


ITALY and E.U. GLOBALIZATION:

Is there an alternative to free trade?

LUIS MATA MOLLEJAS
Compiler

Universidad Central de Venezuela
Ediciones **FACES** 

Deposito legal: LF7520073304545LFX17520073304546
ISBN: 978980002462-1

GLOBALIZACIÓN e INTEGRACIÓN vs. COMERCIO LIBRE

LUIS MATA MOLLEJAS
Compilador

 Universidad Central de Venezuela
Ediciones **FACES**

GLOBALIZACIÓN e INTEGRACIÓN vs. COMERCIO LIBRE / ITALY and E.U. GLOBALIZATION - Luis Mata Mollejas



UNIVERSIDAD CENTRAL DE VENEZUELA
Postgrado de Teoría y Política Económica

CONFERENCIA:

*"INTEGRACIÓN VS GLOBALIZACIÓN: ¿ALTERNATIVAS AL LIBRE
COMERCIO?"*

CONFERENCE:

*"ITALY, EU, GLOBALIZATION: IS THERE AN ALTERNATIVE TO FREE
TRADE?"*

Portada: Carlos Vives

Montaje: Omar García

Deposito legal: LF7520073304545LFX17520073304546

ISBN: 978980002462-1

Primera edición - Caracas 2007

UNIVERSIDAD CENTRAL DE VENEZUELA
Postgrado de Teoría y Política Económica

CONFERENCIA:

"INTEGRACIÓN VS GLOBALIZACIÓN: ¿ALTERNATIVAS AL LIBRE COMERCIO?"

CONTENIDO

PRESENTACIÓN por Luis Mata Mollejas	P. 1
PRESENTATION by Vittorangelo Orati	P. 2
BHAGWATI'S GROUNDLESS POSITION AGAINST PROTECTIONISM by Vittorangelo Orati (IIAESS)	P. 3
REFORMATING GLOBALIZATION: A TRIBUTE TO THE IDEAS OF KENNETH RIVETT by John Lodewijks (University of New South Wales Sydney, NSW Australia)	P. 14
WAR AND TRADE, ADAM SMITH SAID by Andrea Micocci (Universidad de Malta)	P. 28
MICROECONOMIC IMPACT OF GLOBALIZATION IN ITALY, THE NEW SOCIAL FACTORY OF THE METROPOLITAN AREAS by Luciano Vasapollo (Universidad de Roma)	P. 39
FREE TRADE AND NATION STATES THE IMPERFECT GLOBAL ECONOMY by Joaquim Ramos Silva (Universidad Técnica de Lisboa)	P. 89
ECONOMICS IN THE AGE OF GLOBALIZATION by Constantine E. Passaris (Universidad de New Brunswick)	P. 102
LIBERALS AND LIBERALISM by Mario Monforte (Universidad de Napoli)	P. 138
NEW FINANCIAL POLICY FOR UNDEVELOPED AND NOT INDUSTRIALIZED WORLD ECONOMIES by Luis Mata Mollejas and Sary Levy Carciente (Universidad Central de Venezuela)	P. 148

WHAT IS NEW IN THE ANALYTICAL HISTORY OF INTERNATIONAL TRADE: RICARDO-HO-ORATI by Valerio Rappuoli (Universidad de Macerata)	P. 172
RICARDIAN COMPARATIVE COSTS THEORY AND THE HECKSCHEROHLIN THEOREM: A CRITICAL APPRAISAL by Vitorangelo Orati (IIAESS)	P. 184
GLOBALIZATION: THE END OF COMPARATIVE ADVANTAGE?? by Gilbert AbrahamFrois (Universidad de París)	P. 211
THE NEW REGIONALISM: HOW GLOBALIZATION REORDERS THE THREE WORLDS OF DEVELOPMENT by Clark W. Reynolds (Johns Hopkins University)	P. 223
ON PRICE ECONOMIC PATTERN AND AN ASPECT OF GLOBALIZATION by Shosuke Takemura (Universidad de Okayama)	P. 258

UNIVERSIDAD CENTRAL DE VENEZUELA
Postgrado de Teoría y Política Económica

Conferencia

ITALY, EU, GLOBALIZATION: IS THERE AN ALTERNATIVE TO FREE TRADE?"

PRESENTACION

En la primavera de 2006 recibimos en la Maestría de Teoría y Política Económica de la Universidad Central de Venezuela (UCV), una invitación del International Institute of Advanced Economic And Social Studies (IIAESS) de Italia para participar como ponentes en la discusión de una inquietante cuestión: ¿Los procesos de integración y las condiciones de la globalización representan una alternativa al libre comercio?

Por tratarse de una iniciativa italiana, el enunciado oficial del programa singularizaba la pregunta general, al hacer mención específica del caso italiano; pero la presencia prevista de nombres muy distinguidos internacionalmente de la profesión garantizaba que el encuentro abordaría el asunto con óptica más amplia que el de las peculiaridades italianas.

En efecto, en el temario específico, entre otros aspectos, estaba previsto discutir nuevas aproximaciones teóricas, a partir de las provocadoras ideas del anfitrión, Profesor Vitorangelo Orati, en relación al comercio internacional. Propusimos entonces dos asuntos de interés para la Maestría de la UCV: 1º, incorporar explícitamente en el temario el ángulo financiero y 2º, examinar la posibilidad de establecer modos de intercambio entre el IIAESS y las instancias correspondientes de la UCV.

La respuesta favorable a ambos asuntos permitió nuestra participación y la de la profesora Sary Levy en representación del Instituto de Investigaciones Económicas y Sociales y en calidad de coponente; y, finalmente, la edición por la UCV de la totalidad de las ponencias a discutir y que el lector tiene ahora disponible.

No entraremos a glosar la importancia de los trabajos discutidos. El índice del temario abarcado y la reconocida autoridad de los ponentes nos eximen de hacerlo. Solo añadiremos que la difusión digital del contenido de las ponencias extiende al IIAESS de Italia una línea de cooperación, que va más allá de los habituales intercambios de documentos protocolares, colmados de buenas intenciones, pero de incierto cumplimiento

Luís Mata Mollejas

PRESENTATION

I am glad and honoured that the Universidad Central de Venezuela (UCV) has understood and in the same time applied the spirit that inspired the birth and the mission of the International Institute of Advanced Economic and Social Studies (IIAESS). In fact by means the present initiative of professor Luis Mata Mollejas we can assist to a true example of international integration of scientific outlets of the Research than a simple juxtaposition of contributions of scholars of different countries gathered in a beautiful place commonly called International Conference .Usually after such a happening anyone comes back at home, receiving after some years the proceedings.

Other than a new row which enriches the curricula of the participants the international meetings end in this way: just a moment of molecular free exchanges of opinions, followed by perennial protectionist results in terms of scientific atomistic progress. And so forth until the next international trestle bridge (or parade).Thanks the UCV and, namely ,professor Mata Mollejas this time we will assist to a true cosmopolitan dissemination of international character of IIAESS purposes in the field of Political Economy (not that of its modern bad imitation: economics) and linked Social Sciences

" I like to recall that the italian IIAESS congress on Globalization is dedicated to the memory of Paolo Sylos Labini. Paolo Sylos Labini , an outstanding internationally appreciated economist , member of IIAESS International Scientific Board,that has always fought against Neoclassical mainstream and its reductionist paradigm".

I have also to say something about the merit of the papers presented in Italy in the occasion remembered by professor Luis Mata Mollejas, without entering in each of them. As editor of the IIAESS's International Congress about the problems faced by differently sized regional realities with regard the contemporary Globalization I have not previously requested a particular orientation in favour or against this phenomenon. Evidently this is absolutely in line with scientific deontology. Then, it is a question of fact : also with a very different intensity of valuation, no participant to the Italian meeting agree with optimistic and mainstream view about either actual or potential development of Globalization.

Since all the above mentioned scholars ground their positions on scientific arguments it will be these arguments that will show what is the right degree of dissent and distance by the mainstream's Weltanshaung (vision) on globalization to share.

Let me end with a hope inspired to this Venezuelan initiative. I hope that this publication does not conclude but opens the adequate receipt for scientific dissemination. For the future of the dismal science this is more an imperative than an option.

Vittorangelo Orati

IIAESS Rector

Bhagwati's Groundless Position against Protectionism

Abstract

Retaking some motives of his recent radically new criticism to the theoretical foundations of international trade theories (Ricardo and Heckscher-Ohlin theorems), the author shows how Bhagwati's attempt to update the nowadays creed in the free trade besides its contradictory aspects ends to share the scientific fragility of the entire corpus of the doctrine of international economics. International economics that so rests on a house of cards.

O-O-O-O-O

The "impression"¹ of Nobel Prize Robert Solow on Jadish Bhagwati's *Free Trade Today* (Princeton University Press, Princeton, N.J., 2002), translated (*pour cause*) in the Italian edition as *Against Protectionism (Contro il protezionismo*, Laterza, Roma-Bari, 2006) represents an endorsement that authorizes the reader to assume that this scholar is today the main international "authority" in the defence of free trade doctrine and its theoretical background, the vanguard of those brave enemies of protectionism, and a scientific supporter of the globalization phenomenon. That entails that in criticizing the scientific requirements of Bhagwati's position on the foundations of international economic theory we will have to discard any form of sacral reverence towards the theoretical apparatus on which the principle of free trade and the pro globalization policy option rests: namely Ricardo's theorem of "comparative costs" (advantages) and its more modern appendix, the Heckscher-Ohlin (Samuelson) theorem, that has actually become a true and proper article of faith, a dogma.

I have dedicated the bulk of my last book² to destroying the above mentioned scientific architrave of the "received" theory in the field of international trade (economics). Here I will briefly re-propose parts of that reasoning, adding new arguments. Such new arguments are a reaction to the arrogance with which Bhagwati, as the world's recognized champion of the free trade orthodoxy, continues to propagandize this doctrine supported by the blind army of contemporary Ptolemaic representative of the "mainstream".

In his last book, consecrated to fight in favour of free trade and against protectionism, Bhagwati actually begins very badly. In fact, in the very first page of this work the superficiality and fragility of his scientific background in the field of international economics, that actually depends on the more general disease of the contemporary way with which economics is organized, appears clearly: the intellectual division of labour; i.e. that sort of modern or new illiteracy which corresponds to the academic specialization of knowledge. Almost paradoxically this is revealed, on the one hand, when Bhagwati states that the logical foundations of the theory of free trade are present in "The Wealth of Nations", where Adam Smith bases his reasoning on the principle according to which the mutual gains from trade derive from productive specialization which mirrors

¹ "Professor Bhagwati is our most powerful and persuasive advocate of free trade. In this book he does two important things: he punctures all the standard false arguments for protection, and he uses the modern theory of commercial policy to suggest how a balanced approach to trade and social policy might look". P.A. Samuelson does not sound much different with regard to the influential prestige of Bhagwati, defined "a master economist by all trade experts". See the back covers respectively of J. Bhagwati, *Free Trade Today*, Princeton University Press, Princeton, N.J., 2002 and idem, *In Defence of Globalization*, Oxford University Press, Oxford 2004. ² See V. Orati, *Globalization Scientifically Unfounded*, Esquire Publications, Bangalore, 2003; (italian translation) V. Orati, *Globalizzazione scientificamente infondata*, Editori Riuniti, Roma, 2003.

the division of labour.³ While the duty, on the other hand, to define formally the concept was up to Ricardo, who resorted to a very simplified model: two commodities and only one factor of production (labour) with the same and constant productivity of such factor but relative productivity different in the two countries in the production of the two goods. In these statements Bhagwati plays with theoretically badly made pieces of china that he assumes to be rocklike trusts of science. On top of that, Smith's and Ricardo's contributions are not only divergent but incompatible. But Bhagwati is completely unaware of all this. I start with the "two countries" logical foundation of "free trade" by Adam Smith, who on this central topic builds a true specimen of the Robinson Crusoe economic paradigm – strangely slipped to Marx. In fact the renowned Scottish economist deduces the principle of international trade and international division of labour from the more general and "natural" principle that would explain the division of labour *tout court*:

"The division of labour, however, so far as it can be introduced occasions... a proportionable increase of the productive powers of labour. The separation of different trades and employments from one another seems to have taken place in consequence of this advantage"⁴

Here the representative of the Scottish Enlightenment simply decrees that any form of division of labour finds its proper explication in the fact that it is logical; in the case, in the dimension of human economic activity the division of labour would result convenient, i.e. economically "rational".

If it is true that also the concept of "comparative costs" seems anticipated by Smith in an informal way where he says:

"The most opulent nations, indeed, generally excel all their neighbours in agriculture as well as in manufactures, but they are commonly more distinguished by their superiority in the latter than in the former...."

this anticipation is immediately denied by the following lines, where the difference in the productivity of labour among countries in the same industry is clearly stated:

"In agriculture the labour of the rich country is not always much more productive than that of the poor; or, at least, it is never so much more productive as it commonly is in manufactures"⁵.

This way of reasoning is so abstract that it is deprived of any dimension of time and place, in other words of historical meaning. So it is fatal that to exemplify the above principles and statements, Smith is compelled to jump from the isolated producers to a world of traders, which represents an epochal revolution from a mode of production to another as a synchronous phenomenon:

"And thus the certainty of being able to exchange all that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of

³ The part of "The Wealth Nations" where Adam Smith treats this question is the famous chapter I of Book I, with which he opens his economic *magnum opus*, that is entitled: "Of the Division of Labour". See A. Smith, *The Wealth of Nations*, (A. Skinner editor), Penguin Book, Harmondsworth, 1999, p. 109 and following. ⁴ A. Smith, *op. cit.*, pp. 110-1 ⁵ A. Smith, *op. cit.*, pp. 111-2

the produce of other men's labour as he may have occasion for, encourage every man to apply himself to a particular occupation, and to cultivate and bring to perfection whatever talent or genius he may possess for that particular pieces of business"⁶

Not less fanciful tale is that place where Smith in lieu of historical leaps resorts to a synchronous exercise to illustrate the wonder of the logic of the principle of the division of labour. Here in place of the hidden passage from a mode of production to another it is necessary to appeal to peaceful cooperation:

"In a tribe of hunters or shepherds a particular person makes bows and arrows, for example, with more readiness and dexterity than any other. He frequently exchanges them for cattle or for venison with his companions; and he finds at last that he can in this manner get more cattle and venison than if he himself went to the field to catch them. From a regard to his own interest, therefore, the making of bows and arrows grows to be his chief business...Another excels in making the frames and covers of their little huts.... He is accustomed to be of use in this way to his neighbours, who reward him in the same manner with cattle and venison, till at least he finds at his interest to dedicate himself entirely to this employment ... In the same manner a third becomes a Smith or a brazier, a fourth a tanner or a dresser of hides or skins....."⁷

But behind this idyllic picture is hidden another and central phenomenon. Smith the prophet of free and perfect competition, the secular arm of the metaphysical "invisible hand", replaces the cynical fight between the strong and the weak in the capitalist market with a cooperative society. Evidently this appeared necessary to him in order not to jeopardize the extension to the international free trade market depriving it of the common starting point of this geographical form of division of labour and its more general principle. Once the international exchanges must be grounded in terms of reciprocal convenience, then it is necessary for the great Scottish economist to transform himself into an anthropologist. Not less important to note is the fact that also in the boundaries of ethnological report, what Smith's example shows is in any case a revolution: the birth of the division of labour marks an epochal technical progress with respect to former states of "technology". Also in the proverbial illustration of the pin's manufacture, the origin of possible gains potentially to share between international traders is entrusted to technological progress, since this means the rising of the degree of division of labour inside an assigned factory, and nothing Smith says with regard to the same state of technology when he does indicates on the contrary that "opulent" countries excel in both agriculture and manufacture sectors in comparison with more backward nations. Thus it is possible to conclude about the economist of Kirkcaldy that in the field of international trade his statement of mutual gains descending from free trade policy is far from being demonstrated: it is only axiomatically assumed. In fact in presence of different production techniques regarding a couple of commodities and two competitive countries, with free trade ruling in the international market, we will assist to the same consequence of free competition as in the domestic boundaries: the destructive effect for the weakest industries of the less developed country, also if we assume that labour and capital are not transferable from a nation to another. If our arguments above exposed are right, the divergence and the logical incompatibility between Smith and Ricardo on the free trade theory appears convincing. This is evident just considering the

⁶ A. Smith, *op. cit.*, pp. 119-20 ⁷ A. Smith, *op. cit.*, pp. 119 ⁸ A. Smith, *op. cit.*, pp. 109 and following

characteristic of the simplified model of international division of labour of the latter author, that constitutes what Samuelson alludes to and Bhagwati remembers, reporting Samuelson's answer to Stanislaw Ulam who once asked to the famous Nobel Prize what was the less intuitive but important principle in the economic science, and Samuelson cited the principle of comparative costs: the starting point of Ricardo's theorem was in fact the same productivity of labour as *sole* factor of production of two goods that in spite of this give rise to different relative costs inside two different countries. This is the arcane that conflicts with common sense, an arcane that remains unsolved and as such "magically" rescues the theorem of comparative costs.

Only one characteristic is common, negatively, in both Ricardo's and Smith's discourses on free trade: they share the logical fallacy of *regressus ad infinitum*. Namely the fact that their respective arguments in favour of free trade cannot give an account of the beginning of international trade: if international trade is always and mutually convenient for (both) the traders, how to fix along time the passage from autarchy to free trade? Smith feels in some way the scientific exigency to assure historical likelihood to his arguments to avoid the difficulty. Without resolving the problem, he takes again refuge in anthropology. In fact he explains the origin of trade resorting to the primitive axiom of the "human propensity to truck, barter, and exchange one thing for another"⁹ so teaching to the following and "modern" (especially to the contemporary ones) economists the way to escape by the theoretical economic troubles: transforming the "dismal science" into a branch of *philosophia perennis*, i.e. the ontology.

Ricardo, in this revealing his formidable capacity to be a forerunner of the contemporary way to make economic science, is far from feeling this exigency, and typically proceeds according to the principle (!) "if...then" where the confrontation with reality is out of the epistemological requirements of the modern canons of the "dismal science".

What Bhagwati (and Samuelson) do not suspect is the circumstance that the *amoebic* ("monocellular" i.e. grounded on a only one factor of production) model with which Ricardo tries to explain and justify the international division of labour supporting at the same time the principle of free trade, is on the one hand constrained in this essential form by very hard analytical troubles that he has not resolved and that is unsolved to this day in economic science. On the other hand, what the above said scholars (actually the "profession" as a whole) ignore is the fact that, at least in this framework, the common wisdom is right *versus* the science, in this case *versus* the theorem of comparative costs (advantages) that does not reach the necessary consistency, which the literature wrongly believes this theorem owns. Such absence of consistency destroys in particular all the arguments on which the defence of free trade and then the war against protectionism by Bhagwati rests.

1 – Why is the Ricardian "Comparative Costs" model so amoebic?

The intellectual division of labour perhaps explains (but does not justify) how Bhagwati, as skilled scholar of international economics, could be unaware of the theoretical difficulties – actually never surmounted by the economic science – subsumed in the Ricardian incomplete as well as ultra simplified model of comparative costs (advantages).

The central and relevant difficulty – that paralyzes (? freeze) the entire building of the "dismal science" – is that it is impossible to represent with scientific rigour an economic world, with at least two different commodities, that is in equilibrium with respect: 1) to the quantities exchanged between the two industries that produce the two commodities, both produced with different capital/labour ratios (i.e. different technologies; 2) the same rate of profit in both industries.

⁹ A. Smith, *op. cit.*, pp. 117

The two paradigms that could pretend to solve the puzzle are in fact faced by the following problem:¹⁰

- a) The Classical-Marxian paradigm in the famous framework known as “the problem of transformation of values into prices”;
- b) The Neoclassical/Marginalist paradigm in the analytically completely equivalent topic of the representation of the aggregate supply curve, where capital irremediably operates either as a parameter (the known quantity) or as the unknown (the greatness that the model must mathematically quantify).

Now, as Bhagwati himself reminds us, Ricardo’s theorem of “comparative costs” consists of only one factor of production, i.e. labour, that in the two countries produces with the same technology (labour has, in a few words, the same productivity in the two countries) two identical couples of two different commodities. Then, also holding fast everything else, in this picture capital is absent and in this way one of the two equilibriums above said is impossible to conceive. Whether this implies that all the produce is distributed to the only factor of production and then completely consumed without the presence of surplus, the difference between the comparative costs with which the two goods are produced in the two countries remains a dark mystery. Rigorously coherent with the hypothesis of the theorem, namely the same productivity of labour, it is logically inconsequent to put different comparative costs (advantages) in the two countries.

But even if we could grant this contradiction, the “rational choice” to pass from autarchy to free trade to gain mutually by the birth of the international division of labour does not stand logically, since it implies the birth of a new economic agent that – as in the modern framework of the “prisoner’s dilemma” where a third person can decide the different sentences – opens formerly closed markets to the exchanges. To say the same thing differently, to demonstrate his thesis regarding the virtues of free trade faced with autarchy, incorrectly Ricardo changes the cost of his analytical picture during the representation of a same scene; that is, he changes the set of motivations and information of the *dramatis personae* that act in his screenplay, that pass from an atomistic and decentralized economic system to another one, where an aggregative or collective point of view takes the place of an economically less efficient state of production and distribution.

In any case the passage from autarchy to free trade would remain undefined along time, passage which remaining undeterminable shows that such theorem is afflicted by the logical fallacy of *regressus ad infinitum*. This is another form with which “Robinson Crusoe’s economics” leaves his island in the *space* for his island in *time*.

That’s all. No. In fact, also if we miss all the radically critical considerations above, bestowing to Ricardo’s theorem what is not allowable in terms of scientific procedure, there is the fact that his model concerns in any case a static-stationary economic system, without surplus to allocate as investments; investments that represent the necessary (but not sufficient) condition to start a dynamical process of growth or capital accumulation along time. In fact in the lack of a theory of an economic world in the static-stationary equilibriums above considered with at least two commodities, it follows *a fortiori* the lack of a dynamical model of such economic system. And so, also in the best case, to prefer free trade to autarchy is deprived of any judgement of scientific significance in terms of the development phenomenon, that exhausts itself in only one

¹⁰ See V. Orati, *Una teoria della teoria economica*, Utet, Torino, 1997, vol. I, where the entire question of the impossibility for “official” economics to treat rigorously an economic world with at least two commodities, with the deadly consequences on the scientific state of contemporary “economic science”, is discussed at great length. The same author has given a solution to the secular “problem of the transformation of values into prices” by means the criterion of “opportunity value”, see V.Orati ,*Produzione di merci a mezzo lavoro.Saggio attraverso Marx ,Keynes e Schumpeter in occasione di un triplice centenario*, Liguori, Napoli,1984.

marginal(ist)(?)episode. That happens following the passage from autarchy to free trade (thanks to the supposed increase of productivity subsumed in the birth of the international division of labour).

2 – Is the common sense against the principle of comparative costs actually wrong?

It is evident that what Samuelson, at which slips the true arcane of the different comparative costs, said about the not intuitive logic of the principle of comparative costs can regard essentially two cases: a) the absence of convenience, where the relative costs, but not the absolute ones, of two commodities X and Y in two countries A and B are the same; b) “Ricardo’s paradox”, for which also in the case one of the two countries has absolute levels of production of X and Y better than those of the other country, holding fast the same quantity (input) of homogeneous labour employed for each good, it is convenient to open the markets to each other. Seeing deeper in both cases what opposes the principle of the comparative costs to the common sense is the logic of relative costs (prices) in place of absolute costs (prices). But as I have anticipated, in this case common sense is right and “science” is wrong. Apart from the contradiction among hypotheses and thesis that I have shown above, apart from the lack of any capitalistic characteristic of the economic system represented, in the Ricardo theorem in spite of his adhesion to the labour theory of value that allows to appraise economically the commodities in terms of *absolute* value (price), Ricardo resorts to the criterion of *relative* costs (prices) to compel his theorem to the conclusion of mutual convenience trading according to the rule of “free trade”. In fact the bullion is relegated, in Ricardo’s frame on the matter, only to the role of means of payment of the eventual disequilibrium of the ex-import balances of the trader countries, without any other analytical relevance. And also this aspect is linked the unsolved “problem of the transformation of values into prices”, the solution of which Ricardo has in vain handed over the utopian research of an “invariable measure of value”(a “perfect” money)¹¹ of which the bullion is the best proxy for Ricardo.

Let me show how the doctrine of free trade dissolves once the absolute values (prices) replace the relative costs (prices) to compare, according to the Ricardo’s theorem we are talking about (giving as resolved the “transformation problem”).

If in the countries A and B two units of the commodities X and Y are respectively produced with 4 hours of labour and 2 hours of labour and in the country B the same (unitary) quantities are respectively produced with 2 hours and 1 hours of labour (holding fast the hypothesis that the homogeneous labour is indifferently employed in both countries to obtain the homogeneous couple of commodities), moreover if there is a bullion as international currency, the unit of which represents an hour of the same homogenous labour employed (embodied) in the production of X and Y in the A and B, it is clear that the industries of X and Y of the country B will destroy the corresponding industries of A, since the consumers of this country will save a fraction of their income importing X and Y from B. In the case shown, ruling the criterion of comparative costs, the

¹¹ This side of Ricardo scientific detection that of monetary and real aspects of the economic system and the strict links between such sides, have found their destructive (for the economic science) epilogue in the Sraffian or Neoricardian analytical conclusions. The finally “discovered” *invariable measure of the values* by Piero Sraffa in his *Production of Commodities by Means of Commodities*, Cambridge University Press, Cambridge, 1960, does coincide with the death of Political Economy. Since this utopian greatness finds its proper framework in a world that does not correspond to some likely mode of production in economic history, then it is a framework completely built with fancy. I have demonstrated that this lethal conclusion is in line with the logical precept for which *ex falso sequitur quod libet* (Duns Scotto’s law). In fact the *invariable measure of values* should have at the same time the *economic* character of a commodity to operate as *numeraire*, and the *physical* character of invariability, i.e., an extra-economic character which remains untouched by the technological change along the time that evidently affects all the relative (and absolute) prices of the commodities. See V. Orati, *Una teoria della teoria economica*, *op. cit.*, chapter 12, vol. II

exchange between A and B would have been precluded since the domestic terms of trade between X and Y are the same in both countries.

The case of “Ricardo’s paradox” drives at the same result in which also if there are not involved the same comparative costs in the production of the two commodities, if one of the two countries excels in both the *absolute* prices of X and Y, at the place of mutual sharing of the gains consequent the Ricardian international division of labour, the lesser productive performance will see the conquest of the weaker country by the stronger one.

Considering what we have seen, the option towards the relative prices (costs) is only the necessary twist to which Ricardo is constrained faced by the difficulties he meets as follower of the labour theory of value. This leads him to renounce to resort to the absolute values (prices) – replaced by the relative prices criterion – so contradicting common sense with regard to the logic of international competition in an evolved economic system. Economic system that Ricardo must deprive of money and that is in this manner reduced to the rank of a pre-capitalistic economy, where the exchanges are grounded on the logic of barter.

From this analytical context, especially with regard to the lack of capital, it descends that to extend the Ricardian model of comparative costs with its conclusions in favour of the free trade between two (or more) countries marked by the capitalistic mode of production is completely destitute of any logical ground. To operate the opening of the previously closed and autarchic economic systems we need to fix the international terms of trade (international price), or the “scissors” within which this parameters can vary so as to define the limits within which the international terms of trade are mutually convenient for the traders. To this goal it is strictly necessary to set out of the domestic terms of trade of the trading countries and that domestic prices are equilibrium prices. To have such equilibrium prices it is necessary that two equilibrium conditions in both the countries that I have above mentioned are respected: 1) the input/output exchanges between the two industries that produce the commodities X and Y; 2) that such industries gain the same rate of profit. All this holding fast that to produce X and Y *qua* different goods are employed different technologies, i.e. different capital/labour ratio. Since of this last economic model with two (and *a fortiori* more than two) commodities the “dismal science” (economics) does not dispose, and to talk about one commodity economies that trade, ruling free trade it is a nonsense, as well as to talk about the criterion of “competitive costs” is wrong when it conflicts with common sense. On the other hand, does not the birth of the “economics of great aggregates” or macroeconomics mean the definitive surrender of the economic science to the possibility to give account rigorously of an economic world with more than only one good?

3 – The amoebic Ricardian model of comparative costs and the Schumpeterian *Kreislauf*: Another approach against Bhagwati’s faith in free trade policy.

Studying in depth the amoebic structure of the Ricardian representation of the economic systems in the autarkic borders, it is possible to assign to each of such systems the characters of the Schumpeterian *Kreislauf* (circular flow). In fact also in this analytical model there is not “capital” as such but only “means of production”, reduced, by Schumpeter, to consumer goods by means of the exchange value of the former in terms of the latter. Besides, in the *Kreislauf* there is not money alike the Ricardian model of comparative costs! Since Schumpeter had not the intention to confront with the Ricardian and Marxian unsolved problem of the “transformation of the values into prices” but was aware of this problem, he intended to radically criticize the Walrasian model of General Economic Equilibrium (GEE) appealing, as precursor, to the “aggregates”. Far from sharing in some way the logic of macroeconomics as a paradigm grounded on the functional relations among “great aggregates”, and also in this a forerunner, he builds his model of economic development in terms of “microeconomic foundation of macroeconomics”! Actually up to our days the “official” (and less official) economic theory represses Schumpeter’s mortal attack against the GEE model,

that is valid also against any possible Neo-walrasian attempt of formal manipulation: if we should forget all the other difficulties regarding the modelling of an economic system with at least two commodities (the double equilibriums above considered with respect to the exchanges among industries and the presence of a same rate of profit in all the industries characterized by different receipts of production), and then we admit the existence of a certain positive rate of profit, in the static-stationary scenario the forces of the free and perfect competition, remaining constant the state of technology, soon or later will annul the profit and subsumed surplus. In this way the true scientific representation of GEE is that of a Schumpeterian *Kreislauf*, where the state of static-stationary equilibrium of the economic system does imply the zero value of the rate of *productive* interest (profit), thwarting the possibility to destine resources to investments, so cancelling any possibility of economic development.

But now could not the Schumpeterian *Kreislauf* avoid the disaggregate origin of the analytical troubles of the Ricardian model of international trade? Besides, could not the Schumpeterian critical position towards GEE, at the same time, amend the static-stationary character of all the theoretical line Ricardo-Heckscher-Ohlin (Samuelson) in the field of the theory of international trade? We know in fact that the Schumpeterian *Kreislauf* approach has not only a destructive attitude but also a constructive attitude, aiming to enrich economics that lacks of the dynamic theory: building his theory of economic development.

This circumstance for which Schumpeter himself has never manifested the need to revisit the “received” theory in the field of international trade¹² could have relative weight. The same consideration could be valid relative with regard to the fact that in the “literature” there is not a Schumpeterian open model of an economic system that pass from a state of *Kreislauf* to that of a growing (developing, to be actually Schumpeterian) accumulation of capital process. This circumstance is very strange and intriguing. With regard the self-styled Schumpeterian modern models¹³ of international trade this is a question of rubbish, pollutions emitted by the hall of the business schools.

Well, also on the side of Schumpeterian *Kreislauf* approach Bhagwati cannot receive help at all! In fact as soon as we test the Schumpeterian model of economic development, opening the subsumed economic system everything collapses, with paradoxical outcomes.

To prove this affirmation is as easy as unsuspected.

If the dynamics stimulus to the still water of the *Kreislauf* depends on innovation, to finance innovation in the *Kreislauf* panorama, where there is no saving since there is no *productive* rate of interest (profit), the banker, with his credit money (created *ex nihilo*) borrowed by the innovator entrepreneur, nourishes the phenomenon of “forced saving” caused by the (“beneficial”) inflation, (ruling, according to Schumpeter, the quantitative theory of money), since the aggregate demand overcomes the aggregate supply (in the static-stationary equilibrium of *Kreislauf ex definitione* all the economic resources are fully employed), then if there is “free trade”, immediately for the innovator country (*ex hypothesis* abroad the innovation has not occurred) a disequilibrium in the balance of trade takes place with the birth of a deficit, since both the importation and exportation respectively rise and go down.

That’s all. No .The imitation process without bad complications of the inflation can start abroad, and thanks to the linked rising of productivity both a productive rate of interest and the linked saving with which to finance a virtuous process of growth (development) can appear. In the

¹² In his monumental *History of Economic Analysis* (Georg Allen and Unwin Ltd, London, 1954, E. Boody Schumpeter Editor), writing on the subject of international trade (pp. 605 and following) Schumpeter adheres without doubts to the received theory of comparative costs, also if under the form of “opportunity costs”, that thanks to this Haberler’s (Gottfried von) proposal remains valid avoiding the “creed” in the classical labour theory of value.¹³ The allusion regards the excessively celebrated models of “the Product Cycle theory” and the “Theory of technological gap”. See V. Orati, *Globalization Scientifically Unfounded, op. cit.*

first innovator country, on the contrary, we will register unemployment as consequence of the excess of importation over the exportation and from this follows the decrease of aggregate demand and then the fall of GNP.

The paradoxical aspect will consist in the fact that the country that excels in terms of capitalistic “animal spirits” and in the propensity to innovate will remain behind the foreign competitor countries less endowed of capitalistic requisites and attitude requested for the development process.

To conclude on this subject, it is worth making explicit that for Bhagwati not only the Schumpeterian paradigm is unfruitful, but paradoxically would compel him to convert to protectionism to avoid the potential underdevelopment of the country that excels in terms of capitalistic virtues!

4 - Bhagwati's opening to protectionism? On the Second Best cemetery for the modern stylized free trade theory

All the arguments so far unfolded have had a central purpose: to show how scientifically ungrounded is the leitmotif on which the defence of free trade and the aversion towards protectionism by Bhagwati rests.

More precisely, assumed the usual scientific apparatus of international economic theory as incontrovertible, Bhagwati updates and radicalizes the mission of the contemporary standard-bearers by striving to reach two targets at once: linking the prescription of free trade and *laissezfaire* the policies, to apply for a country respectively on the side of international market and inside the domestic markets (double face of a coin in which “TINA” philosophy consists).

The precepts to which Bhagwati entrusts his recommendations are simple to summarize and seemingly opened to give room in some degree to protectionist measures (but whole shebang hides, as we will reveal, the subsumed and really shared “TINA” (There Is Not Alternatives) philosophy.

In presence of market failures (or distortions), the free trade policy would not be necessarily the best choice (*sic!*):

- 1) in presence of domestic market distortion appropriate measures of domestic economic policy are needed to correct the distortion (a mix of taxes and subsidies), after which optimal (optimal or *first best*) trade policy is that to re-establish the free trade;
- 2) if the distortion is external it is needed *theoretically* to lay aside free trade and to resort to the application of tariffs and subsidies¹⁴

The above points, according to Bhagwati, are the basis of the contemporary and most updated doctrine in the field of theory of best governance of international trade. That in the first instance seems to open to the possibility of a protectionist policy. But the apparent soft position of the free trader Bhagwati hides a deceit: in the above point 2 the keyword is “theoretically”.

In fact, after having examined:

¹⁴ See J. Bhagwati, *Free Trade Today*, *op. cit.*, chapter I, J. Bhagwati, V.K. Ramaswami, *Domestic Distortions, Tariffs, and the Theory of Optimal Subsidy*, in “Journal of Political Economy”, n 71, 1963; J. Bhagwati, *Generalize Theory of Distortions and Welfare*, in J. Bhagwati, R. Jones, R. Mundell, (J. Vanek ed.), *Trade, Balance of Payment, and Growth: Essay in Honour of Charles Kindleberger*, North Holland, Amsterdam, 1970.

a) the “Chicago school approach”, and ,accordingly with this position, to have reduced the “external distortion” to the only one relatively relevant case, that of some form of imperfection of free and perfect competition in the international market, taking account of the “many” counter- indications linked to the protectionism and essentially to that of generalized danger of reprisals;¹⁵

b)to have also shared the point of view of the above stream of thought for which it is verified econometrically that external distortion in terms of imperfect competition on international market is negligible so that generally is correct to assume as sufficient proxy that here rules the perfect competition;

c) that the “Public Choice” school of thought is rightly absolutely true blue about the fact that in the case of external distortion the treatment (state intervention by protectionist measures) would be worse than the sickness); Bhagwati, so deeming to have exhausted any other theoretical option and to have demonstrated to be open minded, ends to conclude according to “TINA” strategy, as we will see.

In this way, in fact ,only the above point 1 would remain valid: the public intervention to reestablish the “Nirvana” of the first best or GEE in presence of one of the countless cases of internal market distortions (from the state of sin to heaven on earth).

So that, even if we should forget all we have seen about the impossibility to conceive and to manage rigorously other than a one commodity economic world by the side of economic science, Bhagwati’s profession of free trade faith does rest on the possibility to have a first best state of the economy.

Now, since it is not realistic to suppose that Bhagwati has a religious and mystical attitude towards the concept of perfect competition - in fact when he gives account of the Public Choice position in the matter of protectionist measures he quotes and shares the Public Choice principle for which “the invisible hand is weak, but the visible hand is deformed” – then it is realistic to think that he is totally sceptical that public intervention can completely correct market distortions (failures) to obtain perfect competition (first best) This with regard, evidently, the case of an internal distortion, means that ,at the end Bhagwati retains that the lesser evil is to maintain the distortion rather than to permit the state intervention to re-establish the first best equilibrium.. Then his surrender as Neoclassical orthodox that would consist in conceding something on the side of public intervention in the economic affairs to save the principle of free trade is actually a deception . In fact this conceding is more apparent than real. In fact after many turns there is not space for any measures of protection(ism) in all the cases!.

If this appears as an incontrovertible conclusion, at the same moment it condemns Bhagwati’s free trade theory to scientific suicide. In the case Bhagwati should admit a pubic intervention in the economic system, so renouncing to his adhesion to the anarchical and anti-state precepts of the Public Choice stream of though, this must appear evident recalling that he does not believe in the “Nirvana” of a reachable and actual state of a perfect general economic equilibrium(GEE), or “first best” equilibrium.In fact, as it must be well known, the “second best theorem” does not exclude, on the contrary demonstrates, that in presence of an ordered rising of “distortions” of markets there will be corresponding ordered degrees of equilibriums, each of which represents a corresponding second, third, n-th, “best” or Pareto optimum.

Now if Bhagwati’s world is always out of the “Nirvana” of the first best, as we have deduced from himself, then it is always in second or third ... nth best equilibrium o Pareto-efficient position. Equilibriums that are *ex definitione* equivalent to each other in terms of welfare or economic order or rank of social (collective) preference. With the impossibility to chose among them since they are all optimum.

¹⁵ See J. Bhagwati, *Free Trade Today*, *op. cit.*, especially charter 3.

In this way Bhagwati's own doctrine of modern and less dogmatic theory of free trade appears for what actually is: an empty box with coarse *maquillage*. To summarize the contradiction on which Bhagwati falls as modernizer of the theory of international trade it is sufficient to show that to save the principle of free trade he: 1) Once recognizes the possibility to reach "Nirvana" (GEE or "first best" equilibrium) by means of state intervention (this is the case of internal distortion);

- 2) Meanwhile when he seems to concede the recovering to protectionist measures (in the case of external distortion), Bhagwati adheres to the "realistic" conclusion of Public Choice approach according to which it is better to have the imperfections of the invisible hand than the distortions always provoked by the state intervention.

Then once Bhagwati believes in "Nirvana" (GEE or first best) and simultaneously he refuses the first best optimum as practically reachable in any case. Other side of the same coin, once Bhagwati recognizes to the public sector to be capable to reach the "Nirvana" and immediately after he rejects this possibility. In the best case Bhagwati has no better hope than to establish his free trade belief on the ground of the old doctrine (dogmas) renouncing to his part as original thinker. As we have in fact showed also if Bhagwati should be realistic with regard the utopian state of "Nirvana" or "first best" equilibrium, being satisfied by the idea of the possibility to come as near as possible to such equilibrium, in this way conceding a soft version of "TINA" double formula (namely, *laissez-fair* inside the nations and free trade on the international market), his "new" approach to the doctrine of international trade does result a theoretical failure.

And if it is true, and, as we have demonstrated, the ancient theoretical legacy in the field of international economics is no longer defensible, together with its main corollary of the free trade principle, it appears again clear, via the examination of Bhagwati's self-styled modern school of thought, that "globalization remains scientifically unfounded"!

VITTORANGELO ORATI

Reforming Globalization

A Tribute to the Ideas of Kenneth Rivett

John Lodewijks School of
Economics University of New
South Wales Sydney, NSW
Australia

Abstract :

Examines two books published just prior to Kenneth Rivett's death - After Defensive War and Purpose and Choice in a Donor Nation. These volumes present his life statement. The views he expresses are clearly swimming against the tide of conventional thinking about the modern world and globalization. To advocate pacifism, practise frugal consumption and devoting oneself to improving the lot of the destitute and downtrodden, is not a popular stance these days. Reading these volumes draws one back to an earlier age of scholarship, when economics was a branch of moral philosophy. Rivett is deeply immersed in the historical, ethical and philosophical dimensions of the public policy debates he enters.

--- 0000 ---. 0000 ---.

Kenneth Deakin Rivett (1923 –2004) passed away on the 4th of September. Geoffrey Harcourt said ‘he was an entirely selfless good man’. Damian Grace noted that Ken ‘was a great philanthropist ... His austere lifestyle enabled him to care for others in a remarkable way ... Migrant and refugee groups should be especially grateful to him’. Kaz Kazim observed that he ‘worked away tirelessly, quietly, modestly, without affectations or pretensions, in the Library almost until his last day. ... His simple grace and courtesy left an indelible impression on whoever came in contact with him’. Just a few months before he died, and more than twenty years after his formal retirement from the University of New South Wales, his two companion volumes - *After Defensive War* (DW) and *Purpose and Choice in a Donor Nation* (PC) – were published.

Rivett may be known to Australian readers for the important role he played in the demise of the White Australia Policy and more recently for his concern for the refugees who reached Australia. (His obituary, written by John Nevile and published in the *Sydney Morning Herald* on February 10th, gives a useful overview of these activities). These two volumes, over 900 pages, present his life statement, drawing on the reflective lessons of his experiences and voluminous reading. The views he expresses are clearly swimming against the tide of conventional thinking. To advocate pacifism, practise frugal consumption and devoting oneself to improving the lot of the destitute and downtrodden, is not a popular stance these days. Reading these volumes draws one back to an earlier age of scholarship, when economics was a branch of moral philosophy. Rivett is deeply immersed in the historical, ethical and philosophical dimensions of the public policy debates he enters. He does not have the tunnel vision of the modern specialized academic and canvasses an enormous literature from a variety of disciplines, drawing on ideas from Aristotle and J.S. Mill or whoever else provides him inspiration, yet surprising us as he discusses the latest research findings.

The argument in the two volumes is, in a nutshell, that the present distribution of income internationally is indefensible. Those better off should accord unquestioning primacy to the

task of reducing the unbounded prevalence of suffering. Prevention and curtailment of acute suffering should so dominate our decisions that the developing world is freed of destitution and disease and more gradually of poverty (DW: 12-13). The books are a plea for richer nations to do more to help those in poverty in poorer nations so that the world moves steadily towards more equal per capita consumption between nations. This can be done if consumers in rich countries cut back their expenditures and release resources to meet more pressing needs in poorer countries. There are solid ethical and moral grounds for this course of action. However, rich nations need to have the moral case for this reinforced by clearly perceived self-interest, namely the avoidance of military destruction. The countries that have strong moral claims to be helped out of their poverty have, or will soon have, the means to threaten unimaginable destruction. Greater international economic equality will be a necessary, but not sufficient, condition for avoiding wars (PC:436).

Let us first examine *After Defensive War*, as it is easier to follow than the sometimes tortuous and laborious arguments presented in *Purpose and Choice*, although Chapter 1 of the former is a good summary of the argument of the latter. Rivett argues that there are now 44 nations that are 'nuclear capable' and more than a dozen countries are developing biological weapons. The looming threat of bio-terrorism is particularly frightening with 'at least seventy different types of bacteria, viruses, rickettsiae, and fungi that can be weaponized. We can reliably treat no more than 20 to 30 percent of the diseases they cause' (DW:80). Moreover, with 'the spread of chemical and biological and nuclear weapons, along with ballistic missile technology ... even weak states and small groups could attain a catastrophic power to strike great nations' (DW:83). Richer nations may face 'a terrorist enemy whose avowed tactics are wanton destruction and the targeting of innocents; whose so-called soldiers seek martyrdom in death and whose potent protection is statelessness' (DW:84) so that it may not be immediately possible to attribute even devastating attacks to any particular source.

In this context of September 11 2001, 'rogue states', the 'Axis of Evil', weapons of mass destruction, pre-emptive strikes and the apparent non-rational behaviour of terrorist cells, how should a rich civilized country respond? Aggressively via the military option or non

violently by renouncing war in all circumstances (DW:109)? The first response is to exercise our right to self defence by acting pre-emptively against terrorists: the US has stated that it will 'feel free to use nuclear, chemical, or biological weapons to prevent the production of weapons of mass destruction in other countries, and also in other conflicts that otherwise do not directly engage US interests' (DW:73). But can the military threat be thwarted in a non-violent way?

Rivett presents a careful sifting of the arguments for 'a pacifist experiment' – a non-violent response. Unless a country disarms and is known to be pacifist, then it remains a target and threat to rogue states. But what are the strengths and dangers of a pacifist alternative? The author combs the pacifist literature and the war-time experiences of nations. We are treated, for example, to an excellent chapter 6 of DW on a critical appraisal of Gandhi, nonviolence and non-cooperation, how Gandhi misunderstood Tolstoy and his growing willingness to endorse physical force when non-violence was not achieving its aim. But it is Rivett's views on armed conflict that are most controversial:

Retrospectively, the verdict on British and US involvement in the First World War has been largely negative, even though the Allies had won the war. On the Vietnam War, which was lost, the verdict is now decisively so (DW:159) the case for going to war with the Axis was weaker than was generally thought at the time, or has been generally believed since (DW:189) Japan's rulers were acting against a background of long-standing grievances. They resented not only tariffs, but also that other powers heavily involved in and tolerant of their own imperialism were not extending a similar tolerance to Japan's ambitions. They resented the barriers the English-speaking nations around the Pacific had raised against Japanese immigration, and the immigration-related refusal to include a declaration of racial equality in the Treaty of Versailles (DW:171) Future wars will therefore *not* be justified in proportion as they seem to resemble what seem to have been the issues in 1939-45 (DW:194) The fact that war, once resorted to, can so easily escalate upwards is a compelling reason for no longer resorting to it, even in a limited way (DW:282).

The rightness of going to war should be judged by the likely consequences. With respect to the second World War, Rivett says ‘we are repelled in our innermost being by the Nazis’ attitude to Jews and Slavs’ which was vile, irrational and inhuman (DW:178). However, ‘if Hitler had not been met with military resistance, he would have expelled Jews from Europe but would not have tried to exterminate them’. The Holocaust was ‘a by-product of wartime emotion and circumstances’ (DW:166, 68). These statements of course are highly contentious. In terms of military casualties he noted that of the American soldiers in the Second World War only a relatively small number did any fighting which brought them into mortal combat with the enemy. Of the 11 million men in the American army, only 2 million were in the 90 combat divisions. Of the men actually engaged in fighting, British and American casualties in Europe were about 13 percent killed and 32 percent wounded, almost identical with rates in the First World War (DW:186-87). Furthermore, we learn that only four percent of British and American prisoners held by the Germans died in captivity, compared with 58 percent of Soviet prisoners (DW:301). These are examples of how Rivett investigates some of the costs of armed conflict.

Similarly, the case for Pacifism is evaluated:

A rich democracy will be well advised to take account of all likely outcomes, ugly and less ugly, before it renounces for ever the means of launching disarming first strikes. It will know, however, that unless it does so, some other government or governments may fear that it will launch one, and may hit out at it because of that fear (DW:145-46).

The best possible outcome is that our decision to disarm, so that we are no longer a military threat to other nations, allows us to live in uninterrupted peace. Rivett thinks it is likely that a highly productive rich nation which turns non-violent may be left alone by poorer countries with destructive capabilities – but only if it makes sizeable transfers to poor countries and lets in more migrants from these countries (DW:286). To avoid the threat of invasion or terrorist strikes, a rich nation should be able to absorb poor migrants (within limits) and still produce enough for its output to exceed, by a considerable margin, the consumption plus savings it would itself need in order to stay innovative. The surplus could

then go towards assisting poorer countries (DW:353-54). The poorer nations will be unable to maintain the productivity of economies richer than their own if they seize too big a share of the incomes these generate, and so reduce too greatly the rich nations' consumption. So we need to make some estimate of how much a non-violent nation could be required to pay a threatening nation - the rich nation will most likely still be allowed consumption levels that are tolerable, although modest - and how many migrants it would be required to accommodate (DW:343) to satisfy the aggressor's sense of economic entitlement. But the possibility exists that the transfers may not go to the deserving poor, but rather to a corrupt ruling elite in the poorer country.

It may also be possible that the disarmed country comes under foreign occupation. Rivett examines the potential costs of occupation, torture, and the intensity and psychology of suffering. A worst case scenario is presented by the near-extirmination of those Cambodians whom the Khmer Rouge considered to have the wrong class background (DW:144). Yet he believes poorer countries will use military power to enhance their country's economic position at the expense of richer nations, even if the primary purpose of such attacks is defensive:

Nor, to repeat, can it be assumed that a government willing to take advantage of another country's military weakness will seek economic gains only, nor that it will pursue these in a rational way. It would, however, be a very odd government that was prepared to put pressure on another country and even to invade it, but was quite uninterested in economic gains for itself or anyone else (DW:146).

Rivett agrees that 'total non-violent non-cooperation with a really ruthless aggressor is impracticable' (DW:275) and so there is a need to look at the sort of selective cooperation that is feasible. What sort of collaboration is needed in return for concessions? He hopes that the economic self-interest of the aggressor country will prevent it from interfering with the productive capacity of the richer nation and so maximizing the surplus that can then be siphoned off to the poorer nation.

It is clear, he says, that we currently choose to not share much of our wealth with poorer countries. Rich countries go to war, in part, to maintain high levels of consumption. However, the military option, especially if it is used to defend current consumption levels is outmoded. Rivett states that using violence to protect these consumption levels (via access to middle East oil, for example) is repulsive. We have a duty to limit our consumption and so release resources for meeting more pressing needs and sharing our good fortune with migrants from poorer countries. Releasing a nation's resources from military production is a good start in that direction.

Rivett concludes his examination of the 'pacifist experiment' by noting that:

the changes that members of a rich pacifist nation must make to their lifestyles, if they hope not to be invaded, will have to be considerable. Will any country conceivably adopt such a stance? The answer should be a tentative Yes (DW:396).

It may well be cheaper for the aggressor to keep us as 'aid-giving, migrant-receiving, politically independent people' than bear the alternative costs of a military occupation (DW:406). Whatever one's own judgment on the risks involved with the pacifist option, Rivett's review of the evidence, for and against, provides a valuable service, particularly in a context where the pacifist position is so rarely heard in contemporary debates.

The companion volume, *Purpose and Choice in a Donor Nation*, is a stand-alone volume in the sense that the moral argument for reducing world inequality can solidly rest independent of the national security scenarios examined in *After Defensive War*. So long as need elsewhere remains more urgent there is a moral claim on earners whose circumstances are better. Rivett states that the gaps between consumption levels in different parts of the world 'are morally wrong, so wrong as to cry out for rectification even if moves towards closing them had not also become a condition of international peace' (PC:xiii). Regardless of the security threats, Rivett says we need to relate real income to need more closely and calls for a much greater degree of economic equality internationally.

Yet while the scale of consumption should be influenced by need it also should take into account what each individual was contributing to the welfare of all. Although there is a need to lower the consumption levels of the better-off nations it should not fall below a level that would affect their working capacity. Rich nations need to stay highly productive. In these respects, Rivett parts company with the anti-globalization movement. He believes that productivity and much of the prosperity of the developed countries is helpful to the developing world via trade, foreign investment and technology transfer. In addition he believes that inequality in the ownership of productive assets is not in itself a great evil.

Unnecessarily high consumption levels are his key concern. Individuals in rich countries need to value consumption less and lead a 'moral life'. The hope of helping is the mainspring of morality and to help others where one can is a duty. Unmet needs are more serious elsewhere and so richer countries need to be induced to act more generously towards poorer societies and incoming migrants. This will not happen unless they learn to restrain themselves as consumers and that will only occur if they stop overvaluing consumption and identifying it with prestige and achievement. There has to be a change in consumer culture.

It is acknowledged, however, that most of the ends that consumption serves are immensely worthwhile. It sustains life. It can contribute to health and working capacity. It can act as a carrot that evokes effort. Those that work harder than others should receive a bit more in return as earnings bear some loose relation to contribution to production. So 'almost all Western consumption contributes somewhat to well-being, and much of it is also believed to contribute to working capacity, and hence to the enhanced production' of goods and services (PC:103). It is clear then that only excess or surplus consumption, over and above that required to sustain productive capacity, ought to be redistributed. Consumption should not exceed that which is needed to sustain a person's workforce capacity in order to release resources for more urgent uses elsewhere.

Rivett dwells on the concept of a person's 'net contribution'. A person's net contribution is the difference he or she makes to the well-being of others (PC:116). What is valued is a

person's contribution net of what they consume. Reducing consumption in order to relieve the suffering of others will then be seen as a direct way of maximising net contribution. The most obvious way to increase one's net contribution is to assist the worst-off in lower income countries, whether by gifts or direct service (PC:166). Rivett states that you are making less of a contribution if you earn a high income and spend all your income on yourself and your family when instead you could do a great deal for others. 'Such a man is an irresponsible fool, and should be so thought of' (PC:11). They should learn from people who 'combine a limitless aspiration to serve with voluntary restriction of their consumption' (PC:12). An unskilled worker is unlikely to be a positive net contributor. Negative net contributors make others worse off because of their existence: 'many people consume so much compared to what they produce that the world might possibly be better off if they had never been born and if the resources they use had been made available to others' (DW:13). In overpopulated areas, where workers toil with very low productivity, negative net contributors may be widespread, but some of these could emigrate to countries where they could be vastly more productive. Net contribution declines when we consume too large a share of our economic rewards. From a global perspective, the direct effect of raising one's consumption must be that someone else consumes less.

How far can consumption be cut back without impairing the ability to produce goods and services? Rivett focuses on that part of consumption that is undertaken only for the gratification of vanity and invidious comparisons. Consumers need a jolt to change their attitude away from conspicuous consumption and envy and prestige. What we can change are the *intensities* with which prestige and consumption are desired, to make high consumption less alluring, and to promote the welfare of others. The work of Thorstein Veblen is critically evaluated and use made of the concepts of conspicuous waste, conspicuous consumption and the drive of emulation. Consumption appeals because it confers 'status' and 'prestige' but we need to reject this endlessly wasteful, endlessly seductive, consumer culture.

Chapter 6 of *Purpose and Choice* outlines how consumption might be cut. It tries to establish a norm which richer countries should revert to as a pre-condition for helping

poorer nations. Families, says Rivett, should be small, there should be less time spent on food preparation, they should live in smaller homes - 'waste occurs when wealth is tied up in unduly costly homes on unduly large sites' - or family-sized homes could be shared. Rivett recommends the flatette, in which bathrooms and possibly the kitchen are shared with other households. Families should own fewer objects (so becoming less of an acquisitive society). Cars should be used sparingly and greater use made of public transport. 'The car's future should be in question even if it was safer ... it is a sobering thought that Australian road fatalities have been nearly twice as great as the number of Australians who died in the two World Wars, Korea and Vietnam' (PC:326-27). Copenhagen, where one-third of the city goes to work by bike, has one of the world's lowest rates of transportation deaths. Unnecessary foreign travel should also be avoided. There should be less of what Robert Frank has called 'luxury fever'.

Other aspects of contemporary living likewise earn Rivett's displeasure. Poker machines 'have proved an unmitigated evil' (PC:292). The rearing and slaughtering of animals for human consumption is degrading to every society in which this is allowed and the author suggests pushing our eating habits in the vegetarian direction. Clothes should be easily replaced and low maintenance and remain outside the reach of fashion. We should also reduce the differences in how income groups dress. In terms of our leisure activities there needs a wider acknowledgment that risk overall, not just in sport, is being grossly underestimated. We need to promote less dangerous living (in terms especially of alcohol consumption, smoking and substance abuse).

Perhaps some individuals will make voluntary choices to restrict their consumption and take a stand against societies in which consumption, wealth, prestige and publicity are overvalued (PC:361). We need to applaud consumption patterns that are modest but nonetheless consistent with high productivity. However, a household that spends very little will only deserve our admiration if it uses the fruits of its frugality in order to do more for others. Acts of generosity – such as giving away money - should be performed quietly and without publicity. A choice to live in a particular way provides *some* evidence on how others ought to live (PC:364). Readers familiar with Rivett's own frugal lifestyle,

eccentricities and untiring philanthropy will clearly see that he lived exactly the lifestyle that he wishes to establish as the norm in contemporary rich societies.

Rivett's stance is informed by his version of the ethical doctrine of Preference Utilitarianism – informed preferences should remain the main criterion of moral decision - and particularly by his use of 'consequentialism' under which the rightness of ethical actions is judged by their expected effects. If one adopts the ethical position of consequentialism then it is clear that rich individuals should live frugally because of the greater urgency of claims elsewhere. In rich countries, consumption aspirations are often set higher than is ethically appropriate as there is a moral need for more equal consumption internationally. A consequentialist ethic requires us to treat all persons impartially. Hence you need to focus on more than your own family - there is an 'obvious duty' to give away surplus income (PC:381). In terms of policies, a consequentialist ethic never imposes rigid rules. Many should consume less but some clearly should not. Any change, however, should be incremental change and Rivett takes pains to highlight the exceptions and qualifications to his proposals.

What is clear is that voluntary decentralized choice about consumption is *never* an alternative to redistribution by the state (PC:369). The state needs to impose measures that force consumption to more modest levels. The taxation system is seen as the main vehicle to restrict consumption and to finance foreign aid transfers and release resources to absorb more migrants from poorer countries. Consumption should be taxed more heavily than saving. There is a need to tax luxuries or have a general expenditure tax with rates that rise sharply with a taxpayer's expenditure:

Saving is good; only high consumption expenditure is wrong; and a combination of high rates of tax on high incomes with some exemption for saving, as well as exemptions for most publicly useful giving, is the best way to signal which uses of income are most appropriate (PC:424).

There needs to be a new attitude towards consumption otherwise consumption will continue to drift upwards. Rivett is comforted by Swedish experiences showing that income redistribution can go quite far without serious losses in terms of economic efficiency and freedom for most individuals (PC:420). Yet he acknowledges that in many countries the demands on the welfare state have risen *without* a rise in the willingness to pay for them.

Voluntary charitable contributions are also likely to be small in aggregate, so that foreign aid transfers will only occur on the necessary scale if carried out by governments. The case for more substantial foreign aid needs restatement, says the author, as it has generally assisted economic advance and (harking back to the thesis of *After Defensive War*) ‘Substantial transfers will provide the only means by which the richer nations can avoid being *threatened* with annihilation’ (PC:441). The present scale of foreign aid is too modest, far short of what is needed.

Richer nations have to be far more accommodating to migrants from poorer countries. The freer movement to and settlement in rich countries should therefore be part of any process of international redistribution (PC:78):

Removing all immigration barriers would be a spectacular means of greatly increasing world production while, barring bad political repercussions, also making distribution between individuals more even. Hence, overall the world will almost always be a richer place, the freer migration is (PC:75-76).

Yet there are strong non-economic arguments against very high immigration so it should play only a limited part (PC:386).

The pattern of technological advance also needs redirecting. Technical progress is not sufficiently geared to dealing with poor countries’ problems – less than 10 percent of global spending on health research addresses the illnesses that constitute 90 percent of the global disease burden (PC:74). There is a need for the international redistribution and redirection of innovative efforts from luxury products to production most useful to the poor.

Technology should target acute suffering and play a part in the general movement towards restraint on the part of rich nations and the redirecting of resources to more pressing needs.

How do we respond to this moral treatise? Is it only 'a morality for saints' (PC:26)? Is Rivett someone who deserves praise as an 'Idealist' but whose proposed agenda is subject to reservations as to its workability? Is it likely that the seemingly unstoppable tide of materialism and militarism can be reversed? Is modest spending compatible with happiness in rich nations? What democratically elected government would risk electoral suicide by raising taxes and curtailing consumer choice?

Rivett tells us that sacrifice is almost certain to be necessary as the price of peace in a world made rotten by inequality between the nations (PC:431). It would be nice to have some quantitative feel for the magnitude of this 'sacrifice'. Rivett says we 'need to quantify the feasible cuts in consumption required' (DW:348) but does not provide them. Others have been less circumspect. Jeffrey Sachs, earlier this year, advocated that rich countries must dedicate about 0.5 per cent of their combined GDP to aid - which is about twice what they currently offer, but less than the 0.7 per cent of GDP that they long ago promised to set aside for development. The 0.7 per cent should be the minimum requirement for any very rich country, Sachs states. It is clear that Rivett would regard this as only a desirable first step as he envisaged much larger transfers than this.

Kenneth Rivett has done us a valuable service in presenting moral and ethical arguments and policy proposals that are rarely canvassed in contemporary policy circles. Perhaps his message would have been more influential if presented in a short, pithy book - like Arthur Okun's best-seller, *Equality and Efficiency: The Big Tradeoff* - rather than in two weighty volumes that could in no sense be described as page-turners. Yet Rivett's ideas and pleas deserve to come to the attention of a wide audience. Rivett states that prestige is not always proportionate to gross contribution: the point is proved every time a life of obscure service comes at last to wider notice (PC:209) and work attracting very little prestige may still have been immensely worthwhile (PC:221). This is certainly true in this case and a testament to

a person who conducted his life with dignity, with integrity, with courage and, perhaps most of all, with modesty.

I would like to thank Eric Sowe, John Nevile, Geoffrey Fishburn, Damian Grace, Murray Kemp and Kaz Kazim for detailed comments on an earlier draft.

References:

Rivett, Kenneth (2004) *After Defensive War*, Australian Scholarly Publishing, Melbourne.

Rivett, Kenneth (2004) *Purpose and Choice in a Donor Nation*, Australian Scholarly Publishing, Melbourne.

Andrea Micocci WAR AND TRADE,
ADAM SMITH SAID

I should like to thank Nino Pardjanadze, Oscar Cetrangolo, Luciano Vasapollo, Vittorangelo Orati. None of them is responsible for what I say here.

1. Introduction Globalization is a catchword that seems to capture, rather than a set of actual facts, the wishful thinking of Neoliberal economists, of sedulous politicians who wish not to lose the last train of banalities, and of the impotent protesters looking for a cause empty enough to be without consequences. Nayyar (2006) considers globalization to be a two-hundred years old process, and when we think within the limited structure of economics, that makes as much sense as any other proposal.

But if we look at ancient authors our vision changes. Strabo's geography and, say, Ovid's *Metamorphoses*, just to give two very different examples out of many, make us notice that you could have travelled the whole ancient world feeling at home. Populations and customs were known to each other, and practised cultural and commercial exchanges. You could shipwreck on the rock of Gibraltar or the swamps of Crimea, and find temples to thank your favourite gods for your survival. This much is undeniable: the worry remains whether it comes from the porosity of the borders of the civilizations of the three continents of the "Ecumene", as McNeill (1976,1991) seems to propose, or from the banality of all human political, religious and economic endeavours.

Be that as it may, to the purposes of the present paper globalization is the present phase of capitalist restructuration, that is taking an inexorable financial twist (see my 2005d, Vasapollo et al., 2004). Financialization, like Marx's Volume III of *Capital* told us long ago, thrives on communication technologies, that enhance capital's metaphysical "transformation capacity"¹: perfect transportability across borders is just one of the secondary consequences. As to the rest of the globalization rhetoric, Rosenberg (2002) and Orati (2003) dispose of it once and for all².

In international relations we are faced by the same business as the ancients had. This comes down to war and trade, with culture, religion and opulence/lack of opulence as the main excuses for justifying one's choice between the two. In order to consider globalization within its international relations frame I shall start from the putative father of both Mainstream and Marxist economic practitioners: Adam Smith.

Adam Smith's *Wealth of Nations* (1999) presents us with two intersecting problems: that of the supposed power that commerce has to further the development of capitalism (and hence the wealth of a nation) and that of what wealth (or opulence, the term Smith prefers in crucial moments) is based upon. Commerce enhances the productive capacity of market economies, stimulating technological progress and helping the pre-existent "*natural progress of opulence*" (1999, p.479). This, however, takes place only within the framework of the nation. This reduces market intercourses at the international level to relationships among nations, to which, pace Heckscher, Ohlin, Samuelson and Ricardo, the market framework just cannot apply (see Micocci, 2004c, in preparation)³. The market is powerfully limited by the fact that, for Smith and unfortunately for us too, the main business of international intercourses is war and trade.

The main question is how wealth creation is enhanced (not produced) by commerce: trade produces monetary wealth by "transforming" production into items of monetary (or gold)

¹ In the sense of the so-called transformation problem. See Micocci (forthcoming, 2002a, in preparation). ² This capitalist phase goes together with a reduction of democracy, which cannot be examined here (although, obviously, both war and trade constitute perfect motives to reduce democratic liberties on the base of emergencies). For a thoughtful treatment of this matter, see Giacchè (2005).³ Let alone the fact that the comparative advantages exercise can be classified as mainstream economics only by analogy.

exchanges. This is an indirect way to help opulence. It does not constitute opulence. In fact, in Smith this last is generated by agriculture, natural and human resources, actual material production, technology and its progress, the division of labour, the market functioning in the economic sense (not in the Heckscher-Ohlin sense), population and culture.

While opulence/wealth (in general, hence by implication also within the nation) is material, commerce is the realm of the metaphysics of the transformation problem. Whatever human labour and capital have been expended to make the production that is dealt with is transcended into a non-accurate monetary price determined by the “*higgling and bargaining of the market*” (Smith, 1999, Vol.I, p.134). The monetary means of exchange perform that transformation of values into prices whose theoretical calculation is pointless because it always exists in practice: the essence of capitalism is precisely the transformability of labour, capital and monetary prices into each other at the metaphysical level i.e., paradoxically, in practice (see Micocci, 2002a, forthcoming, in preparation). The condition for this to happen is the presence of its “natural” institutional framework: the nation.

This brings us back to the one question Adam Smith had clear: as long as you find yourself within the framework of a nation – and this is inevitable, hence its presence in the very title of his masterpiece – you are dealing with the question of trade and war. This on the one hand brings to the surface, with the monetary and gold aspect of the transformation determined by commerce, a rather Mercantilistic Adam Smith. On the other, it takes us into the complexities of state – state relationships and their consequences on national budgets and the balance of trade: the disgusting part of the world we live in, made of international economic injustice worsened by bellic supremacy.

In theory capitalism could make the world cosmopolitan, if only the market could work properly, i.e. without the nation. Instead capitalism as we know it has meant, and only can mean, the triumph of mercantilism, nationalism and fascism within the misapplied empty rhetoric of the market.

Section 2 tackles this question from the point of view of economic theory, starting from Adam Smith. It also deals with the metaphysics of it all, which is a Marxist point of view (not the Marxist point of view).

Section 3 examines the wrong horizons that have distorted the view of economic theorists of all sorts.

Section 4 reminds us of the melancholy reality of what we call capitalism in practice, giving further evidence of its metaphysical backbone.

The conclusions will draw the lines, showing that the whole thing boils down to the old transformation problem. Smith knew it, I take.

2. Some Economic Theory “*The annual labour of every nation is the fund which originally supplies it with all the necessities and conveniences of life which it annually consumes, and which consists always either in the immediate produce of that labour, or in what is purchased with that produce from other nations*” (Introduction, Smith, 1999, p.104) We have, inevitably, to base ourselves upon some general propositions to be found in Adam Smith (1999)⁴. The first is the assumption that exchange is natural and innate (1999, Vol.I, pp.119-121). This is what the Young Marx (see Micocci, 2002a) called hypostatizations, a-historical attitudes. This brings us straight to man as a merchant as an outcome of the division of labour (Vol.I, pp.126, 150). In fact once the division of labour is *thoroughly established* the surplus of one’s labour is exchanged: man “*becomes in some measure a merchant*”, and society a “*commercial society*”.

⁴ See my 2002a, in preparation. This serves only to introduce our discussion topic. The thorough discussion of each item is well beyond the scope of the present paper.

The third is both a mistake and a powerful intuition (see Micocci, forthcoming). On p.134 Smith says that *“though labour be the real measure of the exchangeable value of all commodities, it is not that by which their value is commonly estimated. It is often difficult to ascertain the proportion between two different quantities of labour. The time spent [...] the different degrees of hardship [...] of ingenuity exercised [...] must be taken into account [...] In exchanging [measuring] [...] is adjusted, however, not by any accurate measure, but by the higgling and bargaining of the market [...] [according to] a rough equality [...] sufficient for carrying on with the ordinary business of common life”*.

Smith has the right intuition, as we shall see, but commits the mistake to mix, in giving his description, pure theory with reference to reality, here and in general wherever he is faced by a tough problem. This habit has been carried over to modern economics. Pages 139-140 make this clearer in relationship to prices, production and the labour theory of value as a universal measure from *“year to year”* and *“century to century”*.

Smith expects (Vol.I, pp.167-171) that wages would be kept at the actual rate, close to survival, by the collusion of masters and the state. Also (Vol.I, p.172), demand by waged people increases with national wealth mechanically, inexorably.

A relevant problem to our purposes here is well rendered by the long digression on the value of silver of pages 282-315 (Vol.I) (but see also ch.3 of Book V, for another instance of straightforward a-historicity). This is a double mistake: on the one hand it is just a-historical, for which criticism we are back to Marx (Micocci, 2002a, in preparation). On the other hand, the a-historicity simply conceals an attempt to approach the economic chimera of an *“invariable measure of value”*, whose most useless example is Sraffa’s *“Production of Commodities by Means of Commodities”* (1960)⁵. Finally, in the whole chapter on land rent (pp.334 and ff., Vol.I) peasants seem to maximize. Whether this is an explanatory device or a methodological statement, Smith has transmitted it to modern economists.

It might appear from the above that Adam Smith actually is in many important ways the putative father of modern mainstream theory. He even commits the mistake of not seeing the difference between the abstract and the material when theorizing, introducing bits of the latter when the former gives him trouble. But Adam Smith also had tremendous differences with the mainstream.

In the first place he had a labour theory of value (especially pp.131,133, 134, 136 in Vol.I), and as said a conception of the empirical origin of the transformation of values into prices. Second, he had a clear idea of what wealth/opulence consists in (which we summarized in section 1) (pages 104/105, Vol.I) and above all of its origin. This is incompatible with utility value theory and the mainstream exclusive emphasis on exchanges. He was clear that commerce (pages 512, 515-516, Vol.I) was, unlike agriculture, a very fragile way to progress. *“[...] through the greater part of Europe the commerce and manufacture of cities, instead of being the effect, have been the cause and occasion of the improvement and cultivation of the country.*

This order, however, being contrary to the natural course of things, is necessarily both slow and uncertain. Compare the slow progress of those European countries of which the wealth depends very much upon their commerce and manufactures, with the rapid advance of our North American colonies, of which the wealth is founded altogether in agriculture” (pp.515-516, Vol.I).

Most important of all, he realized that commerce was based on monetary deals, which did not contribute to wealth/opulence. He ridicules the Spaniards, whose gold addition he compares to the more correct Tartar belief that wealth consisted in cattle (p.6, Vol.II).

His considerations always drive home the point that wealth and opulence are firmly grounded on material resources, people and technology. Money and gold are the *“non-accurate”* measure, and exchange device, of actual material value, compelled by the need to make *“common*

⁵ See Orati, 1996, Vol.II.

life” go on. “Money gets money” (p.195, Vol.I), and the point is to be able to get the proper initial amount. Stock and capital were the same thing before the division of labour (pp.371/373, Vol.I). “*Money is not part of the revenue of the society it belongs to*” (p.388, Vol.I). Money is money’s worth, not money itself (p.392). It is, also, either capital or revenue (p.437, Vol.I). It follows that commerce does contribute to opulence, though in a fragile way that is marred by its being the concentration of the value into price transformation, inaccurately measured in money/gold in institutionally determined and regulated ways that frame and compel the final “*higgling and bargaining*”. Foreign trade provides a nation with what it does not produce (and can pay for) (p.11, Vol.II). Comparative advantages are then a necessary outcome, duly introduced on p.33 (Book IV, Vol.II) after stating that in capital employment the best individual advantage is society’s advantage (p.30, Vol.II); but “*Nothing [...] can be more absurd than this whole doctrine of the balance of trade*” (p.67, *ibid.*). Balancing trade is an illusion.

While to Smith freedom of trade in critical sectors like corn is an absolute necessity to avoid dearth situations due to the inevitable vagaries of the weather (pages 106, 110, 113, 119, Vol.II), merchants want monopolies abroad just like they have at home by juridical means. What they get from their governments to move abroad is thus encouragements to export (p.77, Vol.II). But the temptation to “*make empires in order to have customers*” is there (p.197, Vol.II), despite “*not two characters seem more inconsistent than those of trader and sovereign*” (p.409, Vol.II). In other words trade (exchanges) is a cause of juridical monsters at home that justify monopoly situations, and of encouragements to move such prerogatives abroad. But going abroad means to have to abandon the specious pseudo-juridical agreements that help you at home. Abroad you are either dealing with a situation that mirrors your own, and hence have to think in terms of comparative advantages (as worked out in Book IV, p.33, Vol.II). Or you have to exert coercion, for you are faced with “*uncivilized*” nations that do not appreciate your own juridical hypocrisy, or by immense areas whose native populations are negligible, which was the case with the American colonies and next century with Africa. A third possibility was that of colonization by monopolistic groups, of which India constitutes a perfect case.

This brings us to the geographical and political horizons that Smith, and the other political economists comprising Marx, posed to themselves. Book V of the *Wealth of Nations* is where the inevitability of the choice between war and trade is dealt with, by means of a discussion of the duties of a sovereign, and in general of a national government. Such duty grows with civilization (p.296, Vol.II). Also the need of magistrates grows with development, for it is determined by the necessity to protect large properties (p.298, Vol.II). The sovereign has to be independent, and there must exist a separation of the judiciary and executive powers. “*The first duty of a sovereign, that of protecting the society from the violence and invasion of other independent societies, can be performed only by means of a military force. But the expense both of preparing this military force in time of peace and of employing it in time of war, is very different in the different states of society, in the different periods of improvement*” (1999, p.279, Vol.II)⁶. “*The first duty of the sovereign, therefore, that of defending the society from the violence and injustice of other independent societies, grows gradually more and more expensive as the society advances in civilization. The military force of the society [...] must, in the progress of improvement, first be maintained by him in time of war, and afterwards even in time of peace*” (p.296, Vol.II).

There is more, and it is very instructive for our present foolishness. “*In modern war the great expense of firearms gives an evident advantage to the nation that can best afford that expense, and consequently to an opulent and civilized over a poor and barbarous nation. In ancient times the opulent and civilized found it difficult to defend themselves against the poor and barbarous nations. In modern times the poor and barbarous find it difficult to defend*

⁶ Smith goes on discussing the “noble” art of war even for nations with a republican attitude.

themselves against the opulent and civilized. The invention of firearms, an invention that at first sight appears to be so pernicious, is certainly favourable both to the permanency and extension of civilization" (pages 296/297, Vol.II).

Were it not for the equation civilization = capitalism, different from Bush's shameful modern version USA = civilization, here we have a painful description of capitalism as we witness it today. Trade and war is its essence at the international level. We are not going to do without nations as long as we stay within capitalism. We can finish by considering Adam Smith's rendition of recent historical development.⁷ "*But what all the violence of the feudal institutions could never have effected, the silent and insensible operation of foreign commerce and manufactures gradually brought about*" (p.512, Vol.I).

Our trip through Adam Smith has laid bare the cruelty of capitalism. War and trade are the trade mark of the international "improvement" of civilization. We have to face the additional, subtler cruelty of his epigones.

Let me summarize: Smith equates civilization with what nowadays we call, with a great deal of approximation, capitalism. Capitalism "*improves*", i.e. it develops, bringing about the "*natural progress of opulence*" and the aggression to the uncivilized, that cannot hold back the mounting capitalist tide. Value is produced by labour but is monetarily determined by the market, in terms of prices i.e. of exchanges. This means that commerce is to do with the transformation of values into prices. In fact, only in this role does it affect the (anyway inevitable) "*improvement*" of civilization. Wealth/opulence is based instead on material items. The institutional framework for all this to take place is inevitably the nation-state.

In other words Adams Smith must reconcile items that cannot be put together. A labour theory of value and an insistence on the material basis of wealth, when conjugated with market logic (theoretical market logic) can only run counter the presence of states, and of institutions in general. Plus, the comparative advantages model that is found in Smith can only surreptitiously take care of the material origin of economic deeds. What it does is to enhance, and give primacy, to the "exchange" part, the monetary *non-accurate* value, the money worth that ought to be nothing but money worth. The Neoclassical are wrong because they are right, and limited.

What they do in fact is to take this unsolved mixture that Adam Smith proposes (remember the device that Smith continuously uses to surreptitiously insert items from reality when the theoretical reasoning leads to dead ends) and simplify it by proposing a simplified summary. They simply abandon the burdensome attempt to historical realism pursued by Smith, extract "exchanges" and the "trucking disposition" and transform it into the *Homo Oeconomicus* we all know about, with the market we know. This last is theoretical, but magically applies to anything empirical.

The most evident advantage of such simplification is that the "transformation problem" (which is, we saw, a problem for Smith) is skipped. It is replaced by the elegant (and silly) escamotage of pretending that prices in monetary terms can be taken as proxies of the exchange activities human economic endeavours are supposed to boil down to. Marshall was most explicit and clear about it (see my 2002a, in preparation), but in practice each of the founding fathers of Neoclassical economics put forward similar arguments. It is this very clarity that has allowed present-day mainstream economists avoid methodological and philosophical discussion (see Micocci, 2004a).

The market has thus become the simplistic core of economic theory, and a label that is stuck on top of every reasoning that can be led back to the just said deceitful simplification mainstream economics amounts to. This has brought about extreme results which nobody seems to notice. For instance the comparative advantages introduced by Smith for international intercourses have

⁷ This is far from saying that Smith's use of history can even compare with Marx's. See my 2002a, in preparation.

absorbed the nation-state part, neglected its war and trade essence, and transformed it into the Heckscher-Ohlin-Samuelson “model”. What is worse, this whole monster is presented as a free market device, while in fact it only serves as a pretext to continue the perverse present situation. I shall not expand on the comparative advantages, referring the reader to Orati (2003). I shall only remind the reader that the essence of the Heckscher-Ohlin-Samuelson is not, nor can it be the market (where is it in the model?) (see my 2004c). Its implicit core is war and trade among nations, just like Adam Smith said. That means that commerce might help growth, while opulence is another thing altogether. This aspect the mainstream practitioners completely miss.

3. Wrong Horizons Let us start from the inexorable progress, in Smith and the mainstream, of “civilization”, i.e. of capitalism. This is supported by the said erroneous reliance upon the intrinsic tendency of man to economically exchange good. The unfolding of capitalism is the unfolding of man’s inner dispositions, and as such is unavoidable: savages might take time to accept it, but firearms do the job when *commerce and manufactures* are not efficient enough⁸.

It is this general mind-numbing intellectual framework that allows belief in everything else, and the acceptance of self-evident contradictions. The liberal utopia of free market, with its political consequences of individual liberty, the good life and peace and prosperity for all, is immediately and sadly betrayed. To a possible world of freedom and brotherhood the evil force of inter-state relations is substituted. National wealth, in Smith just like in the mainstream, must be bent to the Mercantilist straitjacket of the nation-state.

What would the world be like if comparative advantages worked themselves out unfettered? Nobody has even tried to figure out the answer to this question, because everybody knows that the comparative advantages framework is a way to hide the dirty mess that is going on beneath its reassuring promises. The comparative advantages host a Mercantilist ghost, in Smith as well as in the Ricardo-Heckscher-Ohlin version. This last is devised with a Mercantilistic environment in mind. Imagine England and Portugal producing cloth and wine, with different production frontiers, and then imagine they open up their borders to trade, is what we tell the students.

A world of closed nation-states eager to drain through exchange each other’s resources (exchange-determined, not material resources) is what the comparative advantages in Smith as well as in the mainstream is based upon. In it trade performs its role of the place where the metaphysical transformation of values into prices takes place at the international level. This stimulates material production, which is anyway already at work on its own, given its ineluctable momentum. The actual market prices and costs of each nation (determined by their material nature: the labour and capital employed) are modified by the presence of the prices and costs of the other nation mediated by commercial exchanges and their “non-accurate” determination of the price-value transformation. Not a market situation, but fictitious markets, working at different levels, interacting.

The frightening aspect is that this is a never-ending situation: as long as you conceive it this way, it will never evolve into a world market. That would imply the disappearance of the nation-state, and hence of the model itself, and the arrival of the liberal utopia. But nobody seems to want that. Economists seem to be striving to preserve the state and the nation that Adam Smith himself had accepted.

It is then to this problem that we must turn. I hope it is clear from the preceding section that Smith’s sovereign is intrinsically similar to our present-day states in role and functions (hence the presence of imperialism). Mainstream economic theory, with its empty elegance, is covering up for this conservative attitude that precludes any possibility to the liberal utopia ever to be realized. It

⁸ I have shown the powerful (and ominous) analogy of this vision to Hegel’s idealism in my (2002a, in preparation).

even covers up for that general attitude I have earlier called Mercantilistic, but it is more often simply jingoistic, stupidly and sordidly nationalistic⁹. It is therefore of war and trade we are talking about. But in order to do so more knowledgeably we should for a moment come back to the geographical and historical horizons Smith and the mainstream economist seem to have. Here we find a true schizophrenia, that remains to our days and contributes to explain why economic theory is the way it is. Adam Smith had before himself an expanding geographical and historical horizon: whole continents were as yet “*uncivilized*”. Capitalism could have spread there, tearing down all Chinese Walls, like Marx effectively put it. All that is solid could have melted into air. Things, however, did not go that way. Capitalism has not expanded as that powerful economic force it could have been, but as the national interest it in fact was, which Smith for the first accepted. The point was not to favour the (supposed) “natural” tendencies of man and history that made capitalism inevitable (the natural progress of opulence and civilization), but to prevent their actual unfolding. The American colonies, with their dynamic settler population and the enormous material wealth they had in store were, for a powerful instance, to be kept in check. Uncivilized nations had to be submitted, conquered or economically subjugated. Smith notices all this, and accepts it; only, unlike his present-day epigones, he does it intelligently. Expansion meant the illusion that there was a whole world to conquer, which hides the feeling that resources (and territories) were not infinite. The incubus of the stationary state was there, as John Stuart Mill tells us: “*It must always have been seen, more or less distinctly, by political economists, that the increase in wealth is not boundless: that at the end of what they term the progressive state lies the stationary state, that all progress in wealth is but a postponement of this, and that each step in advance is an approach to it. [...] The richest and most prosperous countries would very soon attain the stationary state, if no further improvements were made in the productive arts, and if there were a suspension of the overflow of capital from those countries into the uncultivated or ill-cultivated regions of the world.*”

This impossibility of ultimately avoiding the stationary state – this irresistible necessity that the stream of human industry should finally spread itself out into an apparently stagnant sea – must have been, to the political economists of the last two generations, an unpleasing and discouraging prospect; for the tone and tendency of their speculations goes completely to identify all that is economically desirable with the progressive state, and with that alone” (1998, p.124).

Seeing things from the nation-state perspective was a way to exorcise the spectre of the stationary state. The uncultivated or ill-cultivated regions might run out some day, and the flow of capital find a stagnant sea¹⁰. Economics in the end actually is what Robbins’s famous definition claims it is: the need to make do with scarce resources, i.e. of allocating them. The need to preserve, and indeed to cultivate the ancient and historically persistent way to pursue international relations is overwhelming.

Trade and war insure a dynamic environment from the point of view of economic activity. Whole countries can be industrialized and then de-industrialized, created and then destroyed or transformed. Colonies can turn into states, and sovereign states into colonies. Some states can pretend to threaten the global capitalist order, as well represented by the double fiction of socialist order and military threat of the USSR, that went on for eighty years. After all, just like Adam Smith noticed, modernity and firearms had brought about the supremacy of the West, as we call it

⁹ One could want to argue (I did so in my 2002a) that dialectical, orthodox marxism does the same thing. But this is well besides the scope and aim of this paper. ¹⁰ Here one might want to explore the static vs. dynamic diatribe within economic theory. While it is true that the mainstream does not and cannot accommodate a dynamic approach, it is also true that static models are more akin to what capitalism might potentially be, if left to its own devices without states and institutions. Dynamism supporters might be right, but they are chasing an illusion.

nowadays. It is the uncivilized entities that must fear the invasion of the civilized ones. These last can do as they please.

Not only they can wage war and destroy a country militarily. They have at home a bunch of voracious traders who enjoy a monopoly position, and are constantly pushing for a boost to their international ventures. Such ventures are nothing but the replication, by economic, legal and military force, of the conditions at home. Usefully, economic theorization has got plenty of room for the rationalization of this non-market drive of capitalist nation-states. Imperfect competition, monopoly theory and the theorizations ensuing from the Heckscher-Ohlin can accommodate within mainstream economics all of the possible economic configurations ensuing from these juridical hypocrisies Smith was aware of. Neoliberal bullshit takes care of the dirty parts.

Indeed, mainstream economics is replete with attempts to conjugate legal matters-of-fact with its theorization. They are rather implicit, like in the founding fathers (think of Marshall referring to the average situation of industrial societies), or explicitly expressed (take Williamson's institutionalism, or the law and economics tendency). Some aspects of it are left to "heterodox" theorizations, such as Veblen's and Commons's institutionalism, or Keynesian appeals to state intervention. Some technical questions are entrusted to the division of labour within the social sciences, and given to develop to the companion scholars in sociology, legal studies and politics. The strongest statements about the need for law/institutions accepted and worshipped by everybody are, finally, left to extremist and vociferous co-travellers: take Menger, von Mises and Hayek (see Micocci, in preparation).

Economics also takes (better said, took, for this branch of the discipline is dead) care of the development problems, and of the unjust distribution of wealth, revenues and resources. We could go on and on. Yet the alpha and omega of whatever is being said, and even more incredibly done, is the presence of the nation-state, and the reduction of all the great potentialities of capitalism to trade and war. It is fitting now to say a few words about the monetary/price/financial aspects of whatever described so far.

4. Sad Realities One of the main constituent parts of globalization in the last twenty years, whatever globalization is taken to mean, is the overwhelming role of financial capital. The problem is that we are approaching a situation similar to that feared by John Stuart Mill: foreign direct investments are actively sought by governments, both developed and underdeveloped, and yet they do not bring about the take off of productive activities, unless we count, for the undeveloped countries, the continuing subtraction of their natural resources by multinational corporations based in *civilized* regions.

It is worth deepening the logical aspects of this matter. Money, like Marx said, is the Jesus Christ of commodities. Its presence allows them to transcend their material nature and transubstantiate themselves into a "money worth", a price of exchange that is inaccurate vis-à-vis the labour and capital embodied in them, and which it is simply useless to describe as utility based. It is in fact based on the "higgling and bargaining" that men and their institutions allow.

But besides allowing the transformation of values into prices (of things into commodities, i.e. of the material into the metaphysical), the transcension of the commodities' links to their material nature that permits exchange, money is endowed with the metaphysical properties of multiplying itself. Indeed, this is what makes it capable of causing the existence of prices. The MC-M' circuit is not the only way to do so. Money, to keep to Marx's metaphor, is capable of producing more money (say, interest) just like a pear tree bears pears, and thus to excite human greed far more than commodities and their production. It indeed is the Jesus Christ of commodities.

It is only obvious that the *trucking disposition* of man should make the best of money's property to actually produce the metaphysics of exchange in the capitalist sense, as opposed to the material banality of exchange in general. While large properties of the material kind needed just material guardians to be protected, money, with its material base capable of multiplying itself

transcending itself, needs magistrates: juridical protection, a thing that shares the same metaphysical nature as money itself. It has a material part (institutions, kings, police, tribunals) and a metaphysical capacity to outgrow any material entity, surrounding it in its deadly embrace. It is perfectly transportable, its material core amounting to very little and being amenable to be classified as commerce.

What has helped the recent developments, i.e. the preponderance of financial deals at the world level over material production (wealth/opulence) is the fact that communication technologies, despite not undergoing a revolution¹¹, have finally become instantaneous. Marx's prediction (without even knowing the telephone) in the Third Volume of Capital has come true. One can cause an economic crisis in the Far East from Europe and the USA speculating on currencies in deals that take instants to be consummated, and hence give you no time for moral qualms. Firms like ENRON can be created to fulfil Kropotkin's prediction (Micocci, 2005d) that the future would see firms created to operate on nothing, with the sole aim of a fake growth leading to a closing down to cash a virtual financial value difference.

All this goes to add up to the old-fashioned oligopolistic functioning of capitalism (take the multinational corporations) predicted by Adam Smith. The much celebrated transferability that is claimed to be at the origin of globalization is simply the most vulgar, banal and boring aspect of a general way of functioning that takes place "in the mystery of speculation", but is powerfully brought to Earth by states and institutions and their paraphernalia.

Now we have to wonder what this is all about. We are witnessing an economic world that is more and more, through financialization, moving towards the mystery of speculation, and trusting for its survival those nation-state institutions that, Adam Smith said, manage trade and war. All Neoliberalism is about is opening up your frontiers to trade, and allowing capital to move unfettered. We are sticking to the metaphysics more and more. What about wealth/opulence?

What we have been discussing is all about letting down material production. This has given trade and war a new role, often referred to as "war Keynesism". But it is not so simple. Trade and war are not there just to insure American economic survival. Their role is that of reminding everybody that capitalism is not what it promised to be, that its state institutions are pre-capitalistic in theory and in deeds, and that the erroneous mixing up of theory and reference to reality we call economic theory is here to stay, and should not be challenged. Also, it is meant to make us feel horrified at the actual outcomes of the injustice and violence involved, without realizing that while peace is an empty concept, the demise of capitalism is attainable, and might in turn insure peace.

But what matters most to me is that we should learn the lesson that theory must be done well. It is not economics we should be doing. To be here, staring at the blatant absurdities ensuing from the thought of a prescient genius like Adam Smith, is as useless as feeling bad for the aggression of Iraq. We should be making good theory, and if that produces revolutionary results, then be it.

5. Conclusions We find ourselves in between the Scylla of the nation, the pre-capitalist monster that actual capitalism with its nationalisms has made ever more formidable, and the Charybdis of the metaphysical part of capitalism, its transformation of values into prices we call commerce and that is only indirectly, if at all, to do with wealth/opulence, which is what we should be after. What makes our trip even more dramatic is the possibility that our arrival point is the stationary state: capitalism's apocalypse. No wonder economists prefer to prolong it as much as they can, making their business the management of the single perils of the trip rather than the search for the final destination.

¹¹ Computers and the Internet have brought no new conception, only a most clumsy and poor working logic and a fast transmission capacity.

The result is that our Neoliberal days have enhanced the metaphysical nature of capitalism, and in so doing have had to enhance, to hold things together by force, the nation-state-institutional aspect. The faster capital flows, the closer and regulative must institutions be. This is a perfect environment for the modern pattern of state to state aggression: the strong vexes the weak, economically and militarily. Sadly, we are fully within a “Smithian” framework. But Smith was observing an old world going, and imagining theoretical possibilities: we have not progressed from his time, it seems.

Among the debris we have been exploring we have found mainstream economics, and the so-called transformation problem. This last is revealed (see Micocci, forthcoming) as an empirical fact, not a theoretical problem to solve arithmetically. The transformability of material things into metaphysical items is the most noteworthy aspect of the economic phenomena Adam Smith was witnessing. This is the aspect we must study, and to do so a philosophical approach is needed (see Micocci, forthcoming, 2002a, in preparation).

While we hesitate to take the philosophical direction, we are left with Adam Smith’s war and trade to regulate our lives. Trade is starving whole populations, while Adam Smith’s noble art of war has been converted into the dishonourable art of killing civilians en masse. It is high time we hastened the due change of direction in economic theorizing.

Bibliography Giacchè, V. (2005), “La Democrazia in Ostaggio”, in Lavoro contro Capitale, Quaderni di Contropiano, Rome Micocci, A. (in preparation), Individuality Micocci, A. (forthcoming), “Il Mistero della Speculazione”, Proteo Micocci, A. (2006), “The Fragility of Capitalism, with the Case of Imperialism”, IIAESS Conference Micocci, A. (2005a), “La Presunta Varietà delle Idee Economiche”, Proteo, no.2, 176-184 Micocci, A. (2005b), “Uncertainty in Market Economies”, International Review of Sociology, Vol.I, no.1, 35-49 Micocci, A. (2005c), Review of Orati Globalization Scientifically Unfounded”, Rethinking Marxism, Vol.17, no.4, 647-650 Micocci, A. (2005d), “Competizione Globale ed Imperialismo: Linee di Interpretazione”, Proteo, 1, 110-115 Micocci, A. (2004a), “The Philosophy of Economics”, International Journal of Applied Economics and Econometrics, Vol.12, no.1, 1-24 Micocci, A. (2004b), “Critical Observations on Economics, Taxonomy and Dynamism”, Rethinking Marxism, Vol.16, no.1, 73-94 Micocci, A. (2004c), “Vantaggi Comparati”, Il Ponte, 7-8, 82-98 Micocci, A. (2002a), Anti-Hegelian Reading of Economic Theory, Mellen Press, Lewiston Micocci, A. (2002b), “Sul Misticismo Dialettico dei Marxist”, Il Cannocchiale Rivista di Studi Filosofici, 2, 179-195 Mill, J.S. (1998), Principles of Political Economy, Oxford University Press, Oxford McNeill, W. (1991), The Rise of the West. A History of the Human Community, University of Chicago Press, Chicago McNeill, W. (1976), Plagues and Peoples, Anchor Press, New York Nayyar, D. (2006), “Globalization, History and Development: A Tale of Two Centuries”, Cambridge Journal of Economics, Vol.30, no.1, 137-159 Orati, V.A. (2003), Globalizzazione Scientificamente Infondata, Editori Riuniti, Rome Orati, V.A. (1996), Una Teoria della Teoria Economica, UTET, Turin, 2 Voll. Rosenberg, J. (2002), The follies of Globalization Theory, Verso, London Rosenthal, J. (1998), The Myth of Dialectics, MacMillan, London Smith, A. (1999), The Wealth of Nations, 2 Voll., Penguin, London Sraffa, P. (1960), Production of Commodities by Means of Commodities, Cambridge University Press, Cambridge Vasapollo, L., Casadio, M., Petras, J., Veltmeyer, H. (2004), Competizione Globale, Jaca Book, Milan

ABSTRACT

The models that have been elaborated to analyze Italian economic and productive development have been changing over time. Important methodological and conceptual changes have taken place in order to adapt them to a territorial and social reading of development. Starting from these considerations we shall analyze in what follows some characteristics of the local economies that keep showing the economic and productive centrality of industry, supported by the tertiary sector and by the economic productive function of metropolitan areas. This shows that the political and intellectual faith of the lovers of the little and local, of the economy of the “small is beautiful”, that see the end of “industrial Italy” and in general the “end of work”, is wrong.

Our economic-productive analysis describes the metropolitan areas with structural parameters. What remains outside the scope of such analysis are the parameters concerning the social. Consideration of these is certainly necessary in order to understand the re-structuring and diversification of labour, and will be the object of an articulated analysis we shall undertake in the near future as CESTES PROTEO.

We witness the growth of a tertiary sector that more and more interacts and gets integrated with the other productive activities, especially the industrial ones, contributing to form a new local development model that we can define a “fabric of tertiary diversification” that supports industry. In practice then the tertiary is taking the role of engine of the development model. The structural transformations that are moulding the socio-economic system are determined by the continuous interaction of the tertiary sector with the rest of the productive system, and have been caused by the need to re-define capital productively and socially. To understand them we need disaggregated analyses of the local distribution of productive activities, that must be placed alongside the social and political features. The crisis of the system that emerges from the empirical evidence and is due to the process of transformation of the so-called post-fordist society can be explained by looking at the atypical forms of work that it produces, whose main character is precariousness. Such work is in fact characterized extensively by a form of social cooptation that goes beyond the factory and material work in general, and intensively by means of communication and information, the resources of the capital of abstraction, and intangible capital in general.

Here then the re-definition of homogenous social and economic areas gives the “social factory of the metropolitan area as a social factory diffused in the territory” a country-wide role. The specific and different functions of economic and social activities in the single areas, with areas with similar economic features, are the connective tissue that binds the new mode of Italian capitalist development, with its specificities and its areas of backwardness.

Luciano Vasapollo*

**MICROECONOMIC IMPACT OF GLOBALIZATION IN ITALY.
THE NEW SOCIAL FACTORY OF THE METROPOLITAN AREAS**

**University of Rome "La Sapienza", Scientific Director of CESTES and of the journal Proteo. The author wishes to acknowledge the help of Dr. Marco Alfò and of Dr. Rita Martufi for the data elaboration. This article draws upon the same CESTES research as, and hence partly overlaps with, Vasapollo (2005c, 2006a, 2006b)*

1. Introduction

The statistical-economic reading of development geography has produced in the last 25 years a consolidated branch of research work that, with temporal dynamics, has been considering social and labour organization and the subjective and spatial differentiation of productive activities. This has permitted to consider and study the qualitative and quantitative similarities and diversities in the modalities of socio-economic development.

The models that have been elaborated to analyze Italian economic and productive development have been changing over time. Important methodological and conceptual changes have taken place in order to adapt them to a territorial and social reading of development.

The early models, introduced in the 1960s, supplied a key for interpreting Italian development based on the North-South dichotomy and centred on the industrial sector. From the mid-1960s such models have started to appear inadequate to explain the modifications in the productive settlements and the changes in the development path, which had brought important consequences upon the social fabric of the country.

New analyses were developed, emphasizing the social and local character of economic activities. These new analyses, with the model defined as the "three Italies", make us glimpse at new ways of reading the modalities of economic dynamics, which seek to emphasize the local features of development. They did not pay attention, however, to the political and social meaning of the processes of de-composition of the class unity that the industrial Fordist factory had generated, and which had found its tightest form of aggregation in the Northern industrial area.

The North-South dichotomy alone cannot explain the fragmented and diversified character of the Italian development path. This has in fact been heavily affected by the underdevelopment of some areas, but has also been functional to the variety of the forms of capital accumulation. For instance, this last has contributed to the continued growth of the small enterprises that had developed as an answer to the workers' struggles of the 1960s and 1970s. Such a growth has evolved into a truly institutional model, functional to Italian capitalism and supported by it with the sole aim to pursue a strategy of social control on the working class aimed at limiting social conflict². All this together helps explain the belated

¹ Cfr. Becattini G., (a cura di), *Modelli locali di sviluppo*, Il Mulino, Bologna, 1979.

² Cfr. Becattini G., *Distretti industriali e made in Italy. Le basi socioculturali del nostro sviluppo economico*, Bollati Boringhieri, Torino, 1998.

and dependent development of Italian capitalism when compared to the rest of the Western countries.

Since the second half of the 1970s Italian capitalism takes as its main resource the new productive forms of the industrial district, the network enterprise and the filieres. It thus becomes characterized by specialization of the structures and of the labour force; its activities are spread in multiple territorial localities³. We are in presence of extremely dynamic firm structures, that are continuously changing. Yet the main character of these firms is their specific, local territoriality, that is not necessarily associated with small territorial size. For this reason the studies on socio-economic dynamics concentrate upon the localization of development rather than on its social and political contradictions. As a consequence, they often fail to even individuate their modifications and the true socioeconomic and productive role that the metropolitan structures have been having.

Starting from these considerations we shall analyze in what follows some characteristics of the local economies that keep showing the economic and productive centrality of industry, supported by the tertiary sector and by the economic productive function of metropolitan areas. This shows that the political and intellectual faith of the lovers of the little and local, of the economy of the “small is beautiful”, that see the end of “industrial Italy” and in general the “end of work”, is wrong.

Our economic-productive analysis describes the metropolitan areas with structural parameters. What remains outside the scope of such analysis are the parameters concerning the social. Consideration of these is certainly necessary in order to understand the restructuring and diversification of labour, and will be the object of an articulated analysis we shall undertake in the near future as CESTES PROTEO.

2. Comparing the Main Italian Metropolitan Areas: Similarities and Differences.

In Italy the concept of “metropolitan area” was introduced with the law 142 of 1990, which concerned the largest Italian cities: Turin, Milan, Venice, Genoa, Bologna, Florence, Rome, Bari, Naples. These were defined as “metropolitan cities” (*città metropolitane*). Cagliari, Catania and Palermo are later additions (administratively defined in the Decreto Legislativo 18/8/2000, no.267).

The metropolitan areas examined from the point of view of the population and of the production of national wealth can be classified into two categories:

the GAM (Great Metropolitan Areas), comprising: Rome, Milan, Naples, Turin.

The SAM (Standard Metropolitan Areas) whose GNP varies in between the 20 billions euro of Bologna and the 11 of Bari.

A Censis research⁴ evaluates the GNP of the 11 metropolitan areas where 25% of the Italian population lives (Turin, Milan, Genoa, Venice, Bologna, Florence, Rome, Naples, Bari, Palermo, Catania). 15% live in the metropolitan cities, i.e. in the province capitals of the metropolitan areas. This part of the population contributes 31.4% of the

³ Cfr. Coppola P., *Geografia politica delle regioni italiane*, Einaudi Torino, 1997.

⁴ Cfr. www.censis.it La Ricchezza del Territorio Italiano. This exercise delineates the geography of welfare and estimates GNP for all Italian municipalities. 16 Gennaio 2004, Sintesi, 4. Le Aree Metropolitane e la “Metropolizzazione” del Territorio Ricco.

national GNP, for an absolute value in the year 2000 of 366 billion euros (€25,200 per inhabitant in the average).

For instance Milan supplies €105.5, 52.2% of which are concentrated in the provincial capital, while the remaining 47.8% is in the 105 municipalities of the hinterland. Also, Milan has the highest per capita value, with €34,500 per person. Right below Milan is the Roman area, with 82.3 billion euros, 91.1% of which is to be attributed to the municipality of Rome itself. The value per person is €27.900.

It must be emphasized that in the average the per capita GNP of the metropolitan centres is higher compared to that of the municipalities of the hinterland, which witness to the fact that the main cities remain the true attraction pole for economic activities. The hinterland is usually the areas where the inhabitants of the large cities move their residence.

TAB. 1 : GNP of the metropolitan centre and of the hinterland

-	Metropolitan centre		Hinterland		Total area	
	V.A. (million €)	V. Per capita (thous. €)	V.A. (million €)	V. Per capita (thous. €)	V.A. (million €)	V. Per capita (thous. €)
Turin	25.439	29,4	18.707	24,9	44.146	27,3
Milan	55.074	43,8	50.457	28,0	105.532	34,5
Genoa	15.080	24,7	2.348	18,9	17.428	23,7
Venice	8.317	30,7	6.392	21,7	14.709	26,0
Bologna	11.719	31,6	7.518	32,2	19.237	31,8
Florence	11.615	32,6	5.823,4	26,0	17.438,4	30,0
Rome	74.955	29,4	7.306	18,3	82.261	27,9
Naples	17.536	17,5	14.723	10,9	32.260	13,7
Bari	7.387	23,3	3.610	13,9	10.996	19,1
Palermo	10.890	15,9	1.437,4	8,5	12.328	14,4
Catania	6.304	20,1	3.290,9	11,4	9.594,7	15,9
Totale	244.315	28,4	121.614	20,6	365.929	25,2

Source: Rur-Censis, 2004

It is evident that the metropolitan areas have developed in a significant way despite the incomplete implementation of the legislative and administrative decisions concerning them. They strongly contribute to the development of Italy⁵ as a whole.

A research of the provincial administration of Rome analyzes metropolitan areas considering only 9 of them (Turin, Milan, Venice, Genoa, Bologna, Florence, Rome, Naples, Bari). It supplies some interesting results nonetheless. **Tab.2 Resident population of the metropolitan areas and province capitals**

	% Var. 2001/1991 metropolitan areas	% Variation 2001/1991 provincial capitals
Turin	-3,2	-10,1
Milan	-0,8	-8,3
Venice	-1,3	-9,2
Genoa	-7,7	-10,1
Bologna	0,9	-8,2
Florence	-3,5	-11,7
Rome	-1,6	-6,8
Naples	1,4	5,9
Bari	1,9	-7,5

The table shows the data concerning the resident population of the 9 metropolitan areas considered. The data clearly show that in the years in between the two censuses a strong diminution of inhabitants has taken place in the various cities, in different degrees. For instance Genoa has registered a -7.7%, Florence a -3.5% and Turin a -3.2%.

The population of the metropolitan centres has decreased in between 1991 and 2001, even because there has been a movement towards the small cities. This is mainly due to the increase of rents and of housing prices.

This diminution has been very relevant in cities like Florence (-11.7%), Turin (10.1%), Genoa (-10.1%). Rome felt this phenomenon less (-6.8%). It is worth emphasizing the contraction of the two former industrial poles of Turin and Genoa.

Another fact worth pointing out concerns the productive system in the 9 metropolitan areas. If we look at the number of registered and active firms, we see in all areas except Bologna in the year 2004 (tab.3) a positive variation as compared to 2003. Rome, Milan, Naples are the cities that have the highest growth rate. If we analyze, however, the birth and mortality rates of firms, we see negative rates in most metropolitan areas. Only Milan (with just a +0.1%, i.e. a small increase due to a 1.9% increase in registration, vs. a 1.8% for liquidation of firms), Florence (+0.2%), Rome (with a significant +0.5%) and Naples (+0.2%) constitute an exception.

⁵ Cfr. "La Provincia Si Racconta. Primo Rapporto sulla Qualità della Vita della Provincia di Roma", EU.RE.S, May 2004.

TAB.3. Registered and Active Firms*⁶*Marzo 2004*

	Registrate	Tasso iscrizione	Tasso cessazione	Variazione % sull'anno precedente delle imprese registrate
Torino	221.917	2,7	2,8	1,4
Milano	424.252	1,9	1,8	1,7
Venezia	79.957	2,3	2,4	1,0
Genova	83.425	2,3	2,4	1,2
Bologna	95.733	2,4	2,5	0,0
Firenze	106.346	2,3	2,1	1,3
Roma	389.799	2,1	1,6	1,8
Napoli	255.392	2,1	1,9	1,8
Bari	156.161	1,7	1,8	0,9
Italia	5.898.158	2,2	2,3	1,3

Fonte: Elaborazione Eures Ricerche Economiche e Sociali su dati Infocamere

*Transl. of rows: Registered, registration rate, liquidation rate, % variation of registered firms compared to the preceding year.

It is useful to compare the percentage variation of value added per capita in the year 2002 (table 4) for the nine metropolitan areas. Rome (4.4%) and Venice (5.1%) have the highest growth. Only Genoa shows a negative figure (-1.1%). The average Italian total is +2.6%.

⁶ Cfr. "La provincia si racconta. Primo rapporto sulla qualità della...", op. cit., p.173

⁷ From now on for technical reasons the names of the Italian cities will be in Italian. This should not be much of a difficulty for the average reader: Turin is Torino, Milan is Milano, Rome is Roma, Florence is Firenze, Venice is Venezia, Genoa is Genova, Naples is Napoli.

TABLE 4

Variation of per-capita value added in the metropolitan areas ⁸

Anni 2002-2001 – Variazioni percentuali

	Var.% 2002/2001
Torino	2,0
Milano	1,6
Venezia	5,1
Genova	-1,1
Bologna	2,2
Firenze	2,7
Roma	4,4
Napoli	2,9
Bari	2,6
Italia	2,6

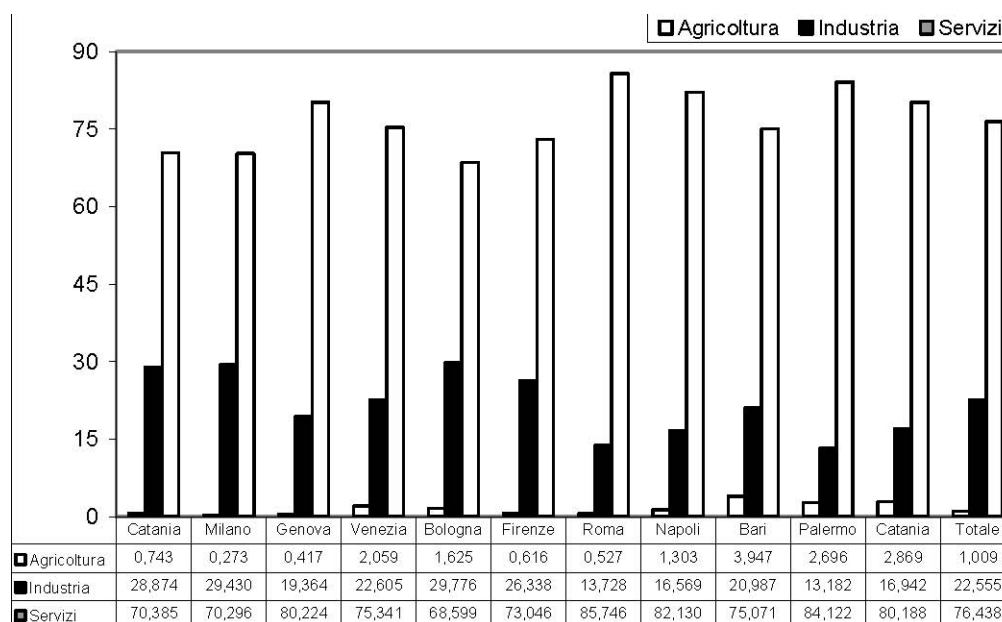
Fonte: Elaborazione Eures Ricerche Economiche e Sociali su dati Tagliacarne

Naples (+2.9%), Florence (+2.7%), Turin (2%), and Milan (1.6%) have moderate values. Together with the negative figure of Genoa, this shows the continuing decline of the old and celebrated “industrial triangle” (Turin, Milan, Genoa).

Graph 1 shows how in all metropolitan areas the added value is higher in the service sector and very low in the agricultural sector.

⁸ Cfr. “*La provincia si racconta. Primo rapporto sulla qualità della...*”, op. cit., p.176

GRAPH 1. Composition of value added per operator in the three productive sectors of the provinces*



***Legend: Agriculture, Industry, Services.**

The per capita income (table 5) confirms the difference between areas. The southern metropolitan areas have an income lower than the national average. Milan is the richest areas of Italy, followed by Bologna, Florence and Rome. Milan is the richest also from the point of view of the GNP, followed by Bologna, Florence, Turin and Rome (see **Graph.2**)

GRAPH 2 Per capita GNP in the metropolitan areas

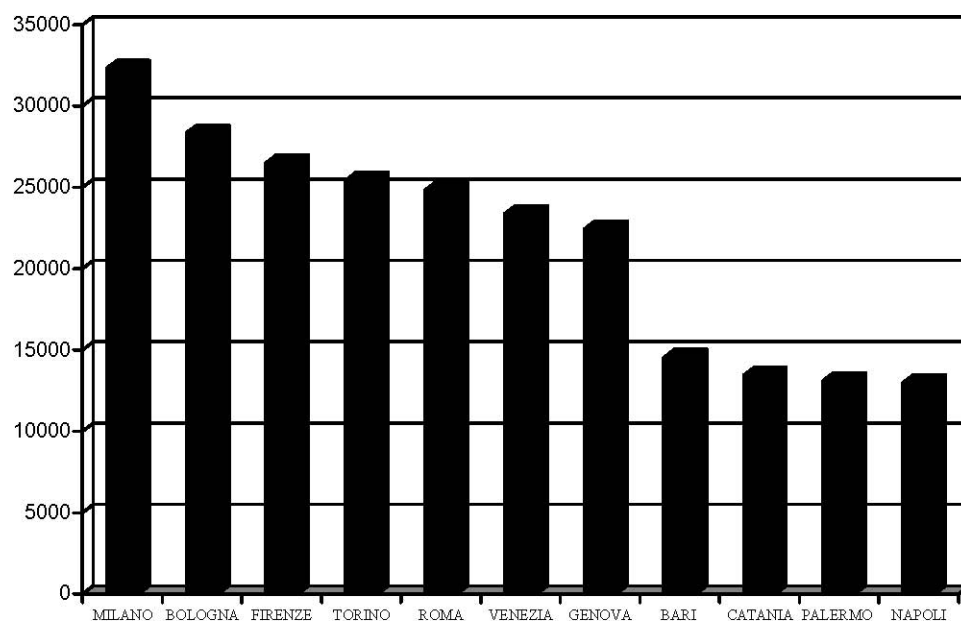


Table 5: Per-capita income in the metropolitan areas⁹*

⁹ Cfr. “*La provincia si racconta. Primo rapporto sulla qualità della...*”, op. cit., p.177

Anno 2002 - Valori assoluti in euro

	2002
Torino	23.769
Milano	30.022
Venezia	24.013
Genova	20.875
Bologna	26.860
Firenze	25.390
Roma	24.525
Napoli	12.649
Bari	13.714
Italia	19.677

Fonte: Elaborazione Eures Ricerche Economiche e Sociali su dati Tagliacarne

*Absolute values (euros)

Family bank deposits confirms this picture (table 6). Milan shows the highest per capita values, followed this time by Rome, and then by Bologna and Florence. All these areas are above the national average. The metropolitan areas of the South (Naples and Bari) present us with values that are significantly lower than the national average.

TAB.6 Bank deposits¹⁰

Anni 2002-2003 – Valori assoluti, variazioni percentuali e valori pro-capite

	2002*	2003*	Var.% 2003/2002	Depositi pro- capite
Torino	15.010.704	16.108.495	7,3	7.439
Milano	36.596.285	40.324.001	10,2	10.883
Venezia	5.453.254	5.886.550	7,9	7.271
Genova	6.893.349	7.292.351	5,8	8.317
Bologna	8.270.555	8.957.563	8,3	9.792
Firenze	8.120.115	8.522.898	5,0	9.132
Roma	33.982.347	37.588.784	10,6	10.147
Napoli	15.729.404	16.415.237	4,4	5.364
Bari	8.229.358	8.509.328	3,4	5.455
Italia	374.171.688	402.004.704	7,4	7.439

Fonte: Elaborazione Eures Ricerche Economiche e Sociali su dati Banca d'Italia

**Valori espressi in migliaia di euro*

¹⁰ Cfr. "La provincia si racconta. Primo rapporto sulla qualità della...", op. cit., p.178

The employment rates (ratio between employed people and the population above the age of 15) (tab.7) further confirms the difference between the Southern metropolitan areas and the rest of the country.

TAB.7. Employment rate ¹¹

Anni 2002 - 2003

	2002	2003
Torino	47,6	48,3
Milano	50,7	50,7
Venezia	48,8	48,9
Genova	43,0	43,6
Bologna	50,4	51,3
Firenze	46,0	48,3
Roma	45,5	46,2
Napoli	33,2	33,2
Bari	38,9	38,8
Italia	44,4	44,8

Fonte: Elaborazione Eures Ricerche Economiche e Sociali su dati Istat

TAB.8 Unemployment rate ¹²

Anni 2002 - 2003

	2002	2003
Torino	6,2	6,0
Milano	4,6	4,5
Venezia	4,6	4,0
Genova	7,6	7,2
Bologna	2,8	2,3
Firenze	4,3	3,9
Roma	7,9	8,0
Napoli	24,7	23,6
Bari	10,8	11,5
Italia	9,0	8,7

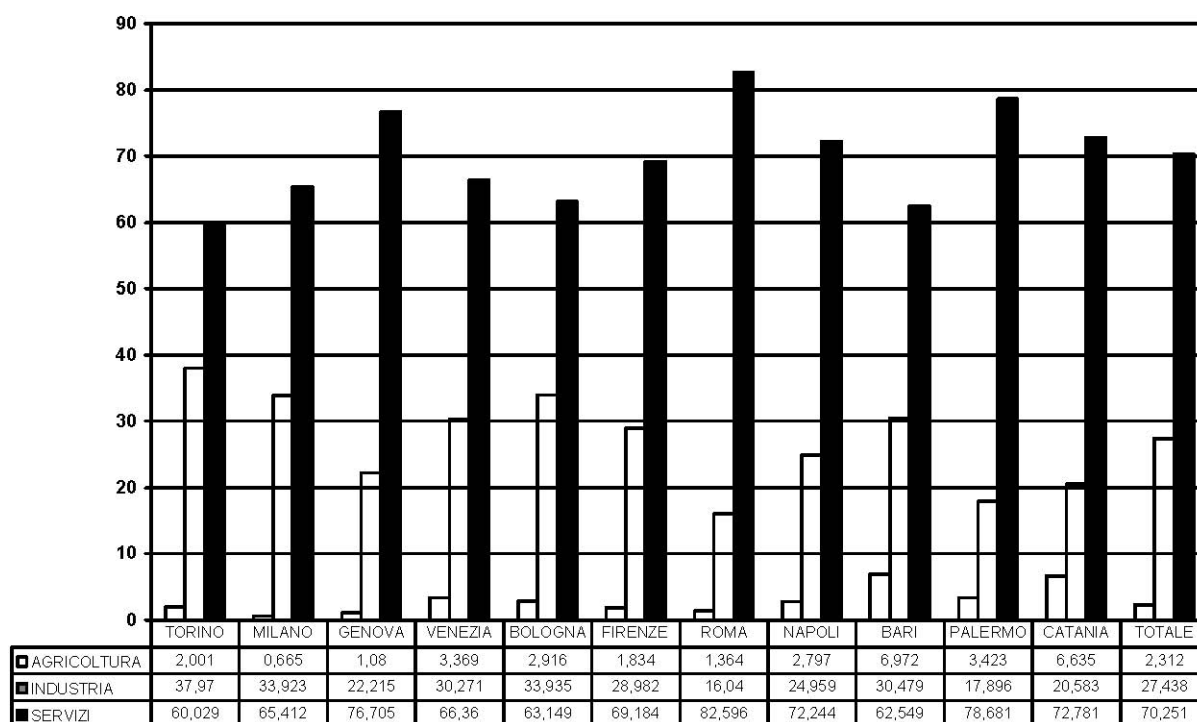
Fonte: Elaborazione Eures Ricerche Economiche e Sociali su dati Istat

¹¹ Cfr. "La provincia si racconta. Primo rapporto sulla qualità della...", op. cit., p.179 ¹²

Cfr. "La provincia si racconta. Primo rapporto sulla qualità della...", op. cit., p.179

Bari and Naples are again much below the national average, with Milan, Rome and the other centre and northern cities well above. Genoa is a bit lower than the national average (43.6%), confirming that it has left the group of the economically developed cities to which it used to belong. The unemployment rate shows the same situation, with Naples having an unemployment rate three times higher than the national average, and the northern cities having significantly lower rates than the national average.

GRAPH.3. % Composition of people employed in the three productive sectors*



***Legend: Agriculture, Industry, Services.**

The distribution of labour in the three productive sectors clearly shows the reduced percentage of agricultural workers in all the metropolitan areas. The service sector prevails in all the 11 areas.

Finally, it is worth having a look at the “social” quality of life, considering schooling and the supply of cultural activities.

TAB.9 Schooling availability¹³ . Values per 10,000 inhabitants of the respective reference age. School year 2002-2003.*

Valori ogni 10.000 abitanti della rispettiva fascia d'età di riferimento – Anno scolastico 2002-2003

Provincia	Scuole per l'infanzia	Scuole elementari	Scuole medie	Scuole superiori
Torino	46,3	62,5	20,9	14,1
Milano	21,2	39,9	18,1	11,8
Venezia	31,3	63,7	21,5	16,6
Genova	36,6	63,1	21,9	16,7
Bologna	38,6	56,7	28,0	19,0
Firenze	52,3	53,9	16,4	15,8
Roma	30,6	34,1	16,4	15,7
Napoli	35,4	32,8	27,3	10,1
Bari	42,1	27,8	13,2	13,8

Fonte: Elaborazione Eures Ricerche Economiche e Sociali su dati Ministero dell'Istruzione

***Row: Province, Kindergarten, Primary Schools, Secondary Schools, Lycees.**

TAB.10 Cultural Offer in the metropolitan areas¹⁴*

¹³ Cfr. “*La provincia si racconta. Primo rapporto sulla qualità della...*”, op. cit., p.202 ¹⁴

Cfr. “*La provincia si racconta. Primo rapporto sulla qualità della...*”, op. cit., p.240

Anno 2002

	Biblioteche/ 100.000 abitanti	Musei Statali/100.000 abitanti	Biglietti cinema/ 100 abitanti	Biglietti teatro- musica/100 abitanti
Torino Capoluogo	3,4	0,8	426,3	116,0
Torino Provincia	14,8	0,5	164,1	29,6
Torino Totale	10,2	0,6	268,8	64,1
Milano Capoluogo	3,7	0,2	460,0	179,0
Milano Provincia	8,7	0,0	214,4	33,6
Milano Totale	7,0	0,1	297,6	82,9
Venezia Capoluogo	10,3	2,6	316,3	359,7
Venezia Provincia	8,2	0,2	196,2	137,1
Venezia Totale	8,9	1,0	236,4	52,4
Genova Capoluogo	3,4	0,7	359,7	72,5
Genova Provincia	11,6	0,4	137,1	15,8
Genova Totale	5,9	0,6	291,8	55,2
Bologna Capoluogo	8,4	0,3	703,9	91,4
Bologna Provincia	13,6	0,2	148,4	70,6
Bologna Totale	11,5	0,2	373,7	79,0
Firenze Capoluogo	5,1	8,7	613,6	224,2
Firenze Provincia	8,7	0,0	190,6	51,6
Firenze Totale	7,3	3,3	351,9	117,5
<i>Roma Capoluogo</i>	<i>1,3</i>	<i>1,9</i>	<i>483,4</i>	<i>128,1</i>
<i>Roma Provincia</i>	<i>6,6</i>	<i>1,7</i>	<i>214,4</i>	<i>18,7</i>
<i>Roma Totale</i>	<i>2,9</i>	<i>1,9</i>	<i>399,5</i>	<i>94,0</i>
Napoli Capoluogo	1,6	1,1	221,2	81,6
Napoli Provincia	2,2	1,2	80,3	11,5
Napoli Totale	2,0	1,2	126,6	34,5
Bari Capoluogo	1,3	0,9	223,5	81,0
Bari Provincia	2,7	0,8	155,6	15,4
Bari Totale	2,4	0,8	169,4	23,7

Fonte: Elaborazione Eurss Ricerche Economiche e Sociali su fonti diverse

- Row: Libraries/100,000 inhabitants, State Museums/100,000 inhabitants, Cinema tickets/100 inhabitants, music-theatre tickets/100 inhabitants.
- Columns: Capoluogo is the province capital, provincia the province. Naples and Bari again show their inadequacy. Rome also belongs to the less developed areas.

3. Economic-Productive Interpretation of the Data Analysis on the Economic-Productive Structure by Clusters of the Metropolitan Areas.

3.1 Generalities

We now propose a statistical data analysis (analysis by principal components and cluster analysis) in order to individuate the economic and productive similarities and differences

between the 11 metropolitan areas. We shall consider economic indicators concerning population, labour market, entrepreneurship, economic results.

As the statistical data concern the provincial administrative entity, and given that we want to investigate the structural similarity of the metropolitan areas, for the first analysis (which we shall call Analysis 1) we weighted the geometric average of the population of the metropolitan area and that of the respective province and the GNP of the metropolitan area and GNP of the respective province. We perform a second data analysis (which we shall call Analysis 2) to verify and confirm the results or the clustering diversity by means of a more refined weighing system of the economic-structural data. For the economic data it relates the per capita GNP of the single metropolitan area to the per capita GNP of the relative province. Concerning the employment data the weighing has been operated relating the population of the metropolitan area to that of the respective province.

List of the indicators used for Analysis 1 and Analysis 2

Population Tipology of indicator

P1 P2	Pop(centre MA)/Pop(total MA)			% % % %
P3 P4	Density per km ²			
P5	[Pop(<14)+Pop(>64)]/Pop(15-64) resident foreigners /ResidentPop. demografic balance/Resident pop.			

Labour market

L1 L2 L3	Employed/Labour force (empl.rate /	atctivit		%
L4 L5 L6	Unemployment rate % empl. (AGR)	y rate)		
	% empl. (IND) % empl. (SERV) %	% %		
	non regular work	% %		
		%		

Entrepreneurship I1	% individual firms			%
I2	evolution rate			%
I3	N° firms / Resident pop.			%

Economic results (W3) R1	GNP per-capita			
R2	% VA (AGR)	R3	% VA (IND)	
R4	% VA (SERV)	R5	V.A. per worker (non AGR)	% % %

Various (W3) E1	Export propensity C1			
Consumption per-capita C2	% food consumption			% %

Weight of metropolitan area vis-a-vis province (YEAR 2002)

W1 Pop(MA)/Pop(PR) %

W2 GNP(MA)/PIL(PR) %

W3 Ratio GNPper capita(MA)/GNP per capita(RP)

Economic results (weighing W3) Others (W1)

Weighing:

ANALYSIS 1: geometric average of W1 e W2

ANALYSIS 2: W3 and, where reported, W1

3.2 Analysis 1

Statistical-economic interpretation of Analysis 1 We can analyze the characterization of the factors referring to the matrix of the components in the output of Analysis 1 (see Appendix). This is fundamental for a correct economic interpretation.

It is evident that the first three factors give us relevant information. The first factor is positively characterized by the P4 variable (resident foreigners/resident pop.), by L1 (empl./lab.force), L4 (% employed in industry), I3 (no. of firms/resid.pop.), R1 (per capita GNP), R3 (% of added value of agric.), E1 (export propensity), C1 (per capita consumption), and negatively characterized by L6 (% of irregular work) and R4 (% of the added value of services).

In general that means that the economic and productive structures of the metropolitan areas individuated by such factor show a good entrepreneurial fabric, prevalently of the industrial kind, with a good consumption structure and a good export capacity, a significant presence of resident foreigners and a low percentage of non-regular work. The areas more endowed in terms of these characteristics are Milan and Bologna, followed by Turin and Florence.

The second factor is positively characterized by P1, i.e. the weight of the population of the centre of the metropolitan area, by L5, i.e. the % of those employed in services, by I1 (% of individual enterprises) and R5, that supplies the value added per worker (excluding agriculture). This second factor is negatively characterized by L3 (% of agricultural workers) and R2, i.e. the percentage of agricultural value added.

In general we can therefore say that this is a factor that identifies areas that are not particularly endowed from an agricultural point of view, with a good propensity to the service sector activities, and an entrepreneurial structure in which individual enterprises have a significant weight. Also, the population is strongly concentrated in the centre of the metropolitan area. The most important area in this respect is certainly Rome, followed at a distance by Genoa and, with differing characteristics, by some Southern areas such as Palermo and Naples.

The third factor is positively characterized by the P5 indicator, relative to demography, and I2, i.e. the rate of entrepreneurial evolution, and negatively by P3 (ratio between working age and non working age population). The areas that take the

characteristics of this factor are Rome, followed by some Southern metropolitan areas such as Naples, Catania and Palermo.

Finally, the cluster analysis clearly points to the formation of three clusters showing a strong internal similitude. Cluster 1 comprises Turin, Venice, Florence, Milan and Bologna. Cluster 2 has Genoa, Palermo, Naples, Bari and Catania. Cluster 3 is made up by the sole metropolitan area of Rome. Let us have a look at the three clusters.

Cluster 1 = Economic and productive vanguard.

These are vast metropolitan areas. Cluster 1 is strongly positively identified by the elements that individuate the first factor, e.g. percentage of employed in industry, percentage of industrial value added, per capita consumption and export propensity. This cluster is negatively characterized relative to factor 2, i.e. the elements that positively individuate this factor certainly do not identify positively this cluster. For instance this group is not characterized by a high percentage of workers employed in the service sector, or by a high percentage of individual enterprises¹⁵, etc. For this cluster the third factor is not statistically significant, that is it does not supply any particular further information.

Therefore the indicators that positively define such areas are in particular those concerning the presence of resident foreigners, a significant employment rate with a high presence of industrial workers, a good entrepreneurial fabric that points to a high concentration of firms in relation to the resident population, a high per capita GNP with a significant chunk that originates in industry, accompanied by a good structure of per capita consumption and a good export propensity.

The quota of irregular labour in this cluster is not very high, and the value added in services not very significant, compared to the other areas.

In summary, this area is characterized by a high demographic rate of increase, due to the arrival of foreign labour attracted by a thriving labour market, with low rates of unemployment and of irregular employment. Industry is the main sector, and per capita consumption and GNP are very high. These are rather wealthy areas.

Cluster 2 = Backward with some tendency to intermediate development; comprising Genoa, Naples, Bari, Catania, Palermo.

This is a group that is characterized by what we saw as some of the features of the second factor. In fact this cluster is identified in a very negative way by the elements that individuate the first factor (which shows little propensity for instance for industrial activity, or for export, or good levels of employment, or in the number of firms relative to the population). At the same time this cluster is defined negatively as to the elements that individuate the second factor, even though to a lesser degree. This group is characterized by elements of structural weakness from a general economic-productive point of view, and only starting from this consideration we can find some characterizing elements. These are not characterizing in a positive manner, but rather in a “not too negative manner”. Important elements are therefore the density of population at the centre of the area, a good

¹⁵ By individual enterprises we mean here the new economic character of the “independent” worker, who is registered as a firm. Often such workers are former employees of firms who have undergone processes of “lean” re-structuring; they therefore represent a kind of disguised wage labour, characterized by the precariousness of their position with respect to their former security as waged labour. See Arriola, Vasapollo (2005).

employment structure in services, an entrepreneurial fabric in which the individual enterprise takes a relevant role.

The apparent anomaly of the presence of Genoa among southern metropolitan areas stands out. This can be explained by the process of de-industrialization, with a total economic and productive re-structuring, of this area that used to be one of the corners of the Italian industrial triangle and now belongs socially and economically with the South.

This cluster can be divided into two sub-groups: Sub-cluster A, formed by Genoa and Palermo. Sub-cluster B, formed by Napoli, Bari and Catania. The similarities in terms of economic, productive, employment and entrepreneurial structure exist in the cluster in general, but they are more marked within each sub-group.

Sub-cluster A has few common elements, but these are strongly characterizing. This sub-cluster is explained by a population mainly residing in the centre of the area, a low demographic rate (lowered by the presence of Genoa), a high degree of dependence and a limited presence of foreigners. What is in common within this sub-group is demography, because both from the point of view of the labour market and of the economic results (except in the service area, where there is a similitude) Genoa and Palermo are rather different, due to their geographic and economic positions. The entrepreneurial fabric shows a low evolution rate and an average presence of active firms, with a low quota of individual enterprises.

Sub-cluster B is formed by Southern metropolitan areas only. Its populations reside mainly in the hinterland areas, there are few foreigners, high unemployment and high labour irregularity. Those employed work mainly in the agricultural sector (except for Naples) and in the tertiary (especially Catania and Naples). Value added comes mainly from agriculture, and as a consequence its value per worker is not very high. Per capita GNP is the lowest of all the metropolitan areas, and the export propensity is extremely low.

Cluster 3 = Diffused tertiary with multiple characterization; comprising only Rome.

This cluster is formed by the metropolitan area of Rome only. This area is negatively defined by the elements that individuate factor 1 (e.g. the productive and employment organization of industry) and in positive by the elements that individuate the third factor, and in an extremely positive way by the elements that individuate the second factor. This happens because the Roman area presents some peculiarities that single it out from the other areas (e.g. the heavy presence of the Public Administration). Its population is mainly gathered in the metropolitan centre, with a strong presence of foreigners that raises the demographic rate. Rome is strongly characterized by the presence of people employed in the tertiary sector, which is the main contributor to the creation of value added. As services do not lend themselves well to export, the export level remains low. This is one of the factors that differentiate Rome from the metropolitan areas of the centre-north, that have a more enhanced industrial presence. The entrepreneurial fabric shows a high rate of individual enterprises and a high rate of evolution, which guarantees a turnover but not stability.

Therefore, with respect to the economic and productive characteristics of the metropolitan areas of the second cluster, we notice a higher centralization of the population, the presence of individual enterprises, and a strong rate of employment in the services, with a significant realization of value added per worker of a non-agricultural nature. Differently

from all the other clusters, in Rome the percentage of people employed in agriculture is particularly low, as well as the share of added value realized in agriculture.

3.3 Analysis 2

Statistical-economic Interpretation of Analysis 2. As said before, in order to look for confirmation of the results so far obtained a further analysis has been pursued on the same statistical and economic indicators as Analysis 1, changing the weighing system (see the Appendix for the output of Analysis 2). This way the economic-productive indicators are weighed through the per capita GNP of the metropolitan area/per capita GNP of the relative province, while all the other indicators concerning population, labour market and entrepreneurship have been weighed with the population of the metropolitan area/population of the relative province ratio.

The final result of the clustering of the metropolitan areas not only remains substantially unchanged: it is confirmed and enriched.

In this analysis the matrix of components shows that factor 1 is positively characterized for the indicators P3, P4, L1, L4, I1, I3, R1, C1, and negatively for the indicators L3, L6, R2, R4. For this factor the cities of Venice, Florence, Turin, Bologna and Milan are positively characterized. Milan is the most characterized in this sense.

As to factor 2, it gives evidence to Genoa and the metropolitan areas of the South (except Bari, that is different from other Southern areas) and Rome, that is different from all the others, taking all positive characterizations relative to the elements that individuate this factor.

The positive characterization of factor 3 signals in particular the metropolitan areas of Rome, followed by Bari. This factor is identified by elements that can be defined as of an intermediate nature compared to those that characterize factors 1 and 2: almost as an intermediate positioning between metropolitan areas with a strong economic and productive character, industrial and advanced, and those more backward that still fail to take off into equilibrated growth.

Like in the preceding case, the cluster analysis shows three groups: **Cluster 1 = Economic and productive vanguards; comprising Milan, Turin, Venice, Bologna, Florence and Bari. Cluster 2 = Backwards and with tendencies to intermediate development; comprising Genoa, Palermo, Naples and Catania. Cluster 3 = Diffused tertiary with multiple characterization; comprising only Rome.** The analysis of the data shows that cluster 1 is positively identified by the elements that individuate factor 1, and partly by the elements that individuate factor 3, while it has a strong negative characterization for the elements that explain factor 2.

Cluster 2 is characterized in a strongly positive way for the elements that individuate factor 2, and in a significantly negative way for the elements that individuate factors 1 and 3.

Cluster 3 is instead characterized in a significantly positive way by the elements that individuate all of the 3 factors, with a stronger characterization for the elements of factors 2 and 3.

It is evident that the groups that have been created are similar to those of Analysis 1, with the same economic, productive and employment characters.

The most important result is the passage of the metropolitan area of Bari from the second to the first cluster. This means that, modifying and refining the weighing system

and enhancing in it the aspects relative to the productive structure meant as capacity to produce economic wealth with specific elements of its per capita distribution, and differentiating the weighing system (i.e. weighing the economic data with a directly productive-economic ratio, while the population and employment data are weighed with a specific population and employment indicator), the structural and economic-productive characters are emphasized. This way all the economic and structural tendencies that were shown in Analysis 1 are strengthened. Some similarity in the clustering are also better perceived, that lead to emphasize the role developed by a metropolitan area like Bari, which is heading towards an economic structure of advanced type, with the potentiality to represent a reference point for the whole development process of Southern Italy.

Let us now proceed to a more detailed description of the similarities and diversities between areas.

With references to the graphs attached we can notice that for all the indicators considered in Analysis 1 and 2 the single metropolitan areas differ in a positive and negative sense from the average. We thus get parameters of over-and under-endowment for each indicator. In sum, at least for the most important indicators and the most evident results, we can individuate the similarity or dissimilarity between the various metropolitan areas with respect to the endowment structure relative to the average values.

This can be backed up through the reading of the matrix of the distances (or matrix of dissimilarity), that supplies us with the similitude link between the different metropolitan areas.

Matrix of the Distances for Analysis 1

This matrix shows for Turin that the metropolitan areas that in general have a more similar structure are Milan and Florence, while the most different are Rome and Bari.

Considering Milan, the metropolitan areas with the most similar structure are Florence and Turin, while the most different are Rome and Bari.

The areas that have a more similar structure to Genoa are Palermo and Florence, and the most different are Bologna, Rome and Naples.

The most similar to Venice are Florence, Turin and Milan, while the most dissimilar are Rome and Naples.

The most similar to Bologna are Venice and Milan, the most dissimilar Rome and Naples.

For Florence, the similar ones are Milan and Turin, while the different ones result to be Rome and Naples.

Rome is greatly different from all the other metropolitan areas, representing an area that cannot be clustered with the others. It is characterized by its own, peculiar and specific social, economic and productive character.

Naples as well is rather different from all the other areas, even though we can, with some stretching of the evidence, show that the least dissimilar is Catania, and the most different Rome and Bari.

Bari too presents a peculiar character, although we can again show that the most similar metropolitan areas are Venice and Palermo, while the most different are Rome and Naples.

The matrix shows that for Palermo the most similar metropolitan areas are Catania, Bari, Florence, Venice and Genoa. The most different ones are Rome and Bologna.

Finally, the matrix shows that for Catania we find similarities with Palermo and Naples, while Rome, Genoa, Milan and Bologna are the most dissimilar.

Matrix of the Distances for Analysis 2

The study of the matrix of distances for Analysis 2 confirms in general what Analysis 1 has shown.

The matrix confirms that the metropolitan areas whose structure is more similar (or less dissimilar) to that of Turin are Milan and Florence, adding to these Venice and Bologna. The most dissimilar are again Rome and Bari.

Milan is similar to Florence and Turin, adding, differently from Analysis 1, Venice and Bologna. The most dissimilar are again Rome and Bari, to which Naples and Palermo are added.

The metropolitan areas that are more similar to Genoa are Florence, and even more evidently Palermo. The most different are Rome, Naples and Bari.

Venice is similar to Florence, Turin and Milan; to these Bologna is added. It is very different from Rome, Genoa, Bari.

Bologna is similar to Venice and Milan, and Turin can be added. The most different are Rome, Bari and Palermo.

Florence can be put together with Milan and Turin, and there is an evident and strong similarity with Venice. Rome and Naples are the most different.

Rome's peculiarity is confirmed.

Naples too is rather different from all the others. The least dissimilar is Catania, to which Palermo can be added. The most different are Rome and Bari.

Bari's peculiarity is also confirmed. Tendentally, the most similar areas are Venice and Florence, and the most dissimilar Rome, Naples and Genoa.

Palermo is most similar to the metropolitan areas of Catania, Venice, Naples and Genoa, with Rome and Bologna the most different areas.

This matrix confirms also that for Catania the most similar areas are Palermo and Naples, with Rome, Genoa and Milan the furthest.

If we make a hierarchical classification we can put all the Southern areas in a single group, and all those of the North in another.

The metropolitan areas of Rome, Bari and Genoa instead are peculiar. Genoa in particular, as said, despite being a northern town can be compared to those of the South, above all at the demographic level. It also presents some structural economic characteristics of the South. In fact it differs from the North for the percentage weight of employment in industry and the percentage of industrial value added, whose values are well below those of the northern metropolitan areas. We can thus identify a strong process of de-industrialization and a backwardness at the economic, productive and employment level. Plus, the demographic characteristics make it similar to the Southern areas.

The characteristics of the Centre-South areas are: the prevalence of the tertiary sector in terms of employment percentage; the reduced presence of the industrial sector; a limited export propensity; unemployment; the presence of non-regular workers; the modest quotas of per capita GNP and of consumption expenditure. Most of this information signals that the situation of the metropolitan areas of the South is characterized by a condition of poverty and social malaise when compared to the northern areas.

It is worth emphasizing that the metropolitan area of Bari shows some "Northern" features. In particular, Bari has an above average endowment in comparison with the other

areas for employment in industry and in agriculture, the percentage of industrial value added, the firms/population ratio, food consumption, and it has a good percentage of added value realized in services. Coming to all the other indicators instead, it is characterized by the typically Southern underendowment. We can therefore say that the metropolitan area of Bari, though it still structurally remains a Southern area, presents some economic and productive tendency towards a more equilibrated growth, oriented towards an intermediate development with industrial and tertiary features that go together with, and strengthen, agriculture.

The area of Rome is a special case, representing a tertiary area with diffused and advanced entrepreneurship.

The social and economic characteristics common to the Northern areas are the demographic structural similarity, a good performance of the labour market indicators with unemployment rates lower than the average, an industrial employment above the average despite the evident processes of de-industrialization and industrial decline, and a still good performance of industrial value added. To this must be added an excellent export propensity (that Genoa lacks) and a good consumption capacity due to an over-endowment in terms of per capita GNP.

4. Some Final Considerations: the Factory of the Metropolitan Area as the New Diffused Social Factory.

The analysis here pursued confirms the results of two former research exercises¹⁶ performed by the same author, clearly indicating that the transformation of the geography of development in Italy in the last twenty-five years has taken place due to a process of industrial decline rather than de-industrialization, accompanied by processes of implicit and explicit tertiarization, with qualitative and quantitative transformations of the services sector and of the activities within it. These transformations are the cause of paramount changes in the re-definition, specialization and diversification of labour, producing mass precarization and structural unemployment.

We witness the growth of a tertiary sector that more and more interacts and gets integrated with the other productive activities, especially the industrial ones, contributing to form a new local development model that we can define a “fabric of tertiary diversification” that supports industry. In practice then the tertiary is taking the role of engine of the development model.

It is in this framework that we must read the great importance that is given in the literature and in politics to the new concept of “territorial entrepreneurship”, that is projected beyond the industrial district. This whole process is defined by the relations of behavioural coercion that take place between enterprises and the local community. What this comes down to is a forced self-regulation of the supply and demand of labour, realized by means of the marginalization, precarization and expulsion of the non-compatible economic and productive subjects.

In the light of this socio-economic interpretation we can analyze the technological and productive transformations that characterize local areas, determining the growth of territorial networks that are formed around great firms with strong local connotations, causing the birth of a “social factory of the metropolitan area”. This keeps having an industrial character resulting from the joint de-verticalization of big productive plants with

¹⁶ Cfr. Vasapollo, L. (1995a, 1995b).

strong connotations of local productive specialization. Such process at the same time produces a situation of social domination by means of the modalities of access to the job and consumption markets. This causes the precarization of the whole social life of the labouring classes.

The structural transformations that are moulding the socio-economic system are determined by the continuous interaction of the tertiary sector with the rest of the productive system, and have been caused by the need to re-define capital productively and socially. To understand them we need disaggregated analyses of the local distribution of productive activities, that must be placed alongside the social and political features. Also, attention must be paid to the new entrepreneurial phenomena (the one-man firms), that conceal forms of subordinated labour, precarious and without the average guarantees, and often cover up for the actual expulsion from the productive system. Such processes need new interpretive logics, new tools that analyses of a "Fordist" type lack.

The crisis of the system that emerges from the empirical evidence and is due to the process of transformation of the so-called post-fordist society can be explained by looking at the atypical forms of work that it produces, whose main character is precariousness. Such work is in fact characterized extensively by a form of social cooptation that goes beyond the factory and material work in general, and intensively by means of communication and information, the resources of the capital of abstraction, and intangible capital in general.

Here then the re-definition of homogenous social and economic areas gives the "social factory of the metropolitan area as a social factory diffused in the territory" a country-wide role. The specific and different functions of economic and social activities in the single areas, with areas with similar economic features, are the connective tissue that binds the new mode of Italian capitalist development, with its specificities and its areas of backwardness.

This is, therefore, only the beginning of a work of analysis that must be developed in various directions. The central point is the new labour figures that are determined by the transformation of the local productive activities in the metropolitan areas. To this task CESTES PROTEO will devote its next efforts.

APPENDICE OUTPUT ANALISI 1

Analisi fattoriale

Matrice di correlazione(a)

a. Questa matrice non è positiva definita.

Comunalità

	Iniziale	Estrazione
P1	1.000	1.000
P3	1.000	1.000
P4	1.000	1.000
P5	1.000	1.000
L1	1.000	1.000
L3	1.000	1.000
L4	1.000	1.000
L5	1.000	1.000
L6	1.000	1.000
I1	1.000	1.000
I2	1.000	1.000
I3	1.000	1.000
R1	1.000	1.000
R2	1.000	1.000
R3	1.000	1.000
R4	1.000	1.000
R5	1.000	1.000
E1	1.000	1.000
C1	1.000	1.000

Metodo di estrazione: Analisi componenti principali.

Varianza totale spiegata

Componente	Autovalori iniziali			Pesi dei fattori non ruotati		
	Totale	% di varianza	% cumulata	Totale	% di varianza	% cumulata
1	8.927	46.984	46.984	8.927	46.984	46.984
2	5.665	29.817	76.801	5.665	29.817	76.801
3	1.937	10.197	86.998	1.937	10.197	86.998
4	1.051	5.533	92.531	1.051	5.533	92.531
5	.626	3.295	95.826	.626	3.295	95.826
6	.370	1.946	97.773	.370	1.946	97.773
7	.209	1.102	98.875	.209	1.102	98.875
8	.145	.766	99.640	.145	.766	99.640
9	.047	.249	99.889	.047	.249	99.889
10	.021	.111	100.000	.021	.111	100.000
11	9.292E-16	4.890E-15	100.000			
12	2.984E-16	1.571E-15	100.000			
13	1.151E-16	6.058E-16	100.000			
14	3.799E-17	1.999E-16	100.000			
15	-5,777E-17	-3.040E-16	100.000			
16	-1,278E-16	-6.727E-16	100.000			
17	-2,237E-16	-1.177E-15	100.000			
18	-3,615E-16	-1.903E-15	100.000			
19	-5,593E-16	-2.944E-15	100.000			

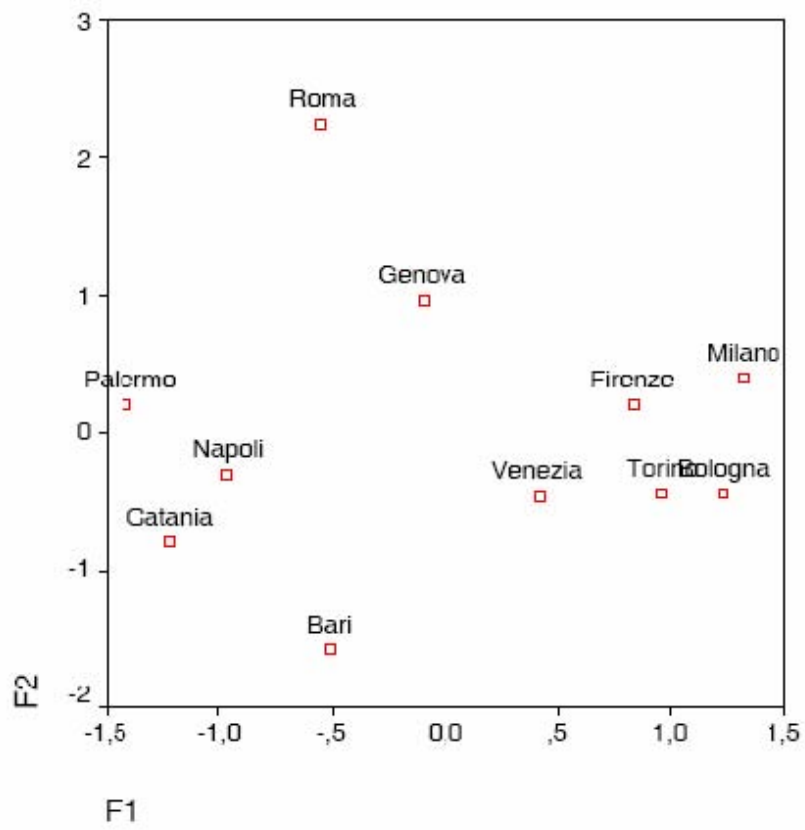
Metodo di estrazione: Analisi componenti principali.

Matrice di componenti(a)

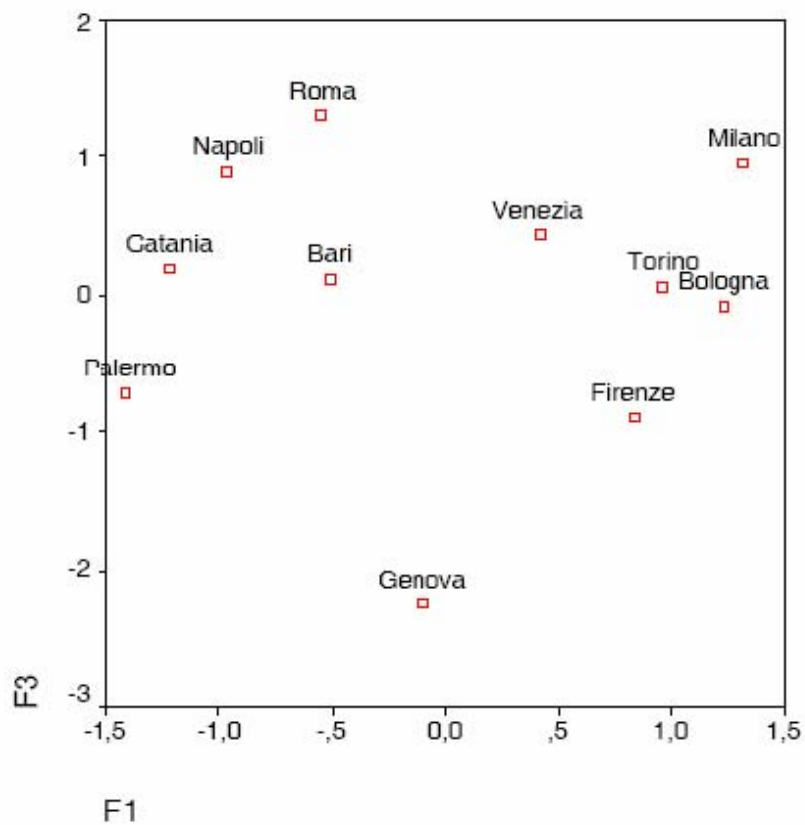
	Componente								
	1	2	3	4	5	6	7	8	9
P1	-.306	.661	-.465	.411	-.088	-.207	-.150	.067	.031
P3	.081	.155	-.901	.174	.312	.124	-.042	-.087	.052
P4	.785	.531	.037	.164	.110	.153	-.028	.142	-.125
P5	.344	-.195	.579	.453	.505	-.192	.073	-.079	.004
L1	.887	.196	-.086	.270	-.281	.027	.049	-.107	-.006
L3	-.514	-.735	.086	.365	-.101	.190	-.002	.059	.071
L4	.815	-.517	.093	-.144	-.069	-.105	-.147	-.038	.015
Lb	-.657	.721	-.116	.037	.097	.049	.145	.021	-.036
L6	-.848	-.417	.038	-.031	.237	.202	-.028	.051	.025
I1	.186	.909	.219	.238	-.003	.035	-.165	.031	-.014
I2	-.434	.522	.629	.192	-.141	.240	-.118	-.114	.040
I3	.781	-.514	-.169	.090	.011	.286	.054	-.034	-.046
R1	.911	.383	.067	.061	-.017	.055	.044	.079	.056
R2	-.535	-.703	.041	.374	-.169	-.086	.099	.179	-.005
R3	.944	-.296	-.020	-.038	.077	.042	-.084	.061	.029
R4	-.880	.452	.012	-.036	-.047	-.027	.068	-.101	-.029
R5	.105	.881	.214	-.344	.129	.050	.054	.137	.091
E1	.959	-.243	.082	-.071	.049	-.061	-.021	.017	.021
C1	.823	.463	-.050	.135	-.137	.003	.249	-.033	.058

Metodo estrazione: analisi componenti principali.
a. 10 componenti estratti

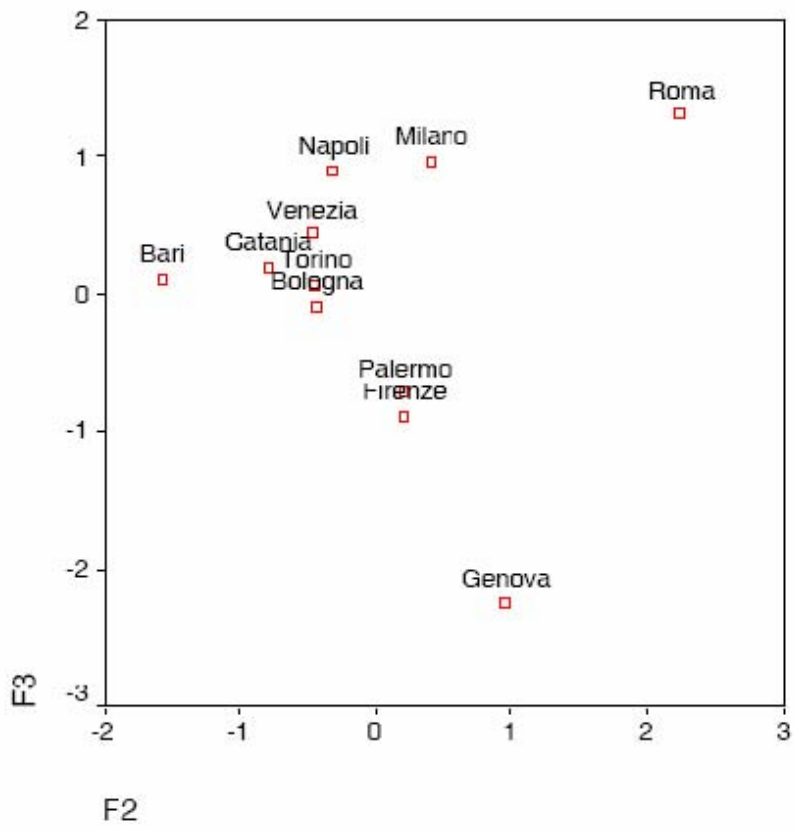
Grafico



Grafico



Grafico



Cluster

Riepilogo dei casi(a,b)

Casi					
Validi		Mancanti		Totale	
N	Percentuale	N	Percentuale	N	Percentuale
11	100,0	0	,0	11	100,0

a Distanza euclidea quadratica utilizzata

b Legame di Ward

Legame di Ward

Programma di agglomerazione

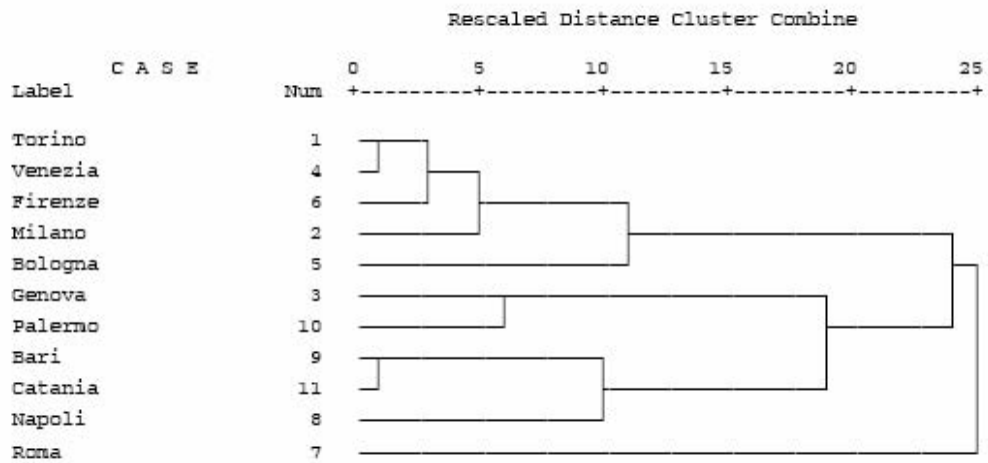
Stadio	Cluster accorpati		Coefficienti	Stadio di formazione del cluster		Stadio successivo
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	1	4	,616	0	0	3
2	9	11	1,393	0	0	6
3	1	6	2,774	1	0	4
4	1	2	4,907	3	0	7
5	3	10	7,268	0	0	8
6	8	9	11,204	0	2	8
7	1	5	15,297	4	0	9
8	3	8	22,229	5	6	9
9	1	3	30,832	7	8	10
10	1	7	40,000	9	0	0

Dendrogramma

-

***** HIERARCHICAL CLUSTER ANALYSIS *****

Dendrogram using Ward Method



Tabelle

		Ward Method		
		1	2	3
F1	Media	,95010	-,84028	-,54909
	Deviazione standard	,35770	,53453	.
	Validi	N=5	N=5	N=1
F2	Media	-,14790	-,30117	2,24535
	Deviazione standard	,41907	,96086	.
	Validi	N=5	N=5	N=1
F3	Media	,09327	-,35274	1,29736
	Deviazione standard	,68550	1,20121	.
	Validi	N=5	N=5	N=1
F4	Media	-,05589	-,17284	1,14366
	Deviazione standard	1,13238	,92167	.
	Validi	N=5	N=5	N=1

APPENDICE OUTPUT ANALISI 2

Analisi fattoriale

Matrice di correlazione(a)

a Questa matrice non è positiva definita.

Comunalità

	Iniziale	Estrazione
P1	1.000	1.000
P3	1.000	1.000
P4	1.000	1.000
P5	1.000	1.000
L1	1.000	1.000
L3	1.000	1.000
L4	1.000	1.000
L5	1.000	1.000
L6	1.000	1.000
I1	1.000	1.000
I2	1.000	1.000
I3	1.000	1.000
R1	1.000	1.000
R2	1.000	1.000
R3	1.000	1.000
R4	1.000	1.000
R5	1.000	1.000
E1	1.000	1.000
C1	1.000	1.000

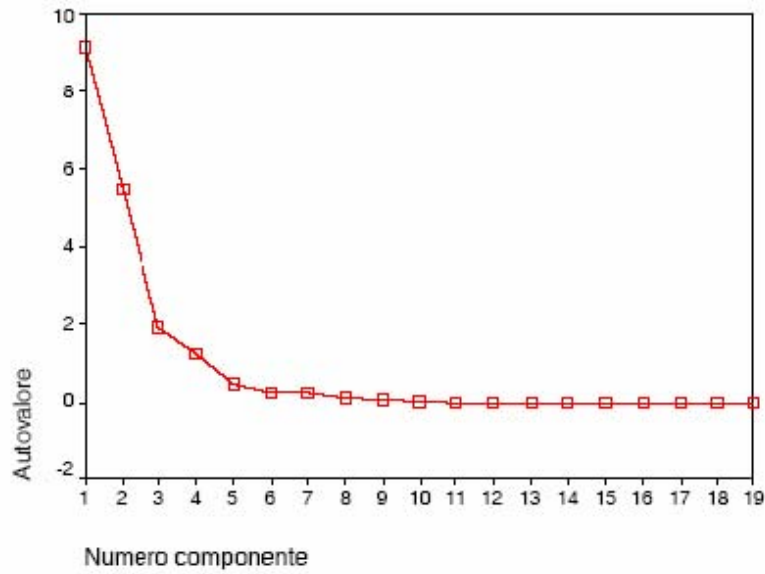
Metodo di estrazione: Analisi componenti principali.

Varianza totale spiegata

Componente	Autovalori iniziali			Pesi dei fattori non ruotati		
	Totale	% di varianza	% cumulata	Totale	% di varianza	% cumulata
1	9.182	48.324	48.324	9.182	48.324	48.324
2	5.453	28.700	77.024	5.453	28.700	77.024
3	1.925	10.131	87.155	1.925	10.131	87.155
4	1.261	6.635	93.790	1.261	6.635	93.790
5	.486	2.556	96.346	.486	2.556	96.346
6	.258	1.359	97.705	.258	1.359	97.705
7	.229	1.206	98.911	.229	1.206	98.911
8	.097	.511	99.423	.097	.511	99.423
9	.075	.395	99.817	.075	.395	99.817
10	.035	.183	100.000	.035	.183	100.000
11	7.051E-16	3.711E-15	100.000			
12	3.282E-16	1.727E-15	100.000			
13	1.881E-16	9.898E-16	100.000			
14	1.145E-16	6.024E-16	100.000			
15	-8,088E-18	-4.257E-17	100.000			
16	-8,689E-17	-4.573E-16	100.000			
17	-1,699E-16	-8.943E-16	100.000			
18	-2,342E-16	-1.233E-15	100.000			
19	-6,141E-16	-3.232E-15	100.000			

Metodo di estrazione: Analisi componenti principali.

Grafico decrescente degli autovalori



Matrice di componenti(a)

	Componente								
	1	2	3	4	5	6	7	8	9
P1	.417	.754	-.030	-.307	.361	-.062	-.054	.074	.117
P3	.708	.484	-.475	-.078	.144	.053	-.058	-.002	.020
P4	.094	.008	.302	.013	.040	.037	.176	.030	.001
P5	.191	-.326	.313	.794	.331	-.092	-.090	-.008	-.050
L1	.933	.253	-.181	.035	.046	.039	.165	.028	-.025
L3	-.871	-.124	-.063	.265	.168	.320	.061	.067	.101
L4	.740	-.448	-.370	.212	-.151	-.079	.163	.103	.030
L5	.525	.807	-.227	.060	.052	.012	.036	.007	-.106
L6	-.619	.508	-.428	.362	-.075	.107	-.161	-.036	.013
I1	.763	.609	.140	.109	.019	-.067	.031	.056	.024
I2	.188	.731	.455	.379	-.139	-.045	.211	-.068	.097
I3	.874	-.197	-.368	.079	-.061	.168	.037	-.019	-.011
R1	.856	-.355	.355	-.068	.035	.064	-.042	.009	.019
R2	-.896	-.260	.196	-.093	.113	.005	.106	.192	-.064
R3	.407	-.892	.068	-.055	-.062	-.002	-.091	.018	.107
R4	-.744	.485	.408	-.188	-.016	.021	.049	-.044	.025
R5	.450	.654	.475	.067	-.285	.152	-.125	.123	-.028
E1	.562	-.821	.014	.067	-.022	-.041	.014	.000	.029
C1	.780	-.269	.402	-.226	.198	.202	.103	-.102	-.063

Metodo estrazione: analisi componenti principali.
a 10 componenti estratti

Cluster

Riepilogo dei casi(a)

Casi					
Validi		Mancanti		Totale	
N	Percentuale	N	Percentuale	N	Percentuale
11	100.0	0	.0	11	100.0

a Legame di Ward

Matrice delle distanze

Caso	Distanza euclidea quadratica										
	1:Torino	2:Milano	3:Genova	4:Venezia	5:Bologna	6:Firenze	7:Roma	8:Napoli	9:Bari	10:Palermo	11:Catania
1:Torino	.000	2.032	7.570	1.029	1.793	2.545	15.261	5.863	10.966	5.793	6.234
2:Milano	2.032	.000	10.439	2.137	1.606	2.559	9.166	9.233	13.370	9.047	8.786
3:Genova	7.570	10.439	.000	8.376	14.868	6.636	17.169	14.373	16.427	5.549	13.585
4:Venezia	1.029	2.137	8.376	.000	1.353	1.075	10.712	5.936	6.048	3.917	3.291
5:Bologna	1.793	1.606	14.868	1.353	.000	3.296	13.153	7.491	9.922	9.164	6.059
6:Firenze	2.545	2.559	6.636	1.075	3.296	.000	10.168	11.299	5.374	5.489	6.563
7:Roma	15.261	9.166	17.169	10.712	13.153	10.168	.000	15.575	17.414	10.904	11.037
8:Napoli	5.863	9.233	14.373	5.936	7.491	11.299	15.575	.000	17.389	4.620	3.229
9:Bari	10.966	13.370	16.427	6.048	9.922	5.374	17.414	17.389	.000	8.315	6.519
10:Palermo	5.793	9.047	5.549	3.917	9.164	5.489	10.904	4.620	8.315	.000	2.274
11:Catania	6.234	8.786	13.585	3.291	6.059	6.563	11.037	3.229	6.519	2.274	.000

Questa è una matrice di dissimilarità

Legame di Ward

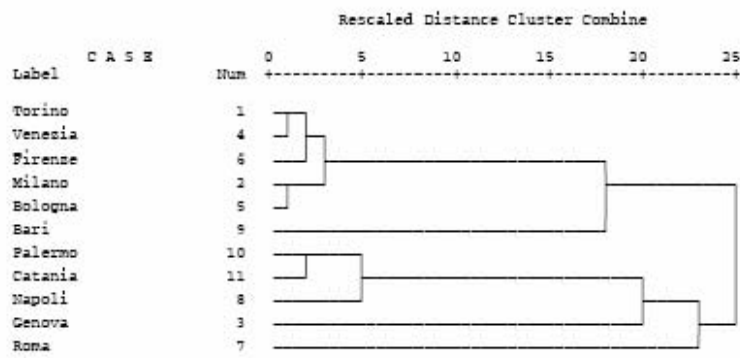
Programma di agglomerazione

Stadio	Cluster accorpati		Coefficienti	Stadio di formazione del cluster		Stadio successivo
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	1	4	.514	0	0	3
2	2	5	1.318	0	0	5
3	1	6	2.353	1	0	5
4	10	11	3.490	0	0	6
5	1	2	5.022	3	2	7
6	8	10	7.259	0	4	8
7	1	9	14.225	5	0	10
8	3	8	21.758	0	6	9
9	3	7	30.514	8	0	10
10	1	3	40.000	7	9	0

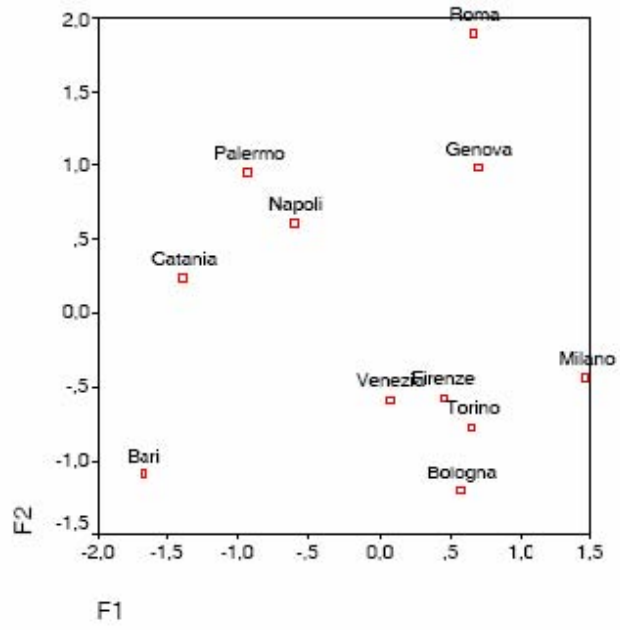
Dendrogramma

***** HIERARCHICAL CLUSTER ANALYSIS *****

Dendrogram using Ward Method

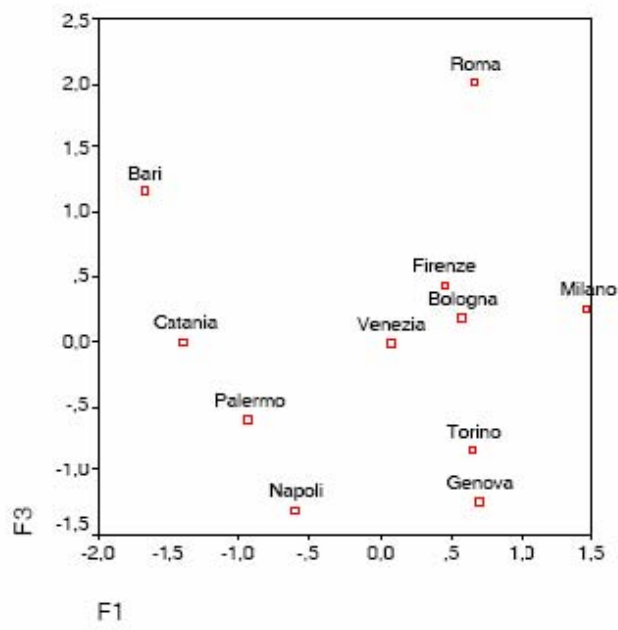


Grafico

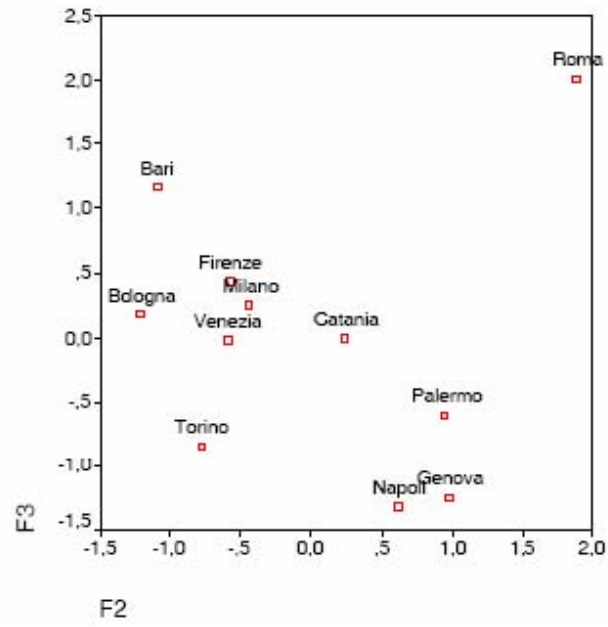


Grafico

Tabelle



Grafico



		Ward Method		
		1	2	3
F1	Media	,26184	-,55676	,65602
	Deviazione standard Validi	1,04921	,89706	.
		N=6	N=4	N=1
F2	Media	-,77897	,69545	1,89200
	Deviazione standard Validi	,31090	,34766	.
		N=6	N=4	N=1
F3	Media	,19515	-,79413	2,00564
	Deviazione standard Validi	,64629	,61587	.
		N=6	N=4	N=1
F4	Media	-,07219	-,00350	,44715
	Deviazione standard Validi	,74509	1,52675	.
		N=6	N=4	N=1

BIBLIOGRAPHY

Alaimo A., *Un'altra industria? Distretti e sistemi locali nell'Italia contemporanea*, Angeli, Milano, 2002. * **Amendola M., Gaffard G.**, *The Innovative Choice. An Economic Analysis of the Dynamic of Technology*, Oxford, 1988. **Ancora G.**, *Programmazione negoziata e sviluppo locale*, Bari: Cacucci, 2001. **Antoniello D., Vasapollo L.**, *Eppure il vento soffia ancora*, Jaca Book, Milano, 2006 **Arghiri E.**, *Lo scambio ineguale. Gli antagonisti nei rapporti economici internazionali*, Torino, 1972. **Arriola, J., Vasapollo, L.**, *L'Uomo Precario*, Jaca Book, Milano, 2005 **Bagnasco A.**, *Tre Italie. La problematica territoriale dello sviluppo italiano*, Il Mulino, Bologna, 1977. **Bagnasco A., Piselli F., Pizzorno A., Trigilia C.**, *Il capitale sociale. Istruzioni per l'uso*, Il Mulino, Bologna, 2002.

Balconi M., *La siderurgia italiana (1945-1990). Tra controllo pubblico e incentivi di mercato*, Bologna, 1991. **Baldassarri M.**, Introduzione ad AA.VV., *La politica industriale in Italia dal 1945 ad oggi: fasi, intrecci, prospettive '90*, in «Rivista di politica economica», maggio 1990. **Baracchi M., Bigarelli D., Colombi M., Dei A.**, *Modelli territoriali e modelli settoriali, un'analisi della struttura produttiva del tessile-abbigliamento in toscana*, prefazione di S. Brusco Rosenberg & Sellier, Torino, 2001. **Barbano F.**, *Mutamenti nella struttura di classe e crisi (1950-1970)*, in Graziano L., Tarrow S. (a cura di), *La crisi italiana*, Torino, 1979. **Becattini G.**, (a cura di), *Modelli locali di sviluppo*, Il Mulino, Bologna, 1979. **Becattini G.**, *Distretti industriali e made in Italy. Le basi socioculturali del nostro sviluppo economico*, Bollati Boringhieri, Torino, 1998. **Becattini G.**, *Il bruco e la farfalla. Prato: una storia esemplare dell'Italia dei distretti*, Le Monnier, 2000. **Becattini G.**, *Il distretto industriale, un nuovo modo di interpretare il cambiamento economico*, Rosenberg & Sellier, Torino, 2000. **Becattini G.**, *Dal distretto industriale allo sviluppo locale*, Bollati Boringhieri editore, Torino, 2000. **Becattini G., Bellandi M., Dei Ottati G., Sforzi M.** (a cura di), *Il caleidoscopio dello sviluppo locale. Trasformazioni economiche nell'Italia contemporanea*, Rosenberg & Sellier, Torino, 2001.

Becattini G. e Sforzi F. (a cura di), *Lezioni sullo sviluppo locale*, Milano, Rosenberg & Sellier, 2002. **Becattini G.**, (a cura di), *I nipoti di Cattaneo*, Donzelli, Roma, 2003. *
Bertola P., Sangiorgi D., Simonelli G. (a cura di), *Milano distretto del design - Un sistema di luoghi, attori e relazioni al servizio dell'innovazione* Ed. Il Sole 24 Ore, 2002.
Bodo G., Viesti G., *La grande svolta. Il Mezzogiorno nell'Italia degli anni novanta*, Donzelli, Roma, 1998. **Brioschi F., Bozzacchi L., Colombo M.G.**, *Gruppi di imprese e mercato finanziario. La struttura di potere nell'industria italiana*, Roma 1990. **Burroni L.**, *Allontanarsi crescendo. Politica e sviluppo locale in Veneto e Toscana*,

Torino, Rosenberg & Sellier, 2001. **Carli G.** (con Peluffo P.), *Cinquant'anni di vita italiana*, Laterza, Roma-Bari, 1993. **Casini L., Bernetti J., Meneghini S.**, *L'agricoltura e lo sviluppo rurale nei nuovi strumenti per il governo del territorio*, Milano FrancoAngeli, 2002.
Castronovo V., *Storia economica d'Italia*, Einaudi, Torino, 1995. **Castronovo V.**, *Le rivoluzioni del capitalismo*, Laterza, Roma-Bari, 1995. **Cersosimo D., Donzelli C.**, *Mezzo Giorno. Realtà, rappresentazioni e tendenze del cambiamento meridionale*, Donzelli editore, 2000. **Cersosimo D.**, *Istituzioni, capitale sociale e sviluppo locale*, Soveria Mannelli, Rubbettino, 2001. **Cingolati S.**, *Le grandi famiglie del capitalismo italiano*, Laterza, Roma-Bari, 1990. **Cipolla C.M.**, *Storia economica dell'Europa preindustriale*, Bologna, 1974.
Colajanni N., *Il capitalismo senza capitale, la storia di Mediobanca*, Sperling&Kupfer, Milano, 1991. **Contò F.** (a cura di), *La dimensione rurale dello sviluppo : la multiformità della provincia di Foggia ed il caso della Comunità Montana dei Monti Dauni Meridionali*, Milano, Angeli, 2002. **Contò F.** (a cura di), *Trasformazioni economiche e competitività locale: l'esperienza del GAL Piana del Tavoliere*, Milano, Angeli, 2002. **Coppola P.**, *Geografia politica delle regioni italiane*, Einaudi Torino, 1997. **D'Antonio M.**, *L'industrializzazione del Mezzogiorno tra realtà e utopia*, in «Economia italiana», n°2, 1996.
Dal Bosco E., *L'economia mondiale in trasformazione*, Bologna, 1993. **Datar**, *Réseaux d'entreprises et territoires. Regards sur les systèmes productifs locaux*, La documentation Française, 2001. **De Toni A., Grandinetti R.** (a cura di), *Conoscenze, relazioni e tecnologie di rete nelle filiere distrettuali -Il caso del distretto della sedia*, Franco Angeli, Milano, 2001.
Deane P., *La prima rivoluzione industriale*, Bologna, 1975. **Deidda D.** (a cura di), *Il Mezzogiorno che funziona. Esperienze, progetti e musiche dal Castello di Trani. Ottobre 2000*, Roma : Formez : Donzelli, 2001. **Della Rocca**, *Sindacato e organizzazione del lavoro. Analisi comparata del sistema di relazioni industriali in cinque paesi*, Milano, 1981.
Dematteis G., Bonaverò P., *Il sistema urbano italiano nello spazio unificato europeo*, il Mulino, Bologna, 1997. **Federico, G.**, *I fattori della distribuzione*, in Romano R. (a cura di), *Storia dell'economia italiana. III. L'età contemporanea: un paese nuovo*, Torino, 1991.

Feuchtwanger E.J., *Democrazia e impero. L'Inghilterra fra il 1865 e il 1914*, Bologna, 1987. **Fuà G., Zacchia C.**, *Industrializzazione senza fratture*, Bologna, 1983. **Galli G.**, *Il padrone dei padroni*, Garzanti, 1995. **Gallino L.**, *Informatica e qualità del lavoro*, Torino, 1985. **Gallino L., Accornero A., Berta G., Manghi B.**, *Tecnologia, occupazione e disoccupazione*, «Quaderni di sociologia», n.7, 1994-95. **Golinelli G.M.**, *L'approccio sistemico al governo dell'impresa*, Cedam, Padova, 2000. **Grasselli P., Musetti F.** (a cura di), *Esperienze di sviluppo locale e dinamiche dell'industria manifatturiera umbra*, Franco Angeli, Milano, 2002. **Grassi M.**, *Lezioni su sviluppo locale e piccola impresa*, Firenze, IRPET, stampa 2001. **Grasso A., Urbani L.**, *L'approccio integrato allo sviluppo locale. Il sistema locale val d'Anapo*, Milano, Angeli, 2001. **Gualerni G.**, *Storia dell'Italia industriale. Dall'Unità alla Seconda Repubblica*, Etas Libri, Milano, 1994. **Hicks J.**, *La crisi dell'economia keynesiana*, Torino, 1975. **Hirschman A.O.**, *Tre continenti*, Torino, 1990. **Hobsbawm E.J.**, *Lavoro, cultura e mentalità nella società industriale*, Roma-Bari, 1986. **Hobsbawm E.J.**, *Il secolo breve. 1914-1991: l'era dei grandi cataclismi*, Milano, 1995. **Ispi**, *Quali capitalismi*, Milano, 1993. **ISTAT-IRPET**, *I mercati locali del lavoro in Italia*, Roma (ora Angeli, Milano 1989), 1986.

Kerr C., Dunlop J.T., Harrison F.H., Myers Ch.A., *L'industrialismo e l'uomo dell'industria. I problemi del lavoro e della direzione aziendale nello sviluppo economico*, Milano, 1972. **Kindron M.**, *Il capitalismo occidentale nel dopoguerra*, Bari, 1969. **Krugman P.**, *L'incanto del benessere. Politica ed economia degli ultimi vent'anni*, Milano, 1995. **Lanzara R., Lazzeroni M.** (a cura di), *Metodologie per l'innovazione territoriale : un progetto sperimentale nelle aree di Pisa, Benevento, Brindisi e Lecce*, Milano, Angeli, 2002. **Levi A.** (a cura di), *Agnelli, intervista sul capitalismo moderno*, Laterza, Roma-Bari, 1983. **Maffei S., Simonelli G.**, *I territori del design -Made in Italy e sistemi produttivi locali* Ed. Il Sole 24 Ore, 2002. **Martufi R., Vasapollo L.**, *Le Pensioni a Fondo*, Mediaprint, Roma, 2000. **Martufi R., Vasapollo L.**, *La comunicazione deviante*, Mediaprint, Roma, 2000. **Martufi R., Vasapollo L.**, *Eurobang. La sfida del polo europeo nella competizione globale. Inchiesta su lavoro e capitale*, Mediaprint, Roma, 2000. **Martufi R., Vasapollo L.**, *Vizi privati...senza pubbliche virtù. Lo stato delle privatizzazioni e il Reddito Sociale Minimo*; Mediaprint, Roma, 2003

Messina P., *Regolazione politica dello sviluppo locale. Veneto ed Emilia Romagna a confronto*, Torino : UTET Libreria, 2001. **Micelli S. e Di Maria E.** (a cura di), *Distretti industriali e tecnologie di rete: progettare la convergenza*, Franco Angeli, Milano, 2000. **Minoli G.**, *I re di denari*, Mondadori, Milano, 1987. **O'Connor J.**, *La crisi fiscale dello Stato*, Torino, 1977.

Perulli P. (a cura di), *Neoregionalismo. L'economia-arcipelago*, Bollati Boringheri, Torino, 1998. **Provasi G.** (a cura di), *Le istituzioni dello sviluppo. I distretti industriali tra storia, sociologia ed economia*, Donzelli, Roma, 2002. **Quattrociocchi B., Esposito G.F.**, *I servizi per le imprese*, Buffetti Editore, Roma, 2001. **Regini M., Sabel C.**, *Strategie di riaggiustamento industriale*, il Mulino, Bologna, 1989. **Reinhard W.**, *Storia dell'espansione europea*, Napoli, 1987. **Rossi E.**, *Borse e borsaioli*, Laterza, Roma-Bari, 1961. **Ruffolo G.**, *Riforme e controriforme*, Bari, 1975. **Ruisi M.**, *Lo sviluppo dei 'sistemi di produzione locale' in ottica economico-aziendale. Ruolo, modelli di governo e cultura imprenditoriale per la piccola impresa*, Milano, Giuffrè, 2001. **Sapelli G.**, *Sul capitalismo italiano. Trasformazione o declino*, Milano, Feltrinelli, 1993. **Scalfari E., Turani G.**, *Razza padrona, storia della borghesia di Stato*, Feltrinelli, Milano, 1974.

Scancelli L., *Finanziamenti comunitari e politiche dello sviluppo. I fondi strutturali dalla programmazione comunitaria all'attuazione regionale e locale*, Bari, Laterza Giuseppe Edizioni, 2001. **Schumpeter J.A.**, *Il processo capitalistico. Cicli economici*, Torino, 1977. **Scopacasa T.**, *Lo sviluppo locale: uno strumento di intervento dal basso: il Gal Serre Vibonesi*, Vibo Valentia, Qualecultura, [Milano] Jaca book, [2001]. **Signorini L.F.** (a cura di) *Lo sviluppo locale. Un'indagine della Banca d'Italia sui distretti industriali*, Donzelli, Roma, 2000. **Taccone A.**, *L'incentivazione per lo sviluppo locale delle PMI*, Roma, Luiss Edizioni, 2001. **Taiichi O.**, *Lo spirito Toyota*, Torino, 1993. **Tattara G.** (a cura di), *Il piccolo che nasce dal grande. Le molteplici facce dei distretti industriali veneti*, FrancoAngeli, Milano, 2001. **Thurow L.**, *La società a somma zero*, Bologna, 1981. **Tinacci Mossello M.**, *La sostenibilità dello sviluppo locale. Politiche e strategie*, Quarto Inferiore, Patron, 2001. **Triglia C.**, *Grandi partiti, piccole imprese*, Bologna, 1986. **Turone S.**, *Storia del sindacato in Italia 1943/1980*, Laterza, Roma-Bari, 1981. **Vasapollo L.**, *I Mutamenti nella Struttura Geografica dello Sviluppo Economico in Italia (1981-1991)*”, Quaderno no.1 del Dip.Contabilità Nazionale, Università La Sapienza, Rome, 1995 **Vasapollo L.**, *Sulla Localizzazione dell'Imprenditorialità in Italia*”, Temi di Attualità, no.2, Dip.to di Contabilità Nazionale, Università La Sapienza, Rome, 1995

Vasapollo L.(a cura di), *Il piano inclinato del capitale. Crisi, competizione globale e guerra*, edit. Jaca Book, Ottobre 2003 **Vasapollo L., Petras J., Casadio M.**, *Clash! Scontro tra potenze. La realtà della globalizzazione*, Jaca Book, Milano, 2004 **Vasapollo L.**, *Novos Desequilibrios Capitalistas. Paradoxos do Capital e Competição Global*, Projecto Editorial Praxis, Brasile, novembre 2004 **Vasapollo L.**, *Lavoro contro Capitale. Precarietà, sfruttamento, delocalizzazione*, (a cura di), Jaca Book ed., Milano, gennaio 2005a

Vasapollo L., *Lotte e regimi in America Latina* di R.Antunes, J.Petras, H.Veltmeyer , cura e postfazione di L.Vasapollo, M.Casadio, Jaca Book Milano,2005b **Vasapollo, L., Martufi, R.**, *Le Aree Metropolitane nel Contraddittorio Sviluppo Economico-Produttivo Italiano. Il lavoro metropolitano*, Proteo, Vol.3, 33-46, 2005c **Vasapollo, L., Martufi, R.**, *Le Aree Metropolitane nel Contraddittorio Sviluppo Economico-Produttivo Italiano.Fabbrica metropolitana e impatto socio-economico.* , Proteo, Vol.1, 26-37, 2006a

Vasapollo, L., *Economic Development, Territorial Differentiation and the Role of the Metropolitan Areas in Italy*, Quaderno no.4, Dip.to di Contabilità Nazionale ed Analisi dei Processi Sociali, Univ. La Sapienza, Rome, 2006b

Vasapollo, L., *Economic Development, Territorial Differentiation and the Role of the Metropolitan Areas in Italy*, Quaderno no.4, Dip.to di Contabilità Nazionale ed Analisi dei Processi Sociali, Univ. La Sapienza, Rome, 2006

Viesti G., *Perché nascono i distretti industriali* Laterza, Bari, 2000. **Viesti G.**, *La proiezione internazionale dei distretti meridionali del made in Italy*, L'Italia nell'economia internazionale. Rapporto ICE 1999-2000 Istat, Ice, Roma 2000. **Viesti G.**(a cura di), *Mezzogiorno dei distretti*, Donzelli editore, Roma, 2000. **Visconti M., Grbac D.**, *Finanza, imprese, sviluppo locale: casi di paesi Europei in transizione*, Milano, Giuffrè, 2001. **Wallerstein I.**, *Il capitalismo storico*, Torino, 1985. **Zamagni V.**, *Dalla periferia al centro. La seconda rinascita economica dell'Italia (1861-1990)*, il Mulino, Bologna, 1990. **Young A.**, *Increasing Returns and Economic Progress*, in «Economic Journal», 1928.

SITI INTERNET SULLO SVILUPPO ITALIANO

www.clubdistretti.it
www.censis.it
www.ires.it
www.confindustria.it
www.tagliacarne.it
www.istat.it
www.cnel.it
www.unioncamere.it
www.ice.it www.reset.it
www.capitalia.it

FREE TRADE AND NATION STATES

The imperfect global economy

JOAQUIM RAMOS SILVA

Instituto Superior de Economia e Gestão

Technical University of Lisbon

jrsilva@iseg.utl.pt

ABSTRACT: This paper discusses several topics relating free trade to the concept of the nation state. Classical political economy, and later economics, developed without acknowledging any theoretical role for the nation state, which is basically considered as a distortion. Despite expressions of dissent from a few major economists, like Schumpeter, and the special case of Keynesianism, the issue has never been completely resolved. However, in many circumstances, and contrary to the standard approach, the nation state plays a key active role in the evolution of international flows, and should be theoretically incorporated. The present article attempts to reintroduce this concept into the analysis, taking into account not only its more obvious features i.e., countries and governments, but also some other underlying factors such as language, history and currencies, which are often neglected, even in the literature on complements and “exceptions” to free trade. In so doing, various imperfections become evident and consequently, the outcomes of free trade may be different to what is assumed in the standard analysis, while a more realistic picture of the world economy emerges. Although some research work has been carried out on this subject, particularly since the 1980s, much remains to be done in order to include these elements fully into the theoretical analysis.

JEL: F02, F12, F20

KEYWORDS: Free trade, nation states, economics of language, globalization

1. Introduction

Free trade remains a highly challenging issue, which is simultaneously attractive and unsatisfactory as a tool to help us understand the real world. Theoretically, from the unilateralist perspective, i.e., regardless of the behavior of its partners, a country that follows free trade policies should spontaneously benefit through better and cheaper provision of goods and services. Accordingly, this occurs because of the specialization of countries, concomitant enhanced efficiency and increased welfare. However, if one considers more carefully the notion that free trade means no obstacles to international flows and that all countries are placed on a level playing field leading to shared gains, its effectiveness is much less evident

than it first appears. It is sufficient to observe that national economies of comparable size, subject to the same external rules and with similar degrees of openness may produce quite different results (for example, within the European Union). Thus, even if we admit that other factors also account for such differences, it is difficult to refute that free trade per se may not automatically entail the best outcome for a particular country that opts for the international specialization route. The reason for this lies in the fact that, even under the conditions in which barriers usually identified in most textbooks of international economics do not exist or are negligible, many imperfections still portray external flows (associated with the exchanged goods, the length of time of the process and other factors) and free trade as a mirage. Moreover, some of the barriers are naturally determined by national, political and cultural aspects, which are deeply imbedded in the course of international trade. Therefore, all these imperfections need to be taken into account if we wish to understand how the world economy actually works.

After these brief introductory remarks we shall focus on the imperfections referred to above. Free trade will be examined considering the role of nation states at the core of the world economy, as well as how trade is influenced by language and history, in addition to the persistence of a significant national power over currencies. In the final section, we make our concluding remarks.

2. The nation state in the economics of free trade

The nation state, which is by nature a structural basis for trade, foreign investment and other flows, also plays a key role in the internationalization process and its dynamics. Yet, for reasons explained below, linked to the very roots of political economy, this dimension has always been neglected. For example, Hirschman (1945) introduced national sovereignty into the “toolkit” of economics in his analysis of the classical notion of the gains of trade, showing how it implies imperfections and indeterminacy, and ultimately produces asymmetrical results, far from that propagated in mainstream textbooks. However, his contribution largely remained underestimated (Silva, 1999b). Such a missing link has affected the comprehension of the way that free trade operates and has been opposed by some major authors (Williams, 1929, Schumpeter, 1954). Nevertheless, the dominant developments in economics have always coexisted with this flaw and without a serious attempt to incorporate the nation state

into the theory. We argue that within the context of globalization, where free trade issues, particularly those concerning the nation state, become theoretical elements of the first order, we need a sounder and deeper clarification of the concept as part of a more realistic approach to international economic relations. In fact, the theory of free trade was put forward a long time ago and its oversimplification, as well as its superficial and contradictory perception of the subject, is no longer acceptable. Our basic argument in this paper will be that free trade in the presence of nation states, if we take them simultaneously, shifts the theoretical focus with regard to the way that international competition effectively functions.

Until a few decades ago, the simplest solution for supporting the free trade doctrine was to exclude the nation state from the theoretical corpus of international economics, or to describe its interferences in external transactions as mere distortions of an ideal functioning. Yet, in the post-war period, as shown by the gradual decline of tariffs and nontariff barriers as well as the increasing international mobility of factors, particularly that of capital, the same problem holds: a level playing field between countries and symmetrical gains remain elusive in a free trade context. Departing from these premises, we need to analyze the role played by the nation state in the present international environment from various angles. Clearly, there are other related subjects not developed here that also deserve clarification from our point of view. For example, the question whether some special cases of protectionism – measures inducing the specialization in goods produced in industries with increasing returns to scale, a correct management of the infantindustry argument towards maturity and competitiveness, the subsidized “import” (and similar policies) of highlyskilled professionals in view of the increase of national labor productivity, and the use of the optimal tariff or its substitutes for large countries in order to improve their terms of trade¹, may or may not lead to benefits uniquely for the imposing partner or, at least to uneven gains. These “exceptions” that challenge the dominant view on free trade and specialization, postulated in most textbooks, are taken into consideration in many of them, although only partially and not in all their consequences. Hence, our approach leads us to focus on the debate over some of the less studied dimensions of the nation state’s role within a world economy without significant traditional barriers (tariffs, nontariffs, controls of capital, and so on).

In spite of the fact that international economics has developed under very restrictive assumptions, free trade must be associated with many other relevant aspects that underlie the formal definitions and principles of the pure discipline. This is a prerequisite for an understanding of all that is at stake in the movement of international flows. One of the most outstanding examples of oversimplification in the field of international trade is the Ricardian theory of comparative costs based on the 2 goods–2 countries approach, measured by the relative number of hours per man required to produce the goods in each country. Indeed, in order to explain the comparative advantage of a country in external trade, we need to take much more into account than the simple cost of the traded good (in autarky and openness) and to know how such a good is produced and exchanged at a particular moment. Among other contributions, to introduce the nation state constitutes a step forward in the understanding of all the process. For example, the catching up achieved in the postwar era by an increasing number of trading countries, particularly in Asia, demonstrates that adequate policies and strategies implemented on a national scale, and properly led by governments can be decisive in this outcome. As Krugman put it: “Nations matter because they have governments whose policies affect the movements of goods and factors” (1991: 712). While the author thinks mainly in terms of restrictive actions, governments may operate in both ways (protectionism and free trade), and make an appropriate mix.

Although some features deriving from the concept of the nation state were accepted from the outset by the classics for analytical purposes (for example, the assumption of national, though not international, mobility of factors²), others were not considered, such as the existence of common national interests and wants easily transferred to international commercial and financial transactions. The result was that since Adam Smith, the economics of free trade has been constructed on the basis of a narrow perspective, which has discarded a global and more complete approach. Schumpeter (1954) was very clear on this point:

“If Smith and his followers had refined and developed the ‘mercantilist’ propositions instead of throwing them away, a much truer and much richer

¹ For a view of the various arguments in this respect, according to the guidelines of the mainstream approach (i.e., basically disapproving or minimizing their impact), see Irwin, 1996, 2002. ² In this example, according to the classical way of thinking, the movement of factors particularly that of capital, contradictorily denies the virtues of free circulation attributed to trade in goods. See the wellknown statements on this subject in Chapter VII of Ricardo’s major work (1817).

theory of international economic relations could have been developed by 1848 – one that could have not been compromised by one set of people and treated with contempt by another” (p. 376).

One of the strongest criticisms that Schumpeter addressed to Smith was thus the fact that in his zeal in refuting mercantilist theories and eliminating the nation state from the picture, he opened the way to incomplete views of free trade’s advantages, satisfying one group of people in terms that are unacceptable to another group, preventing the development of a richer, more comprehensive and refined theory of international economic relations. It is true that Smith acknowledged the role of the state in many areas, and even promoted it in specific issues of international trade (e.g., his support of the Navigation Act), but theoretically, given the “invisible hand”, it remained dependent on other considerations, for example “defense instead of opulence”, rather than having a theoretical value of its own. This is also clear as far as the specialization process is concerned, in which Smith launched his stepping stone of the division of labor in terms of an individual firm within national frontiers, rather than among countries. Nonetheless, the internationalization of production is presently common place for the rapidly increasing number of firms participating in world trade and investment.

Despite the classical viewpoint (neoclassical authors like Heckscher and Ohlin changed some of the model assumptions, for example, introducing a second factor of production, but did not question its basic message),³ the nation state has remained a pivotal force, influencing international flows not necessarily opposed to free trade, in the sense of the existence of formal obstacles to circulation, but rather associated with it. Even in areas of deep economic integration such as the European Union, where some traditional attributes of the nation states seem to have been reduced or lost (e.g., exchange rates and central interest rates in “Euroland”), they nonetheless remain crucial for the understanding of international flows, not only because of the EU policymaking apparatus, but also through less visible channels that provide asymmetrical information to the economic agents of a particular location. By this, again, we do not mean traditional instruments like the raising of tariff and nontariff barriers

³ It is true that Keynes recognized the role of the state, but mainly in the context of closed economies, also with exceptions, particularly in his proposals for the international monetary order of 1942 (creation of an international currency named the bancor, functionality between surplus and deficits of different countries participating in the system, etc.); see Ikenberry, 1992.

or controls of factors,⁴ but through less visible means that perhaps provide a much more powerful basis for networks that drive trade and other flows in one or another direction. Since the beginning of the 20th century, the number of independent states has approximately tripled and this trend must have some kind of economic rationality. This is a very important point at a time when there is a widespread conviction that nation states are fading, if not a mere remnant of a previous era.

To summarize, even if the long term interests of a nation state can best be served by free trade, in the sense that the absence of tariff and nontariff barriers, controls of factors and so on, improve welfare and efficiency, this must not conceal a large number of specific characteristics deriving from the fact that the role of the nation state can make all the difference in the global competition (whether advantageous or not depends on the adequacy of the implemented policies and strategies).

3. The influence of language and history in the direction of international flows

With regard to the imperfections mentioned earlier, one perspective leads us to examine the external relations between countries, particularly those that have some forms of cultural proximity, which is relevant in the globalization era, characterized as it is by increasing economic interdependence and growing crossborder flows. This evolution can be described as follows: “Under conditions of full, free international competition, a country will best be able to maintain its position in areas with which it has a strong cultural affinity” (Bergeijk, 1996: 210). Since countries are often bound by a set of common features such as language and history, the influence of these factors on trade and other international movements can be felt in a number of ways.⁵ If such links are taken into account, not all nation states are on a level playing field from the free trade point of view, including related direct consequences such as specialization.

The case of a common language binding different countries is highly illustrative of this phenomenon and its effects. The diversity of language is often presented as an obstacle to

⁴ As far as the European Union is concerned, the power of memberstates is also negligible in these areas.⁵ Cultural proximity (as well as differences), although a more complex issue, has been explored since the middle of the 1970s in the literature on the internationalization of firms, for example by the Uppsala model (Johanson and Vahlne, 1977); according to this approach, in the first stage of the process, firms internationalize where there is less cultural or psychic distance.

flows, particularly for multinational firms (Luo and Shenkar, 2006: 322). However, languages may also be trade creators (Bergeijk, 1996: 210) or have a strategic potential for international actors (Luo and Shenkar, 2006). This possibility may seem relatively unimportant for many bilateral trade relations; however, as argued by Mises in his work *Nation, State, and the Economy* (1919), we need to take into consideration that language is the primary factor to the identification of a nation state (“what is specifically ‘national’ lies in language”, p. 11). Of course, “community of language binds and difference of language separate persons and peoples” (Mises, 1919: 12), but there is no contradiction between this and the large use of a lingua franca; both phenomena are simultaneously relevant in the globalization context. Furthermore, if language effectively plays a key role in the nation state,⁶ what is still more important is to look at the economic consequences of this process.⁷

For trade purposes, *ceteris paribus*, countries with the same language have less communication costs between them, which implies relatively smaller barriers to the free movement of goods, services and factors (common language as trade facilitator). It also leads to the creation of larger natural markets for some products (particularly those dependent on language, for example media products). Thus, this link may have profound consequences for the producers and consumers of concerned countries under free circulation, and in the conditions of tough competition prevailing in the context of globalization (in which firms seek to profit from the smallest advantages). Even firms of third origin, i.e. not belonging to the same linguistic group, can take advantage of this crossborder proximity. The empirical work on various cases has largely demonstrated the relevance of linguistic ties to trade (Breton, 1999).⁸ The boom in foreign direct investment and the capital movement of the last two decades has allowed new tests, suggesting the same correlation between language and these flows (Silva, 1999a, 2005)

⁶ Mises even separates the notion of the nation state into its two elements, meaning that we may have different states within the same nation state (“the criterion of the nation should in no way be sought in efforts to form a unified state”; 1919: 189).⁷ Also, it is important to acknowledge that there is in general an increasing interest on the role of language on economics; see the papers collected in Lamberton, 2002.⁸ See, for example, the empirical surveys included in the work edited by Breton, who, in presenting their results, emphasizes: “It is because of language that English or Germanspeaking countries trade more with each other than with other countries and not because – as is the case with Germanspeaking countries – they are neighbors. This is a very important result.” (1999, p. 1).

With reference to historical ties, Eichengreen and Irwin (1998) studied empirically different groups of countries bound by such ties, concluding that the past flows determine to some extent the present ones. Moreover, they consider that the influence of this factor has often been wrongly overshadowed by the preference for economic integration as the explaining variable:

“We have argued that both theory and evidence suggest that history plays a role in shaping the direction of international trade ... Because there are reasons to anticipate a positive correlation between the predominant direction of trade flows in the past and membership in preferential arrangements in the present, there may be a tendency to spuriously attribute to preferential arrangements the effects of historical factors and to exaggerate the influence of the former” (p. 556).

In addition, these authors criticize the use of the standard gravity model as a basis for explaining bilateral trade, insofar as it gives preference to physical variables such as distance and economic size, while regarding history as inappropriate (Eichengreen and Irwin, 1998: 56). A similar move towards the acknowledgement of the relevance of history is clear in the field of international business (Jones and Khanna, 2006).

It must also be pointed out that in presentday globalized economies and business, this type of linkage, on the one hand, language and history, on the other hand, trade, FDI and other international transactions, is a scarce resource. Indeed, as stressed by an author quoted by Rauch (2001) in a paper relating business social networks to international trade flows:

“Today ...new transportation and communication technologies allow even the smallest firms to build partnerships with foreign producers to tap overseas expertise, costsaving, and markets ... The scarce resource in this new environment is the ability to locate foreign partners quickly and to manage complex business relationships across cultural and linguistic boundaries ...The Chinese and Indian entrepreneurs of Silicon Valley ... are creating social structures that enable even the smallest

producers to locate and maintain mutually beneficial collaborations across long distances” (p. 1177).

Thus, the relevance of the nation state and its underlying features within the free trade paradigm is not only valid bilaterally, but also for a group (or groups) of countries and international actors, like firms and states, of the most diverse origins. Indeed, they can be linked by natural networks created on a worldwide scale that, by means of knowledge, introduce imperfections into the competitive process, intended to produce some kind of effective advantage for the players. From a global point of view, it is necessary to consider these peculiar features between countries or groups of countries as indispensable for a correct explanation of the free trade flow, the distribution of its gains and other related aspects.

4. Currency disequilibrium and the international trading system

One of the main channels through which the nation state plays a greater role in the world economy is currency. The power exerted over this instrument may significantly distort free trade as a pure search for efficiency and also lead to unequal gains. Even if in some historical periods, the world economy has been served by an international currency acting as a level playing field for different countries, such as in the gold standard era, or with a particular national currency as in the Bretton Woods system (US dollar), states can actually manipulate their own currency. Moreover, they often substantially shift the course of trade through exchange rates insofar as they alter the level of relative prices among partners. Despite the fact that the European Union has recently created a common currency and that other countries have indexed their money to an anchor in order to reduce exchange uncertainties, the general currency disequilibrium that has largely prevailed in this field since the 1970s may profoundly modify the global competitive position of a country. In particular, states with reserve currencies, even though few, are attracted to the use of their money in this way, mainly for domestic purposes, because of their monopoly power resulting in palpable asymmetrical gains (McKinnon, 2001). In addition, such countries may benefit from fewer adjustment costs to trade-induced changes. In this light, it is clear why the United States strove throughout the 20th century for its currency's autonomy (Mundell, 2000). Furthermore, in the last three or four decades, the world's leading currencies have often shifted their relative value in a way

that can hardly be founded on economic fundamentals (for instance, suffice it to look at the frequency of sharp rises or falls of the same currency in the short term).⁹

After the Second World War, in order to reduce the disharmony between international monetary and trade orders, and its immense political consequences as experienced in the interwar period, a degree of multilateral cooperation was sought (see, for example, Article XVI of the GATT, which established “exchange arrangements” with the International Monetary Fund). However, since the early 1970s, this approach has lost any practical relevance and states have gained an important monopoly power in this field. Moreover, the creation of the WTO in 1995, with its set of new articles and regulations has not changed this framework and except for the highlyintegrated regions, the cooperation between trade and exchange arrangements has been abandoned and free trade as such has been affected. As mentioned above, this is especially true for reserve currencies, international by name, but, in fact, belonging to particular countries that may use them either for domestic purposes or external influence. It is not necessary for all countries to have significant power over their currency; rather, it is enough that only some of them have it, particularly if they are powerful trading nations. This can alter the patterns deriving from free trade on a global scale, and lead to asymmetrical gains and advantages. Therefore, the national currency problem should be straightforwardly considered for the effects of its relationship with trade, at least by the international trading system in its search for the reduction of barriers. This major link however has so far been neglected by such selfproclaimed advocates of free trade as Jagdish Bhagwati. Indeed, in his works like *The World Trading System at Risk* (1991) and *Free Trade Today* (2002) that by their own nature should deal with this issue, it is barely mentioned. However, it is difficult to find any free trade in situations in which the manipulation of currencies constantly alters their relative value, thus having a strong impact on specialization and other aspects through changes (more often great rather than small) in international prices.

5. Concluding Remarks

After a long period of stagnation and slow progress, the new globalization era has clearly speeded up the pace of theoretical change in international economics. Just to mention one example, the theory of imperfect competition was only more broadly recognized as relevant in

⁹ See for example, the evolution of the exchange rate between the euro and the US dollar, since the launch of the

this field (Dixit, 1983) some fifty years later than in industrial economics (in the 1930s). Indeed, the theories of trade emerged from the classical teachings and later schools of the mainstream within narrow limits that left in the shadow many of their developments, including those concerning the substance of international specialization, the relation with growth, and the distribution of gains. Although truly consolidated advances have yet to take place, post1980s globalization seems to provide more favorable ground for theoretical change and reform, while requiring careful scrutiny of the forces actually driving international trade and other flows. For example, based on the history of economic thought, some authors have proposed as a key explanation for international trade specialization, policies favoring industries with increasing returns to scale (Reinert, 2007). Others have pointed to the decisive role of technology in the process (Orati, 2003). Hence, this is a promising field for research, and it is likely that we are at a propitious moment for the strengthening of alternative approaches.

In this context of change, we have analyzed a specific issue relating free trade with nation states and some of its major underlying factors. On the one hand, the assumption of free trade as a general philosophy, including the suppression of any type of barriers (traditional tariffs, nontariff barriers, controls over the movement of factors, including transnational mergers and acquisitions), may coexist with significant imperfections that, in fact, do not lead to a level playing field among partners participating in the international competition. On the other hand, the concept of free trade as it is usually presented in textbooks and papers, i.e. without considering the role of the nation state, diverts from the study of true conditions under which this competition actually evolves. Some of the factors of this scenario are enduring realities, such as nation states, languages and history, while others, for example national currencies, may be more historically determined in their relation to the international economic order. Whether the former or the latter, their influence on the direction of trade flows cannot be overlooked. Thus, given context of globalization as a ground for free trade and a level playing field for all countries, if we consider that a flawed interpretation of the real world economy is unacceptable, the role of nation states must be fully integrated into the theoretical explanations, even if this implies the recognition of imperfections that cannot be blurred in the name of simplification.

single European currency in 1999.

REFERENCES

- BERGEIJK, P. van (1996). The significance of political and cultural factors for international economic relations, in C. J. Jepma and A. Rhoen, Eds, *International Trade, A Business Perspective*, Longman and Open University of the Netherlands, London, pp. 4574.
- BHAGWATI, J. (1991). *The World Trading System at Risk*, Harvester Wheatsheaf, New York.
- BHAGWATI, J. (2002). *Free Trade Today*, Princeton University Press, Princeton and Oxford.
- BRETON, A. (1999). *Exploring the Economics of Language. New Canadian Perspectives*, Canadian Heritage, Ottawa.
- DIXIT, A. (1983). "International trade policy for oligopolistic industries", *Economic Journal*, Vol. 94, Supplement, pp. 116.
- EICHENGREEN, B. and IRWIN, D. A. (1998). The role of history in bilateral trade flows, in J. A. Frankel, ed. *The Regionalization of the World Economy*. National Bureau of Economic Research/University of Chicago Press, pp. 3357.
- HIRSCHMAN, A. O. (1945, 1980). *National Power and the Structure of Foreign Trade*, University of California Press, Los Angeles.
- IKENBERRY, G. J. (1992). "A world economy restored: expert consensus and the AngloAmerican postwar settlement", *International Organization*, Vol. 46, n° 1, pp. 289321.
- IRWIN, D. A. (1996). *Against the Tide: an Intellectual History of Free Trade*. Princeton University Press, Princeton.
- IRWIN, D. A. (2002). *Free Trade under Fire*, Princeton University Press, Princeton.
- JOHANSON, J. and VAHLNE, J.E. (1977). "The internationalization process of the firm – A model of knowledge and increasing market commitment", *Journal of International Business Studies*, Vol. n° 3, 305322.
- JONES, G. and KHANNA T. (2006). "Bringing history (back) into international business", *Journal of International Business Studies*, Vol. 37, n° 4, pp. 453468.
- KRUGMAN, P. (1991). *Geography and Trade*, The MIT Press, paperback edition, Cambridge/Mass.
- LAMBERTON, D. M., Ed. (2002). *The Economics of Language*, An Elgar Reference Collection, Cheltenham, UK / Northampton, MA.
- LUO, Y. and SHENKAR, O. (2006). "The multinational corporation as a multilingual community: Language and organization in a global context", *Journal of International Business Studies*, Vol. 37, n° 3, pp. 321339.
- McKINNON, R. (2001). "Can the world economy afford US tax cuts? The international dollar standard redux", *Finance & Development*, June, IMF, Washington, pp. 1417.

MISES, L. von (1919, 1983). *Nation, State, and the Economy: Contributions to the Politics and History of our Time*, Translated from the German by Leland B. Yeager, New York University Press, New York.

MUNDELL, R. A. (2000). "A reconsideration of the twentieth century", *American Economic Review*, Vol. 90, n° 3, pp. 327340.

ORATI, V. (2003). *Globalization Scientifically Unfounded*, *International Journal of Applied Economics and Econometrics*, a Special Edition, Bangalore; Access by www.iaess.net

RAUCH, J. E. (2001). "Business and social networks in international trade", *Journal of Economic Literature*, Vol. XXXIX, December, pp. 11771203.

REINERT, E. S. (2007). *How Rich Countries Got Rich ... and Why Poor Countries Stay Poor*, Constable, London.

RICARDO, R. (1817, 1965). *The Principles of Political Economy and Taxation*, Everyman's Library, J. M. Dent & Sons Ltd Publishers, London.

SCHUMPETER, J. A. (1954). *History of Economic Analysis*. 6th edition, Allen & Unwin, London.

SILVA, J. R. (1999a). "Les relations économiques lusobrésiennes au temps de la mondialisation", *Lusotopie*, Volume 6, Éditions Karthala, pp. 5599.

SILVA, J. R. (1999b). "Trade between asymmetrical democratic countries", *Journal of Economic Studies*, Volume 26, n° 4/5, pp. 412426.

SILVA, J. R. (2005). "A internacionalização das empresas portuguesas: a experiência brasileira", *RAE – Revista de Administração de Empresas*, Vol. 45, Fundação Getúlio Vargas (São Paulo), pp. 102115.

WILLIAMS, J. H. (1929). "The theory of international trade reconsidered", *The Economic Journal*, June, pp. 195209.

ECONOMICS IN THE AGE OF GLOBALIZATION

by

Constantine E. Passaris, Ph.D.
Professor & Chair Department
of Economics University of
New Brunswick Fredericton,
New Brunswick Canada

International Institute of Advanced Economic and Social Studies
Viterbo, Italy

March 31, 2006

ABSTRACT

This paper explores the new frontiers and evolving transformation of economics in the age of globalization. It confronts the challenges and underlines the opportunities during the decades ahead. The context of this transformation in economics will be dictated by the realities of the new global economy.

The new economy is comprised of a trilogy of interactive forces that include globalization, trade liberalization and the information technology and communications revolution.

Globalization has melted national borders and redefined macroeconomic policy. Free trade has enhanced economic integration and extended the economic architecture. The information and communications revolution has made geography and time irrelevant and enhanced the reach of economic parameters.

The 21st century will lead to a rediscovery of Schumpeterian theory. Indeed, the pivotal role that Schumpeter assigned to entrepreneurship and innovation will underline the relevance of his economic theories and intellectual vision for the new global economy. In addition, Schumpeter's theoretical framework will become the catalyst for linking microeconomic foundations with macroeconomic theory.

The new global economy will influence in a profound and indelible manner the scope and substance of economics in the 21st century. It will also define the role that economists will play in the context of the structural transformation of the academic landscape and the emerging new institutional architecture. Alternative economic approaches will become more prominent. This transformation of economics during the 21st century will lead to the rediscovery of the value of institutional economic history and the history of economic thought. It will contribute to resolving the confrontation and the dichotomy between the quantitative school and the qualitative approach. This paper will also analyze the distinctive role that economics will play in the resurgence of interdisciplinarity and the emergence of new disciplinary synergies.

Retrospective

In order to look to the future one must necessarily glance at the past. This paradigm has stood the test of time. Indeed, it is not coincidental that the Roman god Janus, after whom the first month of the calendar year January is named, is always depicted with two faces, one in the front of his head looking forward and one in the back looking backwards. He was the guardian of doors and gates who presided over new beginnings.

It is appropriate that we commence this prospective analysis of economics with a retrospective glance at the past. There is no denying that economics has always been in a constant state of evolution, transformation and technical refinement. The history of economic thought attests to the structural changes in philosophical orientation and theoretical direction that have taken place over the past centuries. Indeed, I would be remiss if this retrospective did not underline the pivotal contributions of the economic giants who shaped the theoretical transformation and temporal evolution of the discipline through the centuries. Intellectual visionaries such as Adam Smith in the 18th century, David Ricardo in the 19th century and John Maynard Keynes and Joseph Alois Schumpeter in the 20th century.

The classical roots of economics in the 18th century were the brain child of Adam Smith who set the foundations for modern day economics. His seminal work under the title of “An Inquiry into the Nature and Causes of the Wealth Nations” (1776) captures the essence of his contributions to economic theory. In this book he proposed the benefits of the division of labour (specialization) and developed the theory of laissez-faire economics through the workings of the market mechanism (price system). He is widely known as the originator of the concept of the invisible hand where markets would guide economic activity like an invisible hand in the efficient allocation of resources. Prices would be the instrument for achieving this process. A center piece of Smith’s economic theory was the pivotal role of economic self-interest. This along with the theory of utilitarianism that Jeremy Bentham developed around the same time was instrumental in launching the neoclassical theory of the 20th century. The neoclassical theory emphasized the allocation of scarce resources among competing demands. In this felt swoop, economics was transformed into a science of “rationality”. During this journey economics embraced the application of mathematical models and modern statistics. Furthermore, in its contemporary version, neoclassical theory maintains that individuals, households and corporations pursue their best interests in a rational manner and that competition is the catalyst that forces prices, wages and the markets for goods and services to gravitate towards equilibrium

David Ricardo developed two important economic theories that have stood the test of time, the distribution theory and the international trade theory. He argued that an increase in population would lead to the cultivation of more land. However, the return from this land would not be constant as the amount of capital available would not grow at the same rate. In consequence diminishing returns would set in. Ricardo introduced the concept of economic rent whereby extra land that was brought into cultivation would become more and more marginal in terms of profitability and eventually returns would not be enough to attract any additional capital. In short, the allocation of each factor of production to each area of economic activity would therefore be determined by the level of economic rent that could be earned. As the economic rent declined due to diminishing returns, capital would shift to more profitable activities. In his parallel theoretical contribution, Ricardo’s theory of international trade concentrated on the concept of comparative advantage. A country would gain from international trade if it was more

efficient and incurred a lower cost in the production of some goods and services. Ricardo proved that if one country produced a good at a lower opportunity cost than another country, then it should specialize in that good. The other country would therefore specialize in another good and the two countries could then trade. If all countries specialized in producing those goods and services where they had a comparative advantage, then world economic welfare would be enhanced.

John Maynard Keynes became the most prominent economist of the twentieth century. His best known work was “A General Theory of Employment, Interest and Money” (1936). This book marked the birth of modern macroeconomics. His economic theories were a blueprint for post World War II economic policies. He introduced a greater role for government in the economy through fiscal and monetary policy in order to avoid the Great Depression of the 1930s from ever happening again. Keynes’ publications are considered the most coherent critique of the classical economic theories at that time. Keynesian economics is primarily about demand-management policies whereby government should actively intervene in the economy to manage the level of demand. It can do this most effectively by implementing counter-cyclical demand management fiscal and monetary policies and in consequence mitigate the adverse effects of the business cycle on such economic variables as unemployment and inflation. Keynes is undeniably the founding father of modern day macroeconomics.

Joseph A. Schumpeter was a contemporary of Keynes who emphasized the importance of microeconomic theories. Author of many books including the “Theory of Economic Development” (1912) and “Business Cycles” (1939). He emphasized the role of innovation and entrepreneurship in contributing to economic growth and introduced such terms as business strategy and creative destruction to the economic literature.

The Monetarist school of thought emerged at the University of Chicago as the brain child of Nobel laureate Milton Friedman. It advocates that changes in the money supply are the most effective instrument of government economic policy and the main determinant of the price level. Monetarist theories maintain that inflation is caused by expanding the money supply faster than the economy. This theory prescribes restraints in money supply growth and government expenditure as the cure for inflation, even though the immediate effect would be an increase in the unemployment rate.

The prevalence of neoclassical economics in the latter part of the 20th century precipitated the emergence of heterodox economics which included Marxist economics, the school of Austrian economics which does not subscribe to the neoclassical foundation that economies necessarily gravitate towards equilibrium, as well as post-Keynesian economics which underline the importance of uncertainty in economics. Furthermore, the incapacity of mainstream theory to address some of the contemporary economic and social issues has forced the development of sub-disciplines such as gender economics, environmental economics, transition economics, multicultural economics and the economics of jurisprudence to name but a few. Finally, among the array of modern economic theory schools is one that subscribes to the evolutionary theory which adheres to a vision of economics that is similar to the evolving biological systems and includes as one of its founders Thorstein Veblen.

New Economy

The new frontiers of economics and the role that economists will play in the 21st century will be determined by the evolving challenges and opportunities of the new global

economy. Indeed, the new global economy will influence in a profound and indelible manner the scope and substance of economics in the 21st century. The new global economy has transformed the economic, social, educational and political landscape in a profound and indelible manner. Never before in human history has the pace of structural change been more pervasive, rapid and global in its context. The new economy is composed of a trilogy of interactive forces that include globalization, trade liberalization and the information technology and communications revolution. Globalization has melted national borders and redefined economic policy. Free trade has enhanced economic integration and extended the economic architecture. The information and communications revolution has made geography and time irrelevant and enhanced the reach of economic parameters. Furthermore, the new economy is built on a culture of innovation. Indeed, the signature mark of the new global economy is new ideas, new technologies and new initiatives.

Economic growth and development in the new global economy has been preceded by a complex structural realignment of the investment streams, the clustering of business enterprises, the transformation of the production process, the adoption of a niche marketing approach and the emergence of a new landscape of economic architecture. Furthermore, it has necessitated the effective integration of state-of-the-art technologies in the domain of information and communications in order to enhance competitive advantage in the forum of international trade. All of this has resulted in the fundamental restructuring of economic society. The role of innovation as a catalyst that drives the engine of economic growth needs to be acknowledged as a fundamental postulate of the new global economy. Furthermore, the pivotal role of a country's human resources and the unique economic value of its human capital endowment reflected in the educational attainment and technical skills of its population is an essential prerequisite for empowering the new economy and facilitating the integration of labour in the knowledge based industries. Life long learning and the continuous upgrading of skills as well as the structural reorganization of the work place have become essential parameters of a country's contemporary economic profile. The knowledge based economy is fuelled by technology, human capital and research and development which contribute to accelerating levels of productivity and economic performance. In short, the fuel of the new economy is technology and its currency is human capital. The product of the new economy is knowledge and its market is the virtual marketplace of the internet. Global opportunities require competitive tax levels, investment in research and development, an emphasis on education and training and industrial clusters of excellence all geared towards world wide niche markets of the new global economy. All of this delineates the new intellectual parameters for economics in the 21st century.

The structural transformation of the new global economy has not been confined to the economic parameters. It is equally pervasive in the way we live, learn, work, invest, provide for our health care, entertain ourselves, exercise our democratic responsibilities, influence the formulation of public policy and communicate with each other. Public services, banking, education, health care and electronic commerce are at the forefront of the Information Revolution with the capability of accessing information, services and products from around the world almost instantaneously. The rapidity of change and the magnitude of the structural transformation are the hallmarks of this new economic revolution. A pace of change that is unprecedented in the history of humankind. The information and communications technology of the 21st century has made possible the contraction of time and space. The new information and electronic capabilities are defining the new parameters and advancing the frontiers of economic connectivity.

Globalization

Globalization is not a new concept. It has evolved and mutated over the centuries to reflect the priorities and ambitions of different generations. The global outreach of nations for geopolitical, economic, military and trade benefits has transgressed the centuries and embraced almost every country in the world. From time immemorial the process of globalization has taken different forms and proceeded in different directions. Through the discovery and exploitation of new found lands, through the military conquest and annexation of adjacent territories and through the signing of contemporary multilateral free trade agreements, the process of globalization has been an uninterrupted continuum in the evolving history of mankind. This steady progression of globalization has found expression in the geopolitical and economic ambitions of military, economic and political superpowers by means of wars, mercantilism, colonization, political and economic supremacy and more recently through international economic liaisons and multilateral trade agreements. In short, history bears testimony that the pursuit of globalization was at times accomplished with the power of the sword on the battlefield, or through a coup d'etat that sent tanks rumbling down the streets, or more recently through the stroke of a pen on an international agreement. The contemporary phase of globalization reveals that it has many dimensions economic, social, political, cultural, religious and environmental. All of these dimensions are congruent to the new thrust of globalization in a borderless world with a tremendous capacity for virtual connectivity.

A working definition of economic globalization can be summarized as the global integration of economies through trade and investment flows as well as the internationalization of the production of goods and services in order to enhance global competitiveness. Other capsulated definitions include the process of accelerating international integration of markets that result in an integrated global market without national economic borders. More specifically the economic profile of globalization includes the development of global corporations and global networks, the widespread internationalization of all forms of economic activity in production, marketing, consumption, capital, standards and tastes, a rapid growth in intra-firm and intra-network trade of components and sub-assemblies as well as finished products leading to a much higher level of specialization, the development and wide diffusion of lean production methods and a much greater disaggregation and even disintegration of production, the migration of labour-intensive, standard-technology production, - including components, sub-assemblies and finished products - to low-wage economies, the "brain drain" or migration of highly educated and skilled labour to countries of advanced information technology, the successful integration of a multinational and multicultural workforce in order to strategically deploy the economic and social benefits of diversity, the re-orientation of large-scale production in high wage economies from economies of scale to economies of scope; the shortening of product cycles, placing a high premium on innovation, product quality and niche marketing; the integration of outside financial and other services into the production cycle; and the rapid growth and diffusion of service and knowledge-intensive activities-both products and processes-particularly in advanced industrial economies.

Globalization has been driven by technological change and financial liberalization and sustained by an appreciation among policy makers that an open, liberal and rules-based international trading and financial system is essential to global economic progress. The new economy has become truly global in scope and substance. The free flow of capital, labour, goods and services within free trade regions, the development of new financial instruments and institutions, instantaneous access to information and communication through the new digital networks, have created a fully integrated global economic system of tremendous scope and opportunity and achieved a higher level of international economic interdependence and linkages than ever before.

Trade Liberalization

The second axiom of the new economy is trade liberalization. The prevailing philosophy in favour of trade liberalization is based on the export led growth model which espouses the economic benefits of exports to the national economy in the form of employment creation, income generation and as a contributor to economic growth. Indeed, the concept of trade as an engine for growth has been an economic paradigm with a long history and an endowed legacy that has been passed down from the trade theorems of the nineteenth century.

There is no denying that in the contemporary context, most countries around the world have endorsed the principle and signed on to the potential economic rewards from global trade liberalization. This has taken the form of a strong policy commitment toward public declarations that protectionism is over and a strong expression of intent to dismantle the walls of protectionist tariffs, quotas and all forms of barriers to international trade. The contemporary vision of the new global economy embraces the promotion of a free trade environment that encourages trade across national borders of goods and services, the transfer of intellectual property and the unregulated flow of capital. In this respect, the modern phase of free global trade promotes an ambitious agenda that includes not only trade and payments, but the whole gamut of international transactions that will effectively create an open, competitive and stable international environment.

One of the most striking differences between the new economy and the one that preceded it is found in the magnitude and rapid movement of international capital flows. Capital account liberalization, the development of new financial instruments and the new digital technologies have created a fully integrated capital market of tremendous scope and substance. Indeed, a major force driving the growth of international trade and investment has been the liberalization of global financial transactions as well as exchange and capital controls. Furthermore, technological and financial innovation has triggered a demand for more appropriate international exchange and payment systems. It has also necessitated a more acute emphasis on the development of sound financial systems, compliance with the principles of good governance and the implementation of sound fiscal and monetary economic policies. In some countries, such as transition economies, this has meant adopting a comprehensive program of economic reforms that involved the development of domestic financial markets and institutions and the adoption of consistent macroeconomic policies. This in sharp contrast to historical precedent that relied heavily on administrative controls to regulate international exchange and payments as well as capital transactions.

The larger volume of private capital flows has generated a greater reliance on interbank markets to coordinate the supply and demand of foreign exchange. The trend toward adopting more flexible market based exchange rate arrangements has been partly responsible for the contemporary movement towards currency convertibility. As countries eliminated exchange restrictions for current international transactions and liberalized capital movements, they created conditions conducive to the development of domestic foreign exchange markets where exchange rates could be determined more flexibly. The increase in capital flows has placed a premium for countries to adhere to consistent monetary and exchange rate policies, in most cases, the policy response to capital inflows has involved allowing more flexibility in exchange rate arrangements.

Trade liberalization is predicated upon a favourable domestic economic climate and enhanced international competitiveness for domestic products. In this regard, national attentiveness to a balanced approach of government revenue and expenditures within its fiscal policy and the pursuit of a monetary policy that aggressively monitors inflation levels within a predetermined acceptable corridor is perceived as the most appropriate policy mix for promoting economic growth and enhancing free trade. In short, the complementarity of an enlightened approach to both fiscal and monetary policies can enhance the international competitiveness of domestic products in the global economy.

Trade liberalization has been aggressively pursued in the recent past at the multilateral and bilateral level. The cumbersome and time consuming process of reaching agreements at the multilateral level particularly through United Nation institutions such as the World Trade Organization (WTO) and its predecessor the General Agreement on Tariffs and Trade (GATT) has led to the exploration of alternative forums for international trade agreements. Countries have found it more convenient and expedient to organize their multilateral free trade agreements within geographic regional trading blocks. In addition, to regional trading blocks such as the European Union and the North America Free Trade Agreement there are several other regional common market trading blocks. The Common Market of South America, the Andean Pact, the Central American Common Market, the Caribbean Common Market, the Southern Africa Customs Union and the Common Market for Eastern and Southern Africa. In addition regional economic agreements include the Asia-Pacific Economic Cooperation and the Association of South East Asia Nations.

Regional free trading arrangements such as those mentioned above can contribute to economic efficiency, trade, investment and economic growth. They are also substantial contributors to structural reform by creating incentives to eliminate restrictive trade practices and licensing procedures, streamlining customs procedures and regulations and integrating financial markets. Also regional trading blocks can promote the simplification of transfers including payment and procedure policies related to transportation, infrastructure, labour and immigration and in some countries harmonizing investment regulation incentives, tax treatment, as well as standards and technical regulations.

The dynamics of contemporary trade flows are significantly different from the traditional patterns of international trade. The world has witnessed electrifying changes in the nature and character of international trade. By and large, international trade in its contemporary phase has been dominated by transnational corporations which account for more than two-thirds of world trade. Consequently, there has been a significant increase in intra-firm trade which amounts to about 40 per cent of total trade. Furthermore, the internationalization of production has resulted in a growing vertical specialization in world trade. As a result, there has been a marked increase in the use of imported inputs or components in the production of goods exported from developing countries. In this respect, if an increase in exports is the result of an increase in imports, then the net effect of trade would largely depend upon the structure of exports and imports, import content of exports, terms of trade and crowding-out effects, among other things. In short, the traditional theoretical models of international trade require a measure of renewal in order to reflect the current nature and dynamics of trade flows.

The increasingly interconnected global economy requires the active promotion of international economic cooperation, free and fair trade opportunities for developed and developing countries, the reform of the international financial system, maintaining the momentum for structural economic reform and encouraging economic growth and the eradication of poverty in the poorest countries. All of this within the overriding objective of sound macroeconomic conditions and strong non-inflationary growth.

Information Technology

The information technology revolution has profoundly altered the structural parameters and the modus operandi of most national economies. Indeed, the transformation from the industrial age to the information age has resulted in the restructuring of the work environment, the creation of new economic institutions and a reconfiguration of the economic system. There is no denying that the role of information and communications technology in the new economy has been pivotal. This is particularly true of the changing structure of international production. In this context, firms are integrating the production and marketing of goods and services across national borders. International economic transactions that were formerly conducted between independent entities are now being internalized within a single firm or multinational corporation. The new technological infrastructure has empowered services to be delinked from production and traded or performed remotely. In this contemporary venue the market for a growing number of internationally integrated but geographically dispersed business enterprises is global, rather than national or regional. Indeed, the collapse of time and space through the medium of information/communications technologies has displaced the physical market with the virtual market of the internet for business to business and business to consumer transactions.

The production of goods and the provision of services in the new global economy continues to be dictated by the economics of profitability. In other words, the high cost of the information technology infrastructure and highly skilled labour used in the production process require a marketing niche that caters to a large global market than a small national market. It has also necessitated the introduction of the concept of mass customization and sensitivity to cultural diversity. This in addition to the logistical benefits of integrating production globally and forming international economic liaisons in a passive or aggressive manner through mergers, acquisitions, hostile takeovers, alliances and networks in order to bring under administrative control economic transactions that were previously conducted at arms length in external markets.

The new economy has precipitated a dramatic face lift in the workplace structure. It has replaced the rigid, hierarchical, top-down structure with a more flexible, horizontal, integrated work place model. It has also spotlighted the three essential skill requirements of the information age. First, academic skills that provide the basic foundation to get and keep a job and to achieve the best results. Those include an ability to communicate effectively, think critically and continue to learn for life. Second, personal management skills such as the combination of positive attitudes, responsibility and adaptability. Those would include time management, individual accountability and meeting deadlines. Third, teamwork skills which require a personal disposition to work with other members of a diverse and varied group of individuals. Indeed the greatest challenge and the most unique opportunity for new age managers is to garner the tremendous potential and remarkable creativity of a workforce environment that brings together human diversity as well as professional and occupational dissimilarity in a harmonious and productive workplace structure.

At the very heart of the information and communications revolution is the vital process of the commercialization of scientific discoveries and new inventions. There is no denying that the road well travelled from invention to innovation is long and fraught with many obstacles. It is not unusual for many inventions to be left behind because of obstacles in securing the necessary financial capital or adapting an invention to the economic realities of mass production. Indeed an invention that is the product of a new idea, extensive research and a successful laboratory controlled experiment does not guarantee that it will result in the launch of an innovation. An idea for a new product, a better product or a new process that meets all its specifications as a blueprint and results in a successful invention in a controlled environment may turn out to be an unprofitable undertaking in the world of mass production and global competition. Furthermore, in the modern world the Graham Bell's, Thomas Edison's and Guglielmo Marconi's who endowed us with path breaking inventions practically singlehanded, are few and far between. Inventions today are more likely to be the product of a team effort and a concerted research and development initiative of some government laboratory, academic institution or a major corporation.

Economists are divided into two schools of thought regarding the process of inventions. The first school subscribes to the notion that inventions are an incremental and marginal process. The second school of thought argues that some inventions are the catalyst for abrupt structural change that permeates the economic landscape in a tidal wave of production realignments and technological clustering. Regardless of what school one subscribes to, there is no denying that the great inventions that took place during the Industrial Revolution between 1860 and 1900 had a profound impact on economic productivity and personal lifestyle. These inventions included electricity, the internal combustion engine, radio, the telephone, phonograph, motion pictures, the chemical and pharmaceutical industries, advances in entertainment, communications, urban sanitation and travel in the form of air and motor transportation. The Information Revolution has resulted in a new spurt of inventions with expansive structural changes and a significant economic transformation. It should be noted that at the start of the 21st century we are simply at the doorstep of a second significant cluster of innovations with a far reaching economic and social impact. The list of inventions ascribed to the new economy is still in its infancy but already it includes such significant inventions as computers, the internet and wireless telecommunications devices.

The impact of the Information Revolution has not been limited to the restructuring of the economy. It is equally pervasive in the way we conduct our social and personal lives as well as interact on a political and cultural level. The restructuring of the workplace has individualized the nature of work and has led to the disaggregation of labour. The nature of work has undergone radical change from permanent, full-time with very few job changes, to part time, contract work, responding to private and public sector out-sourcing, and a large number of job changes during one's working career. In turn, this transformation of the work environment has diluted the concept of the welfare state and punched holes in the social safety net. The challenge facing economic public policy in the new economy is to find a way for flexible work and flexible employment to continue to support social security entitlements and programs.

Internetization

Internetization is a word that I have coined to capture the pervasive influence of the

internet and the world wide web on all aspects of human endeavour for our society in the 21st century. It is a process that is empowered by the information and communications technology in a borderless world with a tremendous capacity for virtual connectivity. Hardly a day goes by when our individual and collective lives are not touched by some aspect of the information technology and communications revolution. From the way we shop, eat, dress, invest, travel, entertain ourselves, communicate with each other, access health care, or pay our bills. These are just a few of our routine daily functions that have been profoundly influenced by the process of internetization. We shop on-line, we access government services on-line, we book our travel itinerary on-line, attend church services on-line, we pay our bills on-line and we do our banking on-line. The electronic prefix that is appearing before an increasing number of our daily activities such as e-commerce, e-mail, e-learning and e-government is a tangible expression of the pervasive influence of the internet.

At the very heart of the information technology applications for the knowledge based sector of the economy is the widespread use of computers and robotics. A collateral benefit of this transformation has been the extraordinary scale of research and development in the quest for new applications to the advances in information and communications technology, the phenomenal growth of the software industry and related business services, the scale of investment in computerized equipment and in the telecommunications infrastructure as well as the rapid growth of niche markets for satellite and peripheral industries supplying information and communications technology products, specialized components and services.

Computers and avant garde software will play an increasingly important role in the intellectual transformation of economics and the statistical and mathematical applications of economic analysis and programming. This will be facilitated by data compression, high speed analysis and sophisticated programs. Indeed, the internetization of economics will pick up speed in the 21st century as research tools, electronic publishing and electronic communities become the standard for research methods, academic enquiry and the dissemination of knowledge .

Rediscovering Schumpeter

The ascendance of the new economy will lead to a rediscovery of the contemporary importance of Schumpeterian theories. Eclipsed during the second half of the twentieth century by John M. Keynes, Schumpeter's theories will witness a revival on the economic landscape as a consequence of the recognition of the pivotal role for entrepreneurship and innovation in the new global economy. I predict that economic theory in the 21st century will harness Schumpeterian theories towards developing a new theoretical framework by linking Schumpeter's microeconomic derivatives to the macroeconomic postulates for economic growth and development. This century will witness a renaissance and a rekindled academic interest in the intellectual vision and theoretical legacy of Joseph A. Schumpeter. It will also serve as a confirmation that at the dawn of the 21st century, Schumpeter's intellectual and theoretical legacy on the pivotal role of entrepreneurship and innovation remains a vibrant analysis and laudable framework for determining the causal factors that promote economic prosperity and contribute to the wealth of nations.

Joseph A. Schumpeter along with John M. Keynes are widely regarded as the intellectual economic giants of the twentieth century. While Keynes may have received more intense recognition in the western industrialized countries, Schumpeter's theories

were applied with much success in Japan's post World War II economic development. Schumpeter's economic analysis is a bottom-up microeconomic interpretation of the business cycle, as opposed to the Keynesian top-down model, which accords transcendent importance to money, employment and other macroeconomic variables. Whereas Keynes emphasized monetary and fiscal policies as the tools for influencing the course of economic events, Schumpeter concentrated on the economic contributions of leading industrial sectors such as textiles in the eighteenth century, railroads in the nineteenth century and electricity in the twentieth century. There is another significant difference between these two economic philosophers. Keynes emphasized the role of government as an agent for economic stability and a positive and constructive force creating an appropriate fiscal and monetary environment that was conducive to economic growth and development. In this regard, Keynes introduced a revolutionary economic concept that opened the door for government intervention in combating the excesses of the business cycle by allowing fiscal and monetary policy to reduce inflationary pressures during boom periods and creating employment opportunities during economic recessions. Indeed, Keynes is aptly lauded for laying the ground work and articulating an economic blueprint which would influence future generations of economists and international policymakers. Schumpeter, on the other hand, was a more rigorous economic theoretician who was adamant against applying economic theory prematurely to economic policy. Schumpeter, perhaps influenced by his personal experience as well as his trials and tribulations in government, felt that Keynes was exceedingly naive and that effective government action was far more tortuous than the Keynesian model postulates. That is why Schumpeter emphasized the predominance of sectoral economic analysis and the paramount importance of the entrepreneur as a catalyst for innovation and as the engine that drives economic growth and development. In his microeconomic scenario, innovation in the Schumpeterian model consisted of new products, new processes, new qualities of products, new sources of supply and new forms of business and industry organization.

Scholarly Publications

In 1912, Schumpeter published his second book **Theorie der Wirtschaftlichen Entwicklung** (The Theory of Economic Development). This was a pathbreaking book that linked Schumpeter's name permanently with the pivotal role of the entrepreneur in contributing to economic growth within the capitalist system. McCraw captures the essence of Schumpeter's theoretical model in this manner:

“In the hypothetical system he (Schumpeter) describes in this book, which begins with a ‘circular flow’ analogous to the static system of Walras and other neoclassicists, economic routine is periodically interrupted by bursts of entrepreneurial energy. These bursts come in clusters. Together they disrupt equilibrium, and this dynamic process, says Schumpeter, is the basis of economic development. More than that, it embodies the essence of capitalism. Here, as in his later work, Schumpeter is primarily concerned with the phenomenon of economic evolution. Most economists, then and to this day, have contented themselves with the study of static systems of exchange governed by ‘laws’ of supply and demand. Schumpeter, on the other hand, as he himself later put it in a rare autobiographical letter, ‘began

at an early age to look upon economic life essentially as a process of change, and I tried to make the main features of this change the center of my own type of theory.’ Hence his preoccupation with entrepreneurship. Hence also his careful specification of broad categories of development: the opening of a new market, the conquest of a new source of supply, the reorganization of an industry, the introduction of a new good or new way of production” (McCraw, 1991, 373-374).

Schumpeter’s third publication, **The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle** brought him international recognition for his intellectual vision and articulate expression of a systematic set of ideas regarding the role and contributions of entrepreneurship to the process of economic development. In his conceptual framework entrepreneurial initiatives would disrupt the tendency toward routine equilibrium by thrusting the economy towards a new plateau of economic linkages that was conducive to economic growth and a more prosperous standard of living.

In the Schumpeterian intellectual world the process of structural change is propelled by industrial activity. Hence the industrial structure has evolved over time through organizational development in a series of long evolutionary steps from crafts to factories to oligopolies. Essentially, it is a:

“process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one” (Schumpeter, 1942, 79).

It is in this context that he gives birth to his most famous phrase “creative destruction” by which he means the replacement of old products, old enterprises and old organizational forms by new ones. In his own words:

“This process of creative destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in” (Schumpeter, 1942, 83).

He also invented the term “business strategy” which is widely used to the present day in the board rooms of business corporations:

“Every piece of business strategy acquires its true significance only against the background of that process and within the situation created by it. It must be seen in its role in the perennial gale of creative destruction; it cannot be understood irrespective of it or, in fact, on the hypothesis that there is a perennial lull... In other words, the problem that is usually being visualized is how capitalism administers existing structures, whereas the relevant problem is how it creates and destroys them” (Schumpeter, 1942, 83-84).

He goes on to explain that:

“In capitalist reality as distinguished from its textbook picture, it is not competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization” (Schumpeter, 1942, 110).

The rewards for this economic initiative are “entrepreneurial profits which are the prizes offered by capitalist society to the successful innovator” (Schumpeter, 1942, 132).

Economists regard **Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capital Process** (1939) as Schumpeter’s most seminal contribution to economic theory. In this book, Schumpeter analyses the role of innovation as the foundation of the capitalist process. Indeed, he defines capitalism as a system in which innovation is the dynamo that leads to structural change and economic growth. Schumpeter charismatically articulates this concept in this manner:

“Without innovations, no entrepreneurs; without entrepreneurial achievement, no capitalist returns and no capitalist propulsion” (Schumpeter, 1939, 104).

Schumpeterian Model

Schumpeter was the first economist to challenge the classical model for economic growth in a systematic and profound manner. Classical economists from Adam Smith, David Ricardo and Thomas Malthus onwards promoted a model of economic growth that assumed the productive capacity of the national economy was characterized by a constant returns to scale production function (i.e. a doubling of factor inputs will yield a doubling of output) with diminishing returns to capital and labour setting in after a certain point. The second assumption was that firms operate in a world of perfect competition where business enterprises are price takers in a highly competitive market and whereby no individual firm has any influence over market prices and possesses absolutely no market power. The third assumption was that technological change is an entirely exogenous phenomenon, on par with wars and plagues, which is readily available to all countries at no cost.

In addition to challenging the first two assumptions of constant returns to scale and perfect competition, Schumpeter made a significant contribution to the economics of innovation and technological change. It was his pathbreaking economic vision that set the stage for a new perspective on innovation which embraces technological progress and new knowledge. In Schumpeter’s conceptual framework innovation accounts for any growth that cannot be explained by increases in capital and labour. It is noteworthy that technological know how, manufacturing experience and research and development are acquired at considerable cost and once acquired such proprietary knowledge is valued as trade secrets or hedged in by patents and other intellectual property rights. There is no denying that economic history attests to the important role played by innovation in contributing to employment creation, income generation and the overall process of enhanced economic growth.

The Schumpeterian economic model rests comfortably within the parameters of the capitalist system. He postulated that capitalism provided the most effective means for realizing economic progress. In his own words:

“Capitalism is by nature a form or method of economic change and not only never is but never can be stationary. And this evolutionary character of the capitalist process is not merely due to the fact that economic life goes on in a social and natural environment which changes and by its change alters the data of economic action; this fact is important and these changes (wars, revolutions and so on) often condition industrial change, but they are not its prime movers. Nor is this evolutionary character due to a quasi-automatic increase in population and capital or to the vagaries of monetary systems of which exactly the same thing holds true. The fundamental impulse that acts and keeps the capitalist engine in motion comes from the new consumers’ goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates” (Schumpeter, 1942, 82-83).

Schumpeter promoted an economic vision that embraced a free-market entrepreneurial capitalism, characterized by minimal government intervention and an emphasis on technological innovation and savings rather than consumption. The operating mechanism that leads to productivity gains and economic growth is induced by technological innovation. There is no denying that improvements in technology such as the introduction of the internal combustion engine, electricity, semi-conductors, computers etc. have resulted in substantive increases in total factor productivity.

The economic forces that promote total factor productivity are many and varied. They encompass 1) better machines, tools and equipment 2) enhancing the education and specialized skills of the labour force 3) organizational changes and improvements in processes 4) more efficient ways of motivating workers to perform productive tasks and improvements in teamwork and 5) the reform and renewal of the institutional infrastructure can also lead to an increase in the overall productivity of the economy. This is by no means an exhaustive list. It does however, capture the essence of the extent, variety and importance of causal factors that contribute to enhanced productivity. In the same vein, it highlights the crucial role of public policy in facilitating an environment that is conducive to capturing productivity gains and consequently achieving higher levels of economic growth.

National economies have finite amounts of capital and labour. Without technological progress the opportunities for growth would eventually run out. Growth can be sustained only by finding new and better ways to utilize our limited resources. In this respect, technological progress has always been an ingrained feature of national economies. What has changed in recent times is the pace of technological innovation. Schumpeter’s explanatory model for economic growth focused primarily on the role of technological innovation. He proposed a model that postulated growth through the interaction of bursts of technological development and competition between firms. Schumpeter saw capitalism as moving in long waves: every 50 years or so, technological revolutions would cause “gales of creative destruction” in which old industries would be swept away and replaced by new ones. Each wave of technology would fuel an upsurge in investment and create an impressive amount of job opportunities in new industries.

Schumpeterian Entrepreneur In his two seminal books **The Theory of Economic Development** and **Business**

Cycles, Schumpeter articulated his pathbreaking analysis on the role of the entrepreneur in economic growth. To this day, his body of work on entrepreneurship remains the most authoritative analysis on this subject area. According to Schumpeter, innovation is what determines the value of entrepreneurship to economic society. Schumpeter embraced the principle that innovation precipitates a change in the production function and the entrepreneur is the catalyst that brings it about. In this context entrepreneurship takes on added significance as the engine of growth and a contributor to the wealth of nations. The role of the entrepreneur in the progression of the technological cycles was paramount. Schumpeter explained this process in the following manner:

“The function of entrepreneurs is to reform or revolutionize the pattern of production by exploiting an invention or, more generally an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry and so on. Railroad construction in the earlier stages, electrical power production before the First World War, steam and steel, the motorcar.... This kind of activity is primarily responsible for the recurrent ‘prosperities’ that revolutionize the economic organism and the recurrent ‘recessions’ that are due to the disequilibrating impact of the new products or methods” (Schumpeter, 1942, 132).

This is perhaps an opportune time to draw a distinction between management and entrepreneurship. The manager has more limited, confined and static responsibilities in the day to day operation of a business enterprise. The entrepreneur, on the other hand, is more of an economic visionary. The functions of an entrepreneur are more dynamic and risk loving which embrace attempting new ways of doing business, trying new ideas or new production methods, introducing new products, new processes and new structural forms of business organizations. In short, managers improve a company that has already been established, while entrepreneurs create successful corporations.

Innovation Axiom

The process of “creative destruction” that contributed to the structural change of the economic landscape and promoted economic growth was attributed by Schumpeter to: “innovations do not remain isolated events, and are not evenly distributed in time, but... on the contrary they tend to cluster, to come about in bunches simply because first some, and then most firms follow in the wake of successful innovations” (Schumpeter, 1939, 100).

These long term innovation cycles are driven by different clusters of industries. The pattern that each cycle unfolds starts with the adoption of a set of innovations that are introduced into general use and subsequently lose momentum as the technologies mature and their profitability to investors decline with the contraction of business opportunities. This decline in economic growth associated with the loss of economic potency of innovation technologies subsequently to be followed by a new wave and new clusters of innovations which repeat the process of contributing to the structural transformation of the economy and lead to an upswing of economic opportunities and an upward trend in economic growth. This cyclical process of “creative destruction” was made possible

according to Schumpeter by the proactive role of the entrepreneur. In Schumpeter's model the entrepreneur's profit is temporary because by adopting innovative technology the entrepreneur enhances the cost-effectiveness of an existing product placing that firm at a competitive advantage over firms in the industry. The entrepreneur makes an abnormal profit because he sells the product at the market price which reflects the higher cost structure of the old firm in the industry. This profit margin will gradually disappear as other firms adopt the state-of-the-art technologies.

The evidentiary support for Schumpeter's long term innovation cycles commenced in the late 18th century with water power, textiles and iron. It was followed by steam, rail and steel in the mid 19th century. At the turn of the 20th century innovations in electricity, chemicals and the internal combustion engine took place. The third cycle peters off in the 1950's, with the ascendancy of electronics, aviation and petrochemicals. The decade of the 1990's ushers in the information age of the new economy with breathtaking innovations in digitalization, software, new media, genetics and fiber optics. It is worth noting that the duration of the innovation cycle appears to be contracting over time from an initial 50 to 60 year duration to a shorter 30 to 40 year period. In part this outcome is a recognition of the Schumpeterian importance of technological innovation to the process of enhanced productivity, as a contributor to economic growth as well as promoting business profitability. This recognition by both the private and public sectors has been most influential in increasing investment in research and development which is an essential prerequisite to facilitating technological innovation.

A central feature of Schumpeter's concept of creative destruction is the recognition that innovation is an endogenous process rather than an external and exogenous happenstance. In his intellectual vision, it is driven primarily by the competitive environment within which entrepreneurs pursue the profit motive. In this economic scenario, the adoption and implementation of innovation enhances market dominance and leads to abnormal profits.

In Schumpeter's own words:

“What we, unscientifically, call economic progress means essentially putting productive resources to uses hitherto untried in practice, and withdrawing them from the uses they have served so far. This is what we call ‘innovation.’” (Schumpeter, 1928, 64).

He goes on to say:

“Successful innovation...is a feat not of intellect, but of will...and appeals to, only a distinct type which is rare...It is this entrepreneur's profit which is the primary source of industrial fortunes, the history of every one of which consists of, or leads back to, successful acts of innovation. And as the rise and decay of industrial fortunes is the essential fact about the social structure of capitalist society, both the emergence of what is, in any single instance, an essentially temporary gain, and the elimination of it by the working of the competitive mechanism, obviously are more than ‘frictional’ phenomena...” (Schumpeter, 1928, 66-67).

The extrapolation of Schumpeter's microeconomic theories has the potential to form

the theoretical construct for linking microeconomics with macroeconomics in the context of the new global economy of the 21st century. In this context, innovation and technological progress are an inherently microeconomic phenomenon, which are in turn a consequence of optimum resource allocation and the profit oriented pursuits of economic activity. However, special mention should be made of the fact that they also result in the Schumpeterian waves of innovation and technological progress that have long term macroeconomic impact and consequences. In this regard, short run business fluctuations are in effect predisposed to contribute to long run growth and development:

“Economic progress, in capitalist society, means turmoil... [I]n this turmoil competition works in a manner completely different from the way it would work in a stationary process, however perfectly competitive. Possibilities of gains to be reaped by producing old things more cheaply are constantly materializing and calling for new investments. These new products and new methods compete with the old methods not on equal terms but at a decisive disadvantage that may mean death to the latter. This is how ‘progress’ comes about in capitalist society” (Schumpeter, 1942, 32).

It is worth noting that the economic environment whereby products and processes emerge, peak and decline, i.e. innovation and obsolescence takes place in an environment of imperfect competition. Schumpeter underlines that:

“The introduction of new methods of production and the new commodities is hardly conceivable with perfect competition from the start. And this means that the bulk of what we call economic progress is incompatible with it. As a matter of fact, perfect competition is and always has been temporarily suspended whenever anything new is being introduced” (Schumpeter, 1942, 105).

In its microeconomic constructs, Schumpeter’s concept of creative destruction embraces a multitude of features including imperfect competition, innovation and obsolescence, the rise and fall of products and processes, entrepreneurial functions, risk and uncertainty, short term market advantage and abnormal profits. All of these microeconomic antecedents result in the process of endogenous innovations. However, that is not the end of the story. They also lead to long term macroeconomic consequences in the form of economic growth and development. Indeed, this is the construct that should be amplified by way of creating the missing link between microeconomics and macroeconomics in the evolutionary development of economic theory in the 21st century.

Historical Context

History provides us with a constant and a sense of permanence. There are two parallel considerations that should be investigated in defining the historical context in economics. First an appreciation of the history of economic thought and second the historical context for economic events or institutional economic history. It is a sad commentary that on both counts the historical potency of the discipline of economics is found lacking. The historical back drop has become an increasingly neglected dimension in

the contemporary evolution of the discipline of economics.

If there is one glaring omission in the contemporary economic landscape it is the neglect and atrophy of all things historical. There is no denying that history is a social and economic resource. There is an urgent need to rediscover the value of economic history for future generations of economists. The latter half of the twentieth century in particular witnessed a marked devaluation in the appreciation of the professional benefits, rigorous appreciation and the value of a well grounded knowledge of economic history for economists. In many respects, economics cannot have universality without history. History is not static, it is fluid, and forms a bridge to the present and the future. Historical specificity places the complex story of humankind in a proper intellectual context. Economic history enables us to analyse and explain the concrete and historical specific dimensions of economic life. History and economics are in many respects complementary and inter-dependent with strong structural linkages. On the other hand, the history of economic thought introduces a critical and contextual appreciation to modern economic theory. In effect the history of economic thought provides us with the genetic topography and the DNA composition for the discipline of economics. In many respects the imprint of history defines the character of economics.

Despite the contemporary prominence of neoclassical economics, the current generation of economists are better versed in the “neo” component of their subject matter than the “classical” dimension. Indeed, most contemporary economists are illiterate in the history of economic thought and have not read Adam Smith, David Ricardo and John Maynard Keynes. All of whom made major contributions to the evolution of economic theory in the 18th, 19th and 20th centuries. In many respects, the contemporary generation of economists is practising their profession in an intellectual vacuum that is void of the significance of the history of economic ideas and the profound theoretical legacies of the economists of previous generations.

Baumol proposes that economic history should, once again, become a more prominent milestone on the economic landscape.

“It seems to me that many institutional areas lend themselves to study via historical materials, and in some it may not even be possible to carry out effective research without them. Besides, for those whose forte is not a high level of abstraction, history is apt to prove a very good source of ideas and is apt to contribute considerably to general understanding. It should also provide vital practice in the empirical analysis of messy and complicated problems of which economic history has an endless supply” (Baumol, 1991, 2).

The emphasis on quantitative economics in the latter half of the twentieth century cast a long shadow over the sub-discipline of economic history. In some cases it was exiled to history departments in the academy. There is no denying that economic history has been undervalued as a tool of economic analysis. I believe the intrinsic value of economic history will be rediscovered in the twenty-first century and like the prodigal son will make a triumphant return to the family of economics.

It is worth noting that economic history is not simply about the past, it is important for the present and the future. Indeed, history is a continuum from the past to the present and into the future. It illustrates the lessons of hindsight and prevents us from repeating the

errors of the past. It also serves to shed light on the present and helps us chart an enlightened course for the future.

Economic history is the record of collective memory for homo economicus. It is the context for contemporary economic issues and events. It is also a valuable tool for predicting the future evolution of economic science. Indeed, economic history can be a valuable analytical tool for a proactive approach that averts crises and defines new opportunities.

In the context of the new economy, economic history is the foundation stone for the new economic institutions of the 21st century and the fountain of human creativity which is a catalyst for structural change, innovation and the opening up of new frontiers. In this regard Buchanan wrote:

“...the subject matter of our discipline was, indeed, influenced strongly by the events of history, and, to some much lesser extent, these events were themselves influenced by the scientific inquiry of economists. But history, inclusively considered, also embodies technological change. And who could question the critical importance of the information processing revolution in shaping the very questions that economists ask and attempt to answer?” (Buchanan, 1991, 21).

Perhaps the most penetrating observation regarding the value of economic history was offered by Joseph A. Schumpeter. This is recorded in Schumpeter's last book, *History of Economic Analysis* published in 1954, four years after his death, from typescript and manuscript assembled by his wife. At the start of the book, Schumpeter emphasizes his eclectic view that the proper study of economics requires three elements: theory, statistics and history. In this book, his last testimonial, he places history on a special pedestal saying: “If, starting my work in economics afresh, I were told that I could study only one of the three but could have my choice, it would be economic history” (Schumpeter, 1954, 12).

Interdisciplinarity

Economics is the brain child of interdisciplinarity. By that I mean the discipline of political economy which was born in the 18th century with three intellectual parents, more specifically, Adam Smith, David Ricardo and John Stuart Mill, evolved and developed into three separate disciplines, viz, economics, political science and sociology. This by way of emphasizing that interdisciplinarity is not new for economics. It has a long and distinguished presence in the subject matter of economics. It is only recently, during the latter part of the 20th century, that economics has embraced a uniform direction towards increasingly more discipline specific and academically insular specialization. In part this is largely the result of breakthroughs in scientific discovery and the evolution of the scientific method in the Newtonian tradition, as well as the prominence of the industrial and information revolutions and more recently the embracing of technological and electronic advances which have enhanced the process of specialization and led to more focussed academic work.

I believe the 21st century will be a catalyst for a turn around in this discipline specific direction. In many respects the new century is on the cusp of a renaissance of interdisciplinarity that acknowledges the importance of interdependent variables and the intellectual interface of academic enquiry. I also believe that the early part of this century will witness an expansion of applied interdisciplinary studies and research which will move decidedly away from discipline concentrated specialization and create new disciplinary boundaries as well as crossing old disciplinary borders. We should not conclude from that that single-scholar discipline research will become extinct. That is not the case. Single discipline research will remain one of the cornerstones for the creation and dissemination of knowledge. Indeed this type of research will feed into modern interdisciplinary scholarship. This in recognition that there can be no real interdisciplinarity unless there are healthy and flourishing disciplines. Furthermore, there is a lot of work to be done on expanding disciplines i.e. developing and encouraging mutations and variations, as well as, the need to work on the contemporary problems that face society – in most cases in applied research. In short, interdisciplinarity should not exclude or diminish single discipline growth.

To my way of thinking there is a lesson to be drawn between interdisciplinary research and the changing structure of the workplace from a top down to a flat structure. This modern structure is conducive to team work and team effort which in turn is congruent with the new architecture of the global economy. Furthermore, academies of higher learning are primarily publicly funded research institutions with a mission and mandate to develop cutting edge scholarship and come to grips with current challenges and opportunities. These contemporary realities dictate an enhanced responsiveness to society's priorities on the part of the academic research agenda. In this context, it is imperative that academic institutions strive to facilitate the transfer of human knowledge and information developed in the academies into practical applications that benefit all of society. They should also take advantage of the opportunities to partner with public and private sector institutions, without diluting their academic integrity, in order to focus their research and contribute to the development of enlightened policies and practices in the social, cultural and economic sphere.

There is no denying the value of academic research which is community motivated and embraces a pragmatic dimension becomes a stepping stone for interactive development. It becomes in turn a catalyst for public education and progressive social change. In this context the synergies between interdisciplinary research and economic applications are significant. Furthermore, economics lends itself to an interdisciplinary mission and mandate with important contributions to the role and potential of civil society, the political infrastructure, the dynamics of institutional change and many other parameters of the new global economy.

The contemporary recognition of the important role of interdisciplinarity is a response to societal pressures on intellectual discourse and scholarship in general. It is pivotal in the context of relevance. In particular, in a pragmatic approach, society has now become more complex and multifaceted that it is rarely possible to understand it from within the boundaries of one discipline. Indeed, some many even say that applied single discipline research is becoming, in some areas, dysfunctional. In short, social, economic, political, demographic and cultural dimensions, to name but a few, are part of the contemporary setting of most academic issues. These are all interdependent variables. It is one of the tasks of interdisciplinary applied research to build intellectual bridges and close academic gaps. There is no denying that interdisciplinary research broadens one's

intellectual horizons, challenges one's perceptions, induces a sparkle of fascination, promotes constant new learning, and has pragmatic appeal and practical usefulness. It also goes a long way towards filling policy gaps of a social, economic, political and demographic dimension

Interdisciplinary work can be as far reaching as to encompass the humanities, social, educational, natural and health sciences or as narrow and focused as history and demography, and anything in between. It can be research accomplished in an entirely integrated manner, or it can be one's scholarly output is another's input, in as many different combinations and permutations as appropriate. It is worth noting the distinction between interdisciplinary, which is the passive cross-fertilization of ideas and metadisciplinary which is the more aggressive integration of the research agenda.

There is no denying that collaborative scholarship and applied research with a strong dose of pragmatism can explain and demonstrate the value of academic research to society and offer mature reflection on difficult issues. Interdisciplinarity facilitates thinking outside the box and can provide historical depth, cultural sensitivity, social context, policy focus, ethical implications, statistical inquiry and much more. The sine qua non of the interdisciplinary approach is the acknowledgement of disciplinary complementarity.

Interdisciplinary work requires constant collaboration, feedback and coordination, a constant exchange of ideas, and one final unified ultimate goal tied to a shared vision that ensures cohesion. Good interdisciplinary output should be coordinated, creative and reflect the interdisciplinarity of the research work. It should also be accessible, by that I mean, applied interdisciplinary research is about improving the world around us and making a better world for people from many walks of life. It is about the cross-fertilization of ideas, and about vision that reaches beyond the old narrow perceptions of the way things are. It is about communication, comprehension and sharing of one another's knowledge and wisdom for a useful purpose. It is about wanting to be understood and wanting to understand others, in other words facilitating the process of mutual comprehension. It cannot be confined to opaque language, elitist impenetrable theorizing, or hiding behind the complex obscure jargons of the specialist.

Increasingly during the 21st century, economists will be called upon to play a leading role in interdisciplinary research and studies. This is due to the central role that economic science will be asked to perform in many aspects of human endeavour. In particular, economics has a central role and a pivotal function in the multifaceted, multidimensional and over arching reach of this discipline between the humanities and the social sciences. Indeed, interdisciplinarity requires economists to be fully cognizant of diverse schools of thought within their own discipline as well as developments in other related disciplines such as the social sciences and humanities. This in addition to the emergence of new research frontiers and new academic disciplines which will require collaborative research endeavours, multidisciplinary and interdisciplinary research teams and path breaking pedagogical techniques in response to advances in computer science and information technology. Indeed, we can

anticipate that during the 21st century, a new disciplinary marriage will take place that will be consummated between economics and computer science. This will have important consequences in the academic discovery of domain specific knowledge and the dissemination of new ideas. Economics can be either central or supportive of an interdisciplinary research project. Enhancing the different perspectives around the table and contributing to the proper number of disciplines that constitute the required critical mass which contributes to academic synergy in an

appropriate manner. All of this will reflect the fundamental nature of the academic mission encompassing a shared vision and the complementarity of ideas.

I expect economics to play a central role in the modern phase of interdisciplinarity because of its aggregate, institutional and contemporary context. A case in point is the study of economic growth which constitutes a common thread that pervades economics. It is interdisciplinary par excellence and has inspired a voluminous and exciting economic literature. That being said, the sources of economic growth remain elusive and economic development such as sustained progress in economic well being as well as inter-country convergence remain a distant objective. That despite the most sophisticated econometric models applied in our persistent attempts to understand the machinery of economic development and what its contributing sources are. This work is mostly of the ex post genre and therefore unremarkable because it is the ex ante format that is likely to bestow the most significant intellectual rewards. So far the interdisciplinary nature of the modern literature on economic growth has given us preliminary blueprints to foster growth and development through investment in education, enlightened economic policy, international trade, investment reform, institutional modernization and financial liberalization. However, much more needs to be studied, researched and analyzed from an interdisciplinary perspective.

Quantitative Quagmire

The 21st century and the machinery of the new global economy will bring a greater recognition of the limitations associated with the extensive use of the mathematical approach in the study and application of economics. This is particularly true of economics with its central mission to enhance economic growth and development within a nation, within a region and among the international concert of nations. In addition economics is particularly susceptible to being influenced by collateral forces such as social, political, cultural and demographic variables.

The latter part of the 20th century witnessed a concerted effort to make the study of economics more of a science in an effort to upgrade its academic respectability. This was achieved by promoting the Newtonian approach developed for the hard sciences and embracing a rigid quantitative focus and application. Newton invented a scientific method which became the universal standard for scientific reasoning. In this respect, economics has attempted to mimic the hard sciences of physics, chemistry and biology.

Kenneth J. Arrow who shared the Nobel Prize in Economics in 1972 is widely regarded as one of the principal architects of the mathematical approach in modern economics. It also meant reinventing economic theories on the basis of assumptions and techniques developed by the University of Chicago school of economics and its founder Milton Friedman. These attempts have produced grand theories of economics supported by elegant mathematical models and empirical analysis that prima facie contain considerable scientific vigour.

There is no denying that a revolution has taken place in macroeconomic analysis in both the subject matter and the methods employed. “Old” macroeconomics, was principally about short-run stabilization policy, or how to smooth the business cycle. “New”

macroeconomics is principally about long-run growth theory. In addition the techniques required for the new approach (non-linear dynamic programming, overlapping generations models, computable general equilibrium, vector auto regression estimation) are ones that were typically not used in the older approach.

At the same time, the quantitative focus has been criticized as being falsely scientific with no role for human intentionality or choice. It has been described as understating the potential downside to the inculcation and acceptance of economic language, assumptions and theory. It has also been suggested that these attempts have resulted in simplistic models of individual human behaviour in the genre of rational, self-interested, utility maximizing homo-economicus. Indeed, Arrow emphasizes that the extensive reach of modern neoclassical economics has transformed basic economic concepts such as rational choice and profit maximization among others into parameters with different mutations and more diverse interpretations. Furthermore, mathematics is not conducive to incorporating the social dimension of economic issues. The quantitative approach has made economics more model driven and hence less responsive to social issues that have an implicit qualitative focus and rigour. Mathematical formulation requires a degree of abstraction and technical rigidity that in consequence has contributed to the fact that the contemporary pedigree of economic models bear little resemblance to the real world or reflect the economic passion for developing a road map towards achieving the eternal human ambition for economic prosperity, improving the quality of life and personal fulfillment. In short, economists have become so fascinated and awed with the mathematical application that they have lost sight of the fundamental mission and mandate of economics.

In many respects the founding fathers of modern economics had a visionary insight into the role and mandate of economics. Indeed it was an intellectual vision that has stood the test of time and placed the use of mathematics within the appropriate boundaries. It is worth noting that Alfred Marshall, one of the founders of the Royal Economic Society, put the role of mathematics in economics in its proper perspective:

“I know I had a growing feeling in the later years of my work at the subject that a good mathematical theorem dealing with economic hypotheses was very unlikely to be good economics: and I went more and more on the rules – (1) Use mathematics as a shorthand language, rather than as an engine of inquiry. (2) Keep to them till you have done. (3) Translate into English. (4) Then illustrate by examples that are important in real life. (5) Burn the mathematics. (6) If you can't succeed in 4, burn 3. This last I did often.

I believe in Newton's Principia Methods, because they carry so much of the ordinary mind with them. Mathematics used in a Fellowship thesis by a man who is not a mathematician by nature – and I have come across a good deal of that – seems to me an unmixed evil. And I think you should do all you can to prevent people from using Mathematics in cases in which the English Language is as short as the Mathematical

I find mathematicians almost invariably follow what I regard as Jevons' one great analytical mistake, his eulogy of the Geometric mean in general: and do not see that, according to his use, erroneous weighting may do far more mischief with the Geometric Mean than with the Arithmetic Mean. I always have to spend some time in convincing them of the danger.”
(Pigou, 1925, 427-428)

Nobel laureate Milton Friedman articulates the historical context for the adoption of the quantitative approach in economics in the following manner:

“A century after Adam Smith came the marginal revolution and explicit general equilibrium analysis, bringing the first major expansion in the use of mathematics in economic analysis. Marshall became the authority, at least for English-speaking economists, and Walras and Pareto for mathematical-speaking economists. Another half century, and the Keynesian revolution changed the language and tools with which economists analysed the aggregate economy, though it changed their substantive conclusions about the aggregate economy to a much lesser extent. More recently, the theory of games and the computer revolution, both linked with the name of John von Neumann, changed the language of discourse and the tools of analysis even more drastically.” (Friedman, 1991, 37)

Friedman was not a forceful proponent of the quantitative approach. He captured the essence of the quantitative dimension in economics in the following paragraph:

“One major conclusion emerges from browsing through past **Economic Journals** as a prelude to peering into the next century: the substance of professional economic discussion has remained remarkably unchanged over the past century while at the same time the language in which economic analysis is presented has changed so drastically that few economists who contributed to the early volumes would have been able to read most articles in recent volumes. In addition, the scope of economic literature has narrowed in some dimensions, widened in others.” (Friedman, 1991, 33)

He goes on to say:

“A similar criticism applies to the extensive use of mathematics, which again has greatly extended the power of economic analysis, but is often used to impress rather than inform. Results that might have been attainable only by sophisticated mathematics can nonetheless be explained in understandable English. Again and again, I have read articles written primarily in mathematics, in which the central conclusions and reasoning could readily have been restated in English, and the mathematics relegated to an appendix, making the article far more accessible to the reader.” (Friedman, 1991, 36)

In his seminal article entitled “Toward a Newer Economics”, William Baumol underlines that:

“There can hardly be any argument with the proposition that the use of mathematical methods has not solved all problems in economic analysis, and that some problems lend themselves more readily to statistical, experimental, historical or other lines of attack. While formal mathematical theory has made invaluable contributions in fields where its success might have caused

considerable surprise in an earlier day – fields such as public finance and industrial organisation – each of these areas surely still leaves considerable scope for other research procedures. And there are still other areas, for example, labour economics, in which this is probably even truer. The trouble is that if individuals are not respected for the pursuit of alternative approaches, if only those whose writings are pockmarked by algebraic symbols receive kudos, one can expect a misallocation of resources like that which always results from a distortion of relative prices.” (Baumol, 1991, 2)

In regard to the modern quantitative approach Baumol concludes that:

“I am hoping that the future will bring some decrease in the display of technique for its own sake, with models constructed so as to increase what they tell us about the workings of the economy rather than just displaying the properties of some analytical procedure. This is not repetition of the ancient and tired demand for enhancement of the ‘realism’ of our models, for it is perfectly clear that there is a trade off between the analytic tractability of a model and the degree to which it incorporates the complex minutiae of reality, and that this trade off often does not favour the latter. The desire for economic pertinence of our constructs is *not* tantamount to a wish for unworkable complication. The contrary is apt to be closer to the truth.” (Baumol, 1991, 6)

The upgrading of the discipline of economics through enhanced scientific rigour has had some serious negative side effects especially in terms of the contemporary realities of the new global economy. Indeed, the technical progression of economics has created barriers to political and social concerns and has emphasized the abstract to the detriment of the pragmatic. Economists cannot dismiss or assume indifference to the pragmatic reality of the political context and its social, cultural and human parameters. In other words, the quantitative approach has led to the adoption of simplistic assumptions and quantitative rigour has resulted in severe constraints in coming to grips with the real world economic issues. All of this resulting in a more abstract and simplistic economic modelling. Furthermore, it is worth noting that in 1998 the Committee on Journals of the American Economic Association reported that leading publications in the economics profession had too much theory and mathematics and too little empiricism, policy and history.

It is a sad commentary that despite the complicated mathematical modelling of contemporary economics it remains a simplistic and highly specialized attempt in as much as it fails to take a holistic approach that would include the elements of the political, social, psychological, moral and historical parameters. In short, two dimensional models that attempt to be scientific and rigorous often end up trading off the real world and a dose of realism and pragmatism. All of this brings into question the degree to which abstraction necessitated by mathematical rigour has resulted in a marked decline in the pertinence of economics. There seems to be a need for a broader vision from econometric technicians (the economic version of statistics known as econometrics) to become more inclusive of the qualitative variables that embrace the economic issues of the 21st century.

There is no denying that the enhanced processing power of computers has captured

and promoted the quantitative focus of economics. In this scenario the social and political dimensions are excluded from enabling an analysis of the real world. In fact these altered realities are adversely defining the boundaries regarding the intellectual discourse affecting the real world of the 21st century.

In an incisive recent article Warren Gibson concludes:

“Mathematics can be very alluring. Professional mathematicians speak frequently of ‘beauty’ and ‘elegance’ in their work. Some say that the central mystery of our universe is its governance by universal mathematical laws. Practitioners of applied math likewise feel special satisfaction when a well-crafted simulation successfully predicts real-world physical behaviour. But while the mathematicians, some of them at least, are explicit about doing math for its own sake, engineers are hired to produce results and economists should be, too. It’s fine if a few specialists labor at the outer mathematical edge of these fields, but the real needs and real satisfactions are to be found in applications.

Western civilization has brought us an explosion of human welfare: prosperity, longevity, education, the arts, and so on. We very much need the wisdom that economists can offer us to help understand and sustain this remarkable record. What good are engineers’ accomplishments in crash simulations if the benefits are denied to the world by trade barriers, stifling regulation, congested highways, or bogus global warming restrictions? What can mathematical economics contribute to such vital issues? Not much, if Deirdre McCloskey is right when she says, ‘economics has learned practically nothing from the dual triumph of mathematical economics and econometrics.’ What if, as she says, ‘The best minds in economics have been diverted into an intellectual game, I say, with as much practical payoff as chess problems’ (McCloskey 2000, 217). What if real answers to urgent problems could be delivered in plain English? Do economists have the courage to shun the romance of mathematics and produce such answers? Let us hope so.” (Gibson, 2005, 156-157)

The quagmire between contemporary relevance and scientific rigour is likely to be resolved by adopting an intellectual compromise. Mathematical sophistication and rigidity must be tempered in order to embrace the qualitative dimension of contemporary economic issues. This will undoubtedly enhance the role that economists will play in the 21st century by becoming more relevant and responsive to economic, social and cultural public policy issues.

At the end of the day, one of the central issues regarding the adoption of the quantitative approach is not how much mathematics to use and how often but rather what kind in order to avert coming to conclusions that do not reflect the contemporary and pragmatic nature of the economy and society. In doing so, a determined effort must be applied to avoid constructing a boxed in model that ultimately bears little resemblance to the real world. This can easily be resolved by concentrating on defining the economic parameters of an issue first of all and then proceeding to incorporate that form of

mathematics that may be applied in order to solve it. It is worth noting that it is not entirely coincidental that the founding father of modern day macroeconomics, John Maynard Keynes, who was well versed in mathematics hardly used this medium

Conclusion

In the preceding pages we explored the new frontiers and the evolving transformation of economics in the 21st century. The context of this transformation is dictated by the realities of the new global economy. The trajectory for the evolution of economics in the 21st century will be determined within the parameters of the new global economy. Indeed, economics in the 21st century will design the architecture and build a link between microeconomics and macroeconomics in the context of the new global economy and within the theoretical framework of Schumpeterian analysis.

The new economy is comprised of a trilogy of interactive forces that include globalization, trade liberalization and the information technology and communications revolution. Globalization has melted national borders and redefined economic policy. Free trade has enhanced economic integration and extended the economic architecture. The information and communications revolution has made geography and time irrelevant and enhanced the reach of economic parameters.

The 21st century will lead to a rediscovery of Schumpeterian theory. The advent of the information technology revolution and the important role of innovation in contributing to the economic wealth of nations in the new economy of the twenty-first century is forcing economists to rediscover the important academic contributions of Joseph Schumpeter. The economic profile of the new global economy has been driven by technology, fuelled by innovation and entrepreneurial initiative and based on new ideas, new perspectives and new business strategies. Indeed, the pivotal role that Schumpeter assigned to entrepreneurship and innovation will underline the relevance of his economic theories and intellectual vision for the new global economy. At the same time the new economy has altered the economic landscape and realigned the linkages between different sectors of the economy. In short, Schumpeter's legacy of technological innovation and entrepreneurial initiative is alive and well in the new global economy of the 21st century. In addition, Schumpeter's theoretical framework will become the catalyst for linking microeconomic foundations with macroeconomic theory.

The new economy has markedly transformed the structural parameters of the economic landscape and contracted the prism for time and space. Schumpeter's economic theories are contributing to our understanding of the factors facilitating the wealth of nations and the process by which economic growth can be accelerated within the evolving structural parameters of the new economy. In Schumpeter's conceptual framework, the process of structural change is propelled by industrial activity. The process of "creative destruction" is accomplished through innovation. Furthermore, innovation is what determines the value of entrepreneurship to economic society. Schumpeter articulated a pivotal role for the entrepreneur in contributing to economic growth and the wealth of nations.

The information technology revolution has profoundly altered the structural parameters and the modus operandi of most national economies. Indeed, the transformation from the industrial age to the information age has resulted in the restructuring of the economic system. There is no denying the importance of technological innovation as the economic heartbeat that propels economic growth and development in the new global economy. Furthermore, it also confirms that at the dawn of the twenty-first century, Schumpeter's intellectual and theoretical legacy on the pivotal role of technological innovation remains a vibrant analysis and laudable framework for determining the causal factors that promote economic prosperity and contribute to the wealth of nations.

The new global economy will influence in a profound and indelible manner the scope and substance of economics in the 21st century. It will also define the role that economists will play in the context of the structural transformation of the academic landscape and the emerging new institutional architecture. Alternative economic approaches will become more prominent. This transformation of economics during the 21st century will lead to the rediscovery of the value of institutional economic history and the history of economic thought. It will contribute to resolving the confrontation and the dichotomy between the quantitative school and the qualitative approach. It will also highlight the distinctive role that economics will play in the resurgence of interdisciplinarity and the emergence of new disciplinary synergies.

BIBLIOGRAPHY

Archibugi, D. Howells, J. and Michie, J. eds. (1999), **Innovation Policy in a Global Economy**, Cambridge: Cambridge University Press.

Archibugi, D. and Michie, J. eds. (1997). **Technology, Globalization and Economic Performance**, Cambridge: Cambridge University Press.

Baumol, William J. (1991). "Toward a Newer Economics: The Future Lies Ahead!", **The Economic Journal**, vol. 101, issue 404, pp. 1-8.

Bernstein, Michael A. (2001). **A Perilous Progress: Economists and Public Purpose in Twentieth-Century America**, Princeton University Press.

Buchanan, James M. (1991). "Economics in the Post-Socialist Century", **The Economic Journal**, vol. 101, Issue 404, pp. 15-21.

Cullenberg, Stephen, Amariglio, Jack and Ruccio, David F. (2001). **Post- Modernism, Economics and Knowledge**, New York: Routledge.

Friedman, Milton (1991). "Old Wine in New Bottles", **The Economic Journal**, vol. 101, issue 404, pp. 33-40.

Fullbrook, Edward (2003). **The Crisis in Economics**, New York: Routledge.

Fullbrook, Edward, ed (2001). **Intersubjectivity in Economics: Agents and Structures**, New York: Routledge.

Gibson, Warren C. (2005). "The Mathematical Romance: An Engineer's View of Mathematical Economics," **Economic Journal Watch**, vol. 2, number 1, pp. 149-158.

Goodwin, Neva R., Nelson, Julie, Ackerman and Weisskopf, Thomas (2004). **Microeconomics in Context**, Boston: Houghton Mifflin.

Hodgson, Geoffrey Martin (2001). **How Economics Forgot History**, New York; Routledge.

Keen, Steven (2001). **Debunking Economics: The Naked Emperor of Sciences**, New York: Zed Books. the Social

Landes, David S. (1969). **The Unbound Prometheus: Technological Industrial Development in Western Europe from 1750 to** Change and the Present, Cambridge: Cambridge University Press.

Lawson, Tony (1997). **Economics and Reality**, New York: Routledge.

McCloskey, Deirdre N. (2000). **How to be Human Though an Economist**, Ann Arbor, MI: University of Michigan.

McCloskey, Deirdre N. (1998). **The Rhetoric of Economics**, University of Wisconsin Press, 2nd Edition.

McCloskey, Deirdre N. (1996). **The Vices of Economists, the Virtues of the Bourgeoisie**, Amsterdam University Press.

McCraw, Thomas K. (1991). "Schumpeter Ascending", **American Scholar**, vol. 60, no. 3, pp. 371-393.

McDaniel, Bruce A. (2000). "A Survey on Entrepreneurship and Innovation", **Social Science Journal**, vol. 37, issue 2, pp. 277-285.

McFarling, Bruce (2000). "Schumpeter's Entrepreneurs and Commons's Sovereign Authority", **Journal of Economic Issues**, vol. 34, issue 3, pp. 707-723.

Mirowski, Philip (2002). **Machine Dreams: Economics Becomes a Cyborg Science**, Cambridge University Press.

Nelson, Robert H. and Stackhouse, Max L. (2001). **Economics as a Religion: From Samuelson to Chicago and Beyond**, Penn State University Press.

Orati, V. and Dahiya, S.B. eds (2001). **Economic Theory in the Light of**

Schumpeter's Scientific Heritage, Rohtak: Spellbound Publications.

Passaris, Constantine E. (2001). "Schumpeter's Legacy of Technological Innovation in the Context of the Twenty-First Century" in **Economic Theory in the Light of Schumpeter's Scientific Heritage**, vol. 2 V. Orati and S.B. Dahiya (eds). Rohtak: Spellbound Publications, pp. 349-361.

Passaris, Constantine E. (2003). "**Schumpeter and Globalization: Innovation and Entrepreneurship in the New Economy**", Fifth Annual International Schumpeter Lecture, Viterbo (Italy): International Institute of Advanced Economic and Social Studies.

Pigou, A.C. (ed.) (1925). **Memorials of Alfred Marshall**. London: Macmillan.

Schumpeter, Joseph A. (1908). **Das Wesen und de Hauptinhalt der theoretischen Nationalökonomie**, Munich: Dunker and Humblot.

Schumpeter, Joseph A. (1912). **The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle**, Cambridge: Harvard University Press.

Schumpeter, Joseph A. (1914). **Economic Doctrine and Method**, London: Allen and Unwin.

Schumpeter, Joseph A. (1928). "The instability of capitalism", in Clemence, R.V. (ed.) (1989) **Joseph A. Schumpeter: Essays on Entrepreneurs, Innovations, Business Cycles and the Evolution of Capitalism**, New Brunswick, New Jersey: Transaction Publishers.

Schumpeter, Joseph A. (1934). "Depressions: can we learn from past experience?" in Clemence, R.V. (ed.) (1951) **Essays of J.A. Schumpeter**, Cambridge, Mass.: Addison-Wesley, pp. 108-117.

Schumpeter, Joseph A. (1935). "The analysis of economic change", **Review of Economics and Statistics**, 17, pp. 2-10.

Schumpeter, Joseph A. (1939). **Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process**, New York: McGraw Hill.

Schumpeter, Joseph A. (1942). **Capitalism, Socialism and Democracy**, London: Allen and Unwin.

Schumpeter, Joseph A. (1951). **Ten Great Economists: From Marx to Keynes**, London: Allen and Unwin.

Schumpeter, Joseph A. (1954). **History of Economic Analysis**, London: Allen and Unwin.

Weintraub, E. Roy (2002). **How Economics Became a Mathematical Science**, Durham: Duke University Press.

LIBERALS AND LIBERALISM

«Italy, Europe, and Globalisation: is there an alternative to free trade?» is the subject of this international conference, setting a framework for discussion. The question itself seems to have been framed polemically. Is it not simply blasphemous, according to authorised economic doctrine, to even ask whether there is an alternative to «free trade»? If we are to go by the peremptory assertions of its titular functionaries, reiterated and repeated constantly, in the context of an ongoing mass-media bombardment, by statesmen, officialdom and politicians, it is. «Free trade» and consequently «perfect competition» are presented as unavoidable facts, valid and insuperable, con-substantial with «globalisation»; they are at the same time infallible cures for every ill.

I am not however, going to take up your time repeating Prof. Orati's scientifically founded critical analysis¹, in which he *demonstrates* the lack of all scientific basis for the assertions of the praise-singers of «globalisation» and «free trade», and debunks their claims to validity. I agree completely with everything he says, and there would be little point in my simply repeating views that I could not express with the same talent.

I would like simply to point out that the «globalisation» that is being put across as a brand-new development is in fact a mere fable, a myth and a fetish. It is the extension to the fields of economics and politics (and consequently also to that of culture) of a situation which arose before the birth of industrial capitalism proper, and was indeed a decisive factor in its emergence. «globalisation» dates back to the early 16th century and the era of the “great geographical discoveries” (i.e. the formation of European colonial empires and of the first world market to span seas and oceans). It existed before the birth of the industrial mode of production and well before the geometrical progression of this mode, which began at the end of the 18th century, went on throughout the 19th, and culminated during the 20th, embracing the planet as a whole, and weaving itself inextricably into the development of the capitalism. «Globalisation» was thus intimately involved in all the *mutations* of this mode of production. The capitalism of small enterprises competing relatively freely was superseded by the concentrated production and centralised finance characteristic of monopoly (or oligopoly) capitalism; this gave way in its turn to a form of capitalism involving *direct* state intervention, combined and interwoven with the emergence of multinational corporations et trans-national capital. Thanks to a system of internal stratification, each new phase prolonged the preceding one - subsuming and subordinating it rather than pulling it along passively. This historical process is blithely ignored by mainstream economics in its all-embracing amnesia; it continues to “reason” as though production and circulation were

¹ Without overlooking the critical analysis of current dominant economic theories that Prof. Orati has been carrying out for as long as I can remember – the premisses of and basis for his current thinking – I refer here in particular to his latest work, *Globalizzazione scientificamente infondata* (Rome, Editori Riuniti, 2003), to his articles published in 2005 and 2006 in the review «Il Ponte»: *Infondatezza delle politiche di deregulation e antitrust*, *Fallacia logica e miti da sfatare*, *Ancora sull'infondatezza di deregulation e antitrust*, and to his *Introduction* to the second edition of *Globalizzazione scientificamente infondata*, which I have had the privilege of reading in advance of publication.

taking place in a world of small independent producers and distributors or – as Prof. Orati puts it – of so many Robinson Crusoes².

Thus the situation as we know it today is merely the current phase of this overall development – the phase that began in the 1880s – modified by subsequent economic and political internationalisation based on broad application to the technology of production of a recent scientific discovery: computer science (1946), transforming production, distribution and communication (which it has made practically simultaneous). The «neoliberalism» launched in this historical context – is in fact nothing more than “old” liberalism re-heated. This is why I have kept the traditional name in the title of my contribution. Old liberalism, in which nonetheless State intervention is being unabatedly pursued, and which is identifying throughout the world spaces and places in which capitalism can be imposed and operate *directly*³. This preaching and practice of «free trade», with a view to attaining the suppositious “ideal” of «perfect competition», masks the true nature of current «globalisation»: i. e. the further internationalisation of the economy (and incidentally of politics), and the massive intervention of government and political power in economic affairs. Production has been internationalised a good deal less than trade flows; trade flows now total more than income creation, and are in turn easily surpassed by the movement of financial and speculative investments. This supposedly “free” market is dominated by big trans-national capital and the multinational majors (American, European, Japanese, etc.); «perfect competition» boils down to allowing financial and speculative investment to move about as it pleases, and to localise, de-localise and relocate unhindered.

The real consequences of this new set-up are obvious to anyone who has eyes to see. The global economy, far from developing, is now in a state of *permanent crisis*. The basic trend is not towards innovation, but its opposite, *stagnation*, with delocalisation and de-industrialisation – demurely referred to as the «post-industrial economy» – bringing about wholesale destruction of productive tissue, and turning entire regions into deserts. Far from overcoming under-development, it is perpetuating its spread⁴. The «third» and «fourth» worlds, an oceanic space inhabited by three billion people – half the population of the planet – has been relegated to a condition of *redundancy*, eking out its existence in «extreme poverty»⁵. Not to speak of the *state of permanent war* induced by these “globalised” arrangements. As in «free trade», the strong impose their will and as in «perfect competition» the most competitive of the competitors comes out on top, the major powers are

² And, faced with the realities of the multinationals and of trans-national capital, not to speak of State intervention, “economic science” scarcely devotes any attention to them, and when it does, it is only to deprecate monopolies and government meddling and to endorse deregulatory and anti-trust measures, in the spirit of «perfect competition» between small isolated producers. A mode of existence that is exalted even in the terminology: see e. g. the habit of treating all organisations and activities (from health services to entire countries) as so many “enterprises” («azienda Italia»: «Italy, Inc.»), with all activity being entrusted to «managerial expertise» – even in the fields of education and vocational training, to which commercial and banking criteria are now being applied, all performance being assessed in terms of «debit» and «credit»!⁴ The overriding trend towards stagnation, the ruinous results of de-localisation, and the decline of interest in “underdevelopment” (which is even seen as functional in maintaining itself) have been shown cogently by Prof. Orati (see publications listed above).⁵ Source Uno, 2005.

«more equal than others», with the unique superpower being «most equal of all»⁶, imposing a vicious circle of regression by enforcing the imperatives of grand capital – «free trade» and «perfect competition».

In adopting Prof. Orati's interpretation, I have also adopted its implications. These are far-reaching, and are fraught with meaning for the situation we are in today. I am referring here to what Prof. Orati has called «enlightened protectionism»: an economic programme aimed at reasonable *development* (to be distinguished from mere *growth*) – a programme that could only exist if it were adequately protected; it would be linked to foreign trade *agreements* that would not simply perpetuate the current economic situation and pursue prevailing policies, which are intensifying exploitation and exclusion in a spiral of barbarity, misery and bloodshed.

Moreover, the slogans accompanying «globalisation» and its various appendices, «free trade», «perfect competition», *anti-trust* and *deregulation*, presumptive corollaries of an imaginary «theorem», all function as blocking mechanisms, enforcing submission to big trans-national and multinational capital, by stopping the intervention of «public» authorities (governmental and institutional) or reversing it; the US, acting through international organisations (such as the World Bank, Imf, Wto, etc.) in which it carries most weight, forces «free trade» on the rest of the world at the same time as shielding its own economy with protectionist measures and government support (in the form not of welfare measures, but above all of massive military spending). This is also in substance the policy pursued by countries such as France which, as recent developments have shown, is determined to keep control of its own strategic electricity production, and maintains a noteworthy level of government intervention. Much the same could be said of Spain, despite its adhesion to the doctrine of «free markets» and its vocal denunciation of «protectionism». The European Union itself, which puts itself across as a citadel of liberalism, operates in fact above all as a monetary, banking and financial union linked to big European trans-national and multinational capital, directed by the elites of the member-countries, freed from all *effective* control (the Euro-parliament being a negligible quantity); it is now in a state of crisis, following rejection by France and the Netherlands of the markedly liberal Constitutional Treaty, and has been forced willy-nilly to take measures to prevent dumping (in the present case, of Chinese and Vietnamese imports). Nonetheless it continues mechanically to denounce the «dangers of protectionism», and is thus restricting the «free market» in the name of «free trade»...⁷! Or vice versa? Though still limited to a particular situation, this development no doubt indicates a trend.

Thus unquestionably an alternative to «free trade» exists. It should now be understood, publicised and put into practice. This task is urgent. Disaster is no longer simply imminent; it is already taking place. If it is not checked, it will take on unimaginable proportions; its consequences will be incalculable.

Current trends are perfectly clear in this respect. The planetary system overrides all others, and the economic role of «advanced» (i. e. «developed») countries is decisive, as the

⁶ Cf. G. Orwell, *Animal Farm* (1945). ⁷ In his classic *Laughter (Le Rire, essai sur la signification du comique, 1899 and 1924)* the French philosopher Henri Bergson defines the comic as «the mechanical imposed upon the living».

current innovation, based on computer technology, has taken the form of *time saving* and *labour saving*. This in itself should normally entail a potential growth of production at constant costs; but growth is not taking place. Internal markets, when not shrinking, are no longer expanding (or are doing both), as a result of the contraction of internal demand linked to the rising unemployment brought about by delocalisation and de-industrialisation. With internal markets stagnant or shrinking, *all* “competitors” without exception are now falling back on international markets. On these, the only variable on which they can act is production costs. All of this being the case, the inevitable result is stagnation – with *illusory* recoveries arising out of mere fluctuations (as in the US and Germany), combined with either *growth without a rise in employment* (so that internal growth potential is not actuated), or *a rise in employment without a corresponding increase in income* (or with a lower rate of employment, giving rise to comparable problems). Under conditions such as these, the only variable making it possible to compete on international markets is a progressive reduction of labour costs, which are now tending towards the minimal subsistence levels encountered in countries such as India and China. Paradoxically, however, even a reduction of this sort would not suffice, as it would still not solve the problem of demand and of internal growth. Can it really be envisaged? It would be disastrous not only for the economy, but also for society, culture, civilisation and democracy. The degree of conflict resulting from any attempt to put it into practice can hardly be imagined.

What liberalism advocates is thus simply a *disaster*; the liberal doctrine masks, expresses and furthers this disaster at one and the same time. Manoeuvres are made in secret, under cover of official liberal doctrine: moves of power, moves unrelated to it, corresponding to no clear aim, but always moves stemming from the political Right and furthered by it.

Clearly, this is no mere academic issue. We would be well advised to bear this in mind. The field of theory and the struggles that take place within it – inevitable, indispensable, and all the more so in this particular matter and in the current situation – are never and can never be “innocuous”.

I would like now, however, to put to you (and to ask myself) another question. What is it that makes the “officialdom” of economics so obstinate in its defence of globalised «free trade» and the concomitant *deregulation* and *anti-trust* policies? What is the meaning of this closure of mind, and why is it maintained with such tenacity, worthy of a better cause?

Personally, I have taken part in public debates – in some cases together with Prof. Orati – in which academics and other (more or less “distinguished”) “experts”, faced with conscientious and rigorously reasoned objections, have responded, not with arguments, but by simply reciting the official tenets of mainstream economic “science”, mere assertions that they repeat as mantras like answering machines, sometimes adding stereotyped explanations, obsolete and insensitive to context. I have had to sit through speeches by institutional dignitaries and political leaders repeating debatable assertions as if they were proven fact, making no effort to understand objectors’ arguments and rejecting them out of hand. In private conversations I have heard laughable assertions made by people with straight

faces. Argument to the effect that the official constructs of economics and «free trade» are not scientific is countered with the assurances that “the award of the Nobel Prize guarantees that these theories are scientific” – as though the Nobel were some sort of Oscar⁸ consecrating a celebrity, and as though it were miraculously immune the influence of the powerful lobbies that were so active, e. g., in the case of Milton Friedman and the Chicago Boys. I have not only read, but actually seen with my own eyes and heard with my own ears professions of *faith*, recitations of *creeds*: “I believe in the virtues of free markets and perfect competition, as competition is a natural drive, and organic part of all human beings; it is a force for good that must be asserted without restriction in order to solve the many problems that beset

humanity”⁹ ... Religious alienation – an indubitable historical fact – is unfortunately not confined to denominational beliefs. Here we have a supposedly secular discipline secreting a faith put forward, apparently, as the transcendent “foundation” of a “science”: an undemonstrated and indemonstrable assumption, in the manner of theology.

There is, however, more to it than this. The conception of «globalisation» as some sort of transcendent being, and of its corollaries («free trade», «perfect competition», *deregulation* and *anti-trust* measures) as universal duties seems to have penetrated and permeated the very people and political forces that in principle should be opposing them. Bereft of plausible reasons, these oblivious opponents proclaim their faith even more emphatically and in even more absolute terms. The less one takes account of the core problem of production and its organisation rather than distribution, with demands for the assurance of income, seen in terms of civil rights¹⁰. An exception is made in the case of «public assets» such as water; but these are treated as legal questions (social and civil rights) rather than as a means of changing the orientation of the economy. Not that civil rights are unimportant; on the contrary, they are highly important, and to broaden them is to develop civilisation. But can this be done when the economy is falling apart? When the main thrust is towards the compression and reduction of the “cost of labour” (in terms of wages and salaries, flexibility, job-insecurity etc.), and the trend is towards stagnation, with entire regions being drained of productive activity and population?

Rhetorical questions, no doubt ... If the very way the question is raised already presupposes subordination, steering clear of the central nexus, the problem will obviously not be solved. The field will be left open to other sorts of intervention, to haphazard and inconsequential measures, applied to the ruins left by the resultant disasters¹¹ – economic, social, political and cultural – leaving the situation even more intractable than before.

⁸ The Oscar itself certifies only the “commercial” value of the films for which it is awarded, and is subject to intense pressure from interest groups. It should be remembered that this supposedly permanent human nature is not only a metaphysical notion, but also reactionary, barbarous one, exalting power relationships. It fails to take account of the primary characteristic of humanity: man is first and foremost a social animal; without alliances, i. e. collaboration and cooperation, which have occurred constantly in the course of history, nothing would ever have been accomplished.¹⁰ The best that these forces have been able to come up with is to propose a partial return to Keynes’ line of thought. However, there are some confused proponents who casually combine Sraffa’s thinking or that of mainstream marginalism, with some form of «public intervention», and so forth.¹¹ There also emerges, unfortunately, a dark underlying tendency in the very forces that should be dealing with the central nexus but are unready, unwilling, or unable to come to terms with it. The tendency is to displace it (once again, a delocalisation ...) to the field of civil rights. It is nonetheless possible (though by no

To sum up, how has this deep-seated influence of economic liberalism come to be? What does it tell us about the overwhelming majority of the “personnel” of economics? They remind one uncomfortably of those Aristotelians who refused to look through Galileo’s telescope, for fear of seeing their cherished beliefs destabilised. How did this liberal catechism come to be imposed by the “authorities” (of institutional knowledge, of the State, of mass media, etc.) and accepted as gospel truth? How did this ignorance come about and spread, this blindness, this *obscurantism* ...? What does it all add up to? What does it mean?

The *laissez faire* doctrine originated in France during the Enlightenment, when the Physiocrats contested the crushing burdens imposed on the French peasantry and agricultural economy by absolutist rule to finance its power policies. Anyone even slightly conversant with economic history and the history of economic thought or even with general history knows this. The doctrine was subsequently adopted by Adam Smith, in analogous terms. Later, when the emergent «industrial revolution» had given Britain – thanks to protectionism and revenue from the British Empire – a decisive lead in technology, Ricardo championed «free trade». Britain’s economic development now had different requirements: its main need was a drastic cut in the cost of labour – whence the battle for the abolition of protectionism. At the time, cereals were the basic foodstuff, and wages were on a downward trend, falling towards subsistence level; cost cutting could thus be achieved by importing foreign grain, which was cheaper than that grown in Britain, where agricultural prices were kept relatively high by the extraction of land rent. Ricardo’s theorisation of «costs» and «comparative advantages», however, did not take account of one particular advantage which was not merely comparative, but *absolute*: the technological level from which each competitor started out. Nor did Ricardo mention differences in the political power and influence of each competitor’s country, the strength of its State or empire. Subsequently the «industrial revolution» came to the Continent. If it had not come, Europe would have become a British colony or quasi-colony. This was not to come about, thanks to the prolonged resistance of France, but above all thanks to the economic policies adopted by the States of Europe, and in particular to protectionism. During subsequent developments, protectionist phases corresponded to increases in capitalist growth, whereas concessions to «free trade» intensified competition and rivalries. Subsequently, during the transition to the monopolistic (or oligopoly) phase of capitalism (an inevitable development brought about by the deployment of capitalism and its crises), when the central problem became that of defending and expanding the interests of each capitalist-monopolistic State, the doctrine of «free trade» no longer made any sense and was set aside.

Liberal discourse ignores these historical realities and hides them; it hides the transformations that capitalism has undergone, just as it hides the role played by the State since the very beginning of the current mode of production.

means easy) to obtain the distribution of a certain proportion of the social surplus by leaving intact the structure that caters for liberal competition, and have the State support this, at the same time as maintaining the internal situation and the action on global level that this manoeuvre implies. Once this has been done, it is possible to make declarations and allow or arrange demonstrations in favour of peace and against poverty, against the spiralling barbarity of behaviour and of culture in the world at large and in the country itself. This will merely cover up and justify the «present state of things».

Again, however, there is still more to be said. Current liberalism is in fact no more than a recycled version of the so-called «neo-classical» economic doctrine that, given its basically utilitarian concepts, could more aptly be described as «marginalist»; it has developed since the end of the 19th century. Only intentional occultation could have led to its disregard for the fact that right from the very beginning of investigation into the economy, two different “lines” of thinking and analysis emerge. One of these starts out from production, and thus from the production of a *surplus*; it stands out clearly already in Plato. The other focuses on distribution and circulation; it emerges in Aristotle. In more recent times the two lines of thought have locked in conflict and interpenetrated, with the former eventually gaining precedence in the thought of the Physiocrats, Smith and Ricardo: the line of «labour value», subsequently adopted and submitted to critical scrutiny by Marx. Led to its logical conclusions, it opened on to and constructed the possibility of moving beyond the existing mode of production, no longer seen confusedly as a sort of eternal capitalism, but grasped in its historical reality, as a relatively *recent* historical development, that took shape during the transition from the Middle Ages to modernity.

It is precisely this “line” that the so-called «classical school» of economics combats, taking up the objections raised to Smith and above all to Ricardo in their own time, and resuming the line of thought focused on distribution, circulation and exchange. This school of thought emerged during the 1870s, with definite political intentions: a political and cultural battle was under way. This is made perfectly plain by Walras, the initial and most eminent of the founding fathers of the theory of «general economic equilibrium»: by his own admission, his decision to elaborate the theory sprang from his determination to “oppose the socialists”. «Free trade» was seen as a cure-all, and «perfect competition» as a cardinal virtue. This was proclaimed, as it happens, at the very time when the main sectors of “classical” capitalism were being transformed into monopoly capitalism. Attacks were concentrated on Marx’s critique of political economy, seeking to detect errors and the limitations. The vexed question of the transformation of value into prices was used to “demonstrate” the inconsistency of – what, exactly? Well, just about everything: the labour theory of value as foundation of «classical» economics, the development of the Marxian critique, the existence and extraction of surplus labour and surplus value, the organic inherence of crises in the capitalist system, and so forth. This sharp political and cultural reaction – well received in the avenues of State power and the institutions of official learning, for the following reason – succeeded in blocking the progress of the more factual and scientific line of theoretical development. In the interests of science and the scientific method this line could and should have been developed; unfortunately, it could only developed a good deal later, in our own times, by applying Marxist methodology to the corpus of Marxist thinking, and demonstrating the validity of its essential tenets¹².

Last but not least, the fact has generally been overlooked that the major thinkers of what has become mainstream economic doctrine – Keynes the liberal and the markedly less liberal Schumpeter – though sharing the same theoretical paradigms, arrive at opposite conclusions, with Keynes explicitly supporting what had anyway obviously become inevitable – government intervention in the economy – and Schumpeter certifying that an economy

¹² The reference here is to a decisive early work of V. Orati, *Produzione di merci tramite lavoro* (Naples, Liguori, 1984). Official economics responded to Orati’s thesis by ... ignoring it, thereby demonstrating its commitment to scientific truth ...

based on «free trade» and «perfect competition» would be completely stationary, precluding all development.

In conclusion, let us come back to the question asked above: what can explain the obdurate nature of this official obscurantism? What does it mean?

Ideology: this is the first answer that springs to mind, taking the term in the marxian sense of “distorted thinking” governed by the interest of the dominant classes¹³. Henri Lefebvre developed the notion in his theory of *mystified consciousness*: mystifying operators (in the fields of culture, the media, etc.¹⁴) can themselves become mystified, taken in by their own mystification, and internalising their fictions as “reality”, “truth” or, in the case of economics, “scientific fact”. Ideology is not merely discourse, or even a set of discourses, more or less complex. It has an operational function, particularly incisive and decisive in our times, as the media have taken on a function even more crucial than in the past.

Undoubtedly, the obscurantism is ideological. But there is more to it than that. We are not dealing here with generic ideology, a mere function of the world-view and the «current state of affairs», invading and installing itself in the collective mind. That was true even when the new “theory” of economics was being composed and organised; it already had this function, and kept it up for some time, translating its *construct* into mathematical terms to give a “scientific” finish (Wittgenstein maintained that in the last resort mathematical structuring, if it fits the premisses, is simply tautological) to flawed assumptions that were absurd in many cases and debatable in all. Ideology can also propose the ideology itself as “science”, combining it pragmatically with rationalisations of a whole complex of practices and preferences current in the management of the capitalist economy of the day.

This particular ideology should be understood in the historical context of today. For today it plays a special part. It serves as to cover up – and at the same time expresses - the indecisive but devastating revival, on world scale, of late capitalism – i. e. the capitalism of the multinationals, of big trans-national finance, of the major powers and the super-power that leads them on. This is the real reason why the doctrine of economic liberalism is being so vigorously propounded by the superpower, political classes and the media, and promulgated by submissive governments. And it is also why it is the basic component of the dominant ideology: “in every age, the ideas of the predominant class are the predominant ideas”¹⁵. And it is also why it is far more than mere misguided “discourse” (after all, discourse is not of primary importance): it actively induces the disasters that are taking place

¹³ K. Marx-F. Engels, *The German Ideology*. The reference is to the Italian translation, *L'ideologia tedesca*, Rome, Editori Riuniti, 1967, pp. 35-36. ¹⁴ Mystification can extend to its own agents, which it permeates, transforming them into «mystified mystifiers». This develops the Marxian notion of ideology as «distorted consciousness» twisted in the interests of the dominant class, an «internalisation of production relationships». H. Lefebvre, *La conscience mystifiée*, Paris, Gallimard, 1936, written with N. Guterman, and subsequent works leading to his *Manifeste différentialiste*, Paris, Gallimard, 1970. ¹⁵ K. Marx-F. Engels, *The German Ideology*, op. cit., p. 35. Again: «The dominant ideas of a period were always only the ideas of the dominant class». K. Marx-F. Engels, *Communist Manifesto*. See the Italian translation *Il manifesto del partito comunista*, Rome, Editori Riuniti, 1981, p. 85. And «the dominant ideas are nothing but the ideal expression of the dominant material relationships; they are the dominant relationships taken as ideas». K. Marx-F. Engels, *The German Ideology*; op. cit., *L'ideologia tedesca*, pp. 35-36.

at present and those that loom ahead, striking not only the world as a whole and in particular that part of it that is «underdeveloped», but threatening to drag even the «advanced» countries into an endless spiral of destruction. Unless it is stopped ...

What can be done? The consequences of these remarks on «free trade», together with its conjuncts and adjuncts, remain to be delineated – a task that goes well beyond the theme of a conference entitled «Is there an alternative to free trade?». Yes, there is such an alternative; it is scientifically founded and it only is so founded. But this alternative will not come into existence without struggle – a struggle that cannot be limited to the field of culture, and will have to be taken up in politics, social affairs, economics and elsewhere ... Forces will have to be articulated and co-ordinated on all these levels, linking emergent drives, demands, initiatives and actions that are still dispersed, their theory inadequate, their tactics ineffective and their strategy still to come. All of this will have to form a front.

An *organic part* of this unavoidable battle – an indispensable part, which cannot be forsworn – is the denunciation of the official economic “theory”. This “theory” must be shown up in its true light – as must its proponents. It must be *refuted* – this is already being done and it will be pursued – and alternative lines of thought *identified*, lines of thought that are *possible as of today, at this very moment*. The whole construct of mainstream economics must be explicitly and openly attacked as a bulwark of obscurantism, and those manning it as mercenaries responsible for the disasters that are overtaking us. The clash will inevitably be frontal and violent; it will come in culture, in theory, and in science, with fresh thinking sending a shock wave throughout the oppressed body of subordinated society, opening up possibilities that are really “other” and lie “beyond” the present state of affairs – possibilities that are increasingly needed and increasingly denied, even to thought.

What I am proposing is a *radical* stance, and a difficult one. I realise how arduous this will be for people who live and work in the corporation of economists, whether national or international. Admittedly, for those who, like me, are happy *not* to be economists, it is easier to make a stand. Incidentally, I hope to have made it clear that my disparaging remarks do not apply to present company, and in particular to Prof. Orati; though exceptions are few and far between and are all the more praiseworthy, they do prove the rule, especially as far as economics and economists are concerned. I am convinced that the stance I have outlined is absolutely necessary. Battle lines must be drawn up; economic analysts, instead of fighting alone (as Prof. Orati has had to do, abandoned almost entirely to his own devices for twenty years or more), should form an organised group. Otherwise academic reticence, arrangements between this and that “piece” of discourse, opportunism and shilly-shallying over possibilities will stop us from drawing up a coherent front. The question is no longer whether there is an «alternative to free trade» or not, or whether an alternative is needed, but whether or not one is for or against «free trade». We are faced with a clear-cut choice between liberalism on one hand and on the other progress – scientific, cultural, economic, social, political. To choose liberalism is to accept the ruinous present «state of things». And to aid and abet its hired apologists.

(translated from the Italian by D. Moerdijk)

MARIO MONFORTE

Viterbo, March 31, 2006

New Financial Policy for Undeveloped and not Industrialized World Economiesⁱ

Luis Mata Mollejasⁱⁱ
Sary Levy-Carcienteⁱⁱⁱ

Abstract

Since the end of 20th century, developing economies have suffered from economic crises whose origin and frequency seem to be related to the collapse of the commodity money regime associated to the Bretton Woods System as well as to other changes in the global scene. This has brought about a loss of efficiency in domestic economic policies designed in order to achieve internal and external stability. The major policy implication has been the need to look for alternative exchange rate regimes and better-suited financial and monetary policies in order to both stabilize the interest rate and the exchange rate, and guarantee the required credit expansion for development. This paper proposes, justifies, and explains the major particularities associated to the implementation of a new policy referred to, hereafter, as *Financial Substitution*

Keywords: Bimonetarism, Exchange regime, financial substitution, macroeconomic stability, small open economy

ⁱ A previous version of this paper was presented at "Italy,EU,Globalization: Are there Alternatives to Free Trade?"(IIAESS and John Hopkins University, Viterbo, March 31-April 01, 2006). We would like to thank, without implication, the useful comments of Dr. Vittorangelo Orati, Dr. Gilbert-Abraham Frois and Dr. Clark Reynolds and the help of Angel García Banchs. ⁱⁱ **Luis Mata Mollejas**. Economist. Ph.D. in Social Sciences. M.Sc. in General and Regional Planning. Coordinator of Postgraduate Studies on Theory and Economic Policy (FACES-UCV) and Chief of Economic Area of CENDES-UCV. He is also in charge of the Economic Area of Postgraduate Studies Commission (FACES-UCV). He has published extensively on economics matters and has participated as

exposit number o nationa internationa meetings E-mail: lmata@cantv.net.
or Internaciona Economy. Specialist in Business Administration. Research Coordinator of Economic and Social Science Faculty, UCV. Principal of the Economic and Social Research Institute, FaCES-UCV. Board member of Revista Venezolana de Análisis de Coyuntura. Economic and financial advisor for public and private companies. Has publications on economics subjects and paper presenter at international and national meetings. E-mail: econofin@cantv.net saryle@yahoo.com <http://sarylevy.iespana.es>

New Financial Policy for Undeveloped and not Industrialized World Economies

*Luis Mata Mollejas
Sary Levy-Carciente*

1. Introduction

In the paradoxical global environment, national economic and monetary systems are affected by erratic flows of capital at the global level, which compromise achieving internal goals and also create difficulties to pursue the international ones, wherein both spheres are susceptible to movements of interest and exchange rates. As a result, a diminishing efficiency of domestic economic policies is observed. Common discussion held in the political stage, runs between monetary credibility and independence to face up speculative shocks by means of different exchange schemes. The menu of options has been composed by: fixed, currency board, monetary substitution, partial monetary substitution or of financial assets, regional currency, intermediate or hybrid systems and flexible rates. Each of them had been justified by different postulates or theoretical perspectives and strategic purposes. So, the suggestion has been made of using some kind of fixed type to overcome inflation and the employ of a flexible type to fight unemployment (IMF, 2000).

Recent history -after the transformation of international monetary system in 1971, accepting flexible exchange rates-, shows that at the beginning of 90's over 60% of countries tended towards intermediate exchange regimes, but ending the decade this tendency reduced nearly in a half, and extreme regimes came back again in a significant degree. The explanations range from the Fischer's economic approach (2001), who sustains that intermediate systems are not feasible in the long term when countries keep strongly linked to capital markets, to the viewpoint of Eichengreen (1995), to whom the generalized instrumentation of regimes under fixed exchange rates and its change into flexible ones, can not be viewed as the result of evaluating the performance of economic regimes in themselves, but as the product of endogenous transformation in a set of variables not restricted to the economic sphere. In this sense, several elements must be reviewed: the leading sense of the hegemonic power, the degree of co-operation among nations, the level of intellectual consensus, degree of macroeconomic stability, features of monetary and fiscal policies, so as distributive policies, all as an expression of the level of relative empowerment of different actors within a society.

Regarding the collapse of fixed exchange rate regimes, growing credit expansion and speculation seem to be the major explanatory variables. On the other hand, financial speculation with foreign currency assets, currency-mismatches and/or a high component of imports of final, intermediate and capital goods imply that, currency baskets, target zones and intermediate regimes, as well as "purely" (market-driven) flexible exchange rate regimes have not been able to deal with inflationary pressures, leading in most cases to a *fear of floating*; a label coined by Calvo and Reinhart (2000).

Others exchange experiments results are also discouraging: While the benefits from full-dollarization are: lower inflation, greater credibility, lower interest rates, lower transaction costs in trade and investment, and the full elimination of nominal exchange rate risk, its disadvantages are mostly associated to the lack of an independent monetary policy to deal with the absorption of fiscal crises – when substantial fiscal deficits and

debt burdens are present, or simply in response to general asymmetric shocks. Above all, fully-dollarized economies suffer as well from not having an instrument to deal with domestic financial crises since the absence of a national monetary authority makes it impossible to print money, either to act as a lender of last resort or for any other purpose. An additional outstanding disadvantage from full-dollarization is that the government from a fully-dollarized economy loses the revenue from seignorage, that is, the proceeds the central bank enjoys from issuing non-interest-bearing debt in the form of money base.

As a consequence of the historical and theoretical failure of the above mentioned proposals, this paper considers as fundamental the need to clarify a minimum of reference terms in order to lead to more satisfactory policy decisions. This paper distinguishes between historical and theoretical elements, and mainly focuses on the explanation of a new set of financial policies in order to deal with the above mentioned problems associated to present-day economies. In doing so, the paper implicitly identifies the major implications of the asymmetries of the international monetary system, namely, the co-existence of four major international reserve currencies among a large number of non-universally accepted local currencies. Those distinctions prove to be extremely significant in the design of successful financial policies in contemporary monetary economies.

Our work is organized as follows: we begin outlining a set of global transformations, then an exposition of concepts and theoretical elements, we follow with a proposed policy of Financial Substitution and we finish with some general considerations and recommendations in order to promote regional integration.

2. World Context

Among the characteristic aspects of economic evolution in the last thirty years, since the declaration of US dollar/gold inconvertibility or rejection of merchandise-money, first must be expressed, a growing flow of mass production below the volume of financial transactions, backed by electronic instruments, with the subsequent relative decrease in the use of paper-money issued by the states.

The disparity between the dynamics of production and that of financial processes terminates in increase of unemployment rates and outburst of many financial crises. The exception to this assessment was, apparently, the behaviour of USA economy, which was able to gather a great part of worldly financial investment, through transactions in securities, hence, that economy could compensate its fiscal and commercial deficit. But with the new century, the recurrent volatility of financial values and the increase of unemployment beside the depreciation of US dollar against the euro and the yen, the intrinsic weakness of the USA economy was brought out.

A second feature has been the relative declining tendency, in value and volume, of international trade of raw materials with industrialised nations; hence the less industrialised countries witnessed how their fiscal, monetary, banking and exchange problems worsened.

A third one is the encouragement of multinational processes of integration, stepped to conform continental-sized economies, leaving the national dimension just as an obsolete standard, or at least an insufficient one. In fact, the search for domestic responses to exchange and banking crises, evidently speculation-associated, has been led to reach positive international trade balances, which in a world with intensive ranges of innovations of any sort, full mobility of capitals and merged corporations borne to

operate all over the world (producing the phenomenon of labour exclusion^{iv}), has left small economies practically unarmed to achieve simultaneously internal (stability of prices with frictional level of unemployment) and external equilibriums (trade equilibrium under free mobility of capitals).

This way, political practice has looked for:

- Avail the complementarities of comparative advantages in processes of economic integration in a continental context, in order to reduce the *external* character of a good proportion of commercial trade.
- Coordinate macroeconomic policy with partners in processes of regional integration, in order to contribute to fight unemployment and speculation.
- Get rid of the paradigm of ‘one currency for each nation’ and to favour that of ‘one currency for each market’ or regional integration context.

The US dollar in the NAFTA, and the euro in the European Union, are two important examples of what we have said, whilst in South America the integration processes though initiated in mid-20th century-have been hindered by nationalist visions and the misunderstanding about the rejection made by more advanced capitalist countries on merchandise-money concept, and the recognition of the influence of financial interaction.

Such difference of performance spurs us to indicate precisely the explicative conditions and differences between monetarist and financial visions from a theoretical angle and their political consequences; questions to be faced next.

3. Renovating concepts

In modern economic science, currency is thought as a standard, as medium of exchange and store of reserve (referred to processes over time and space) affected by the behaviour of one or more markets, with which appear different values (prices) and volatile relations among them.

Does it become surprising then that different and even opposite viewpoints have appeared historically around monetary definitions and on predominance among relationships?

If trade balances of all countries were liquidated and there were no flow of capitals, then exchange rates would not be necessary and domestic monetary systems would be kept isolated and countries would focus on temporal valuation’ problems, that is, interest rate. Given the existence of international relations, is mandatory to count on an international payments system linked to domestic ones. For that reason, Keynes (1943), Meade (1964), Triffin (1968), and D’Arista (1999) among others, state the necessity of enough liquidity to manage commercial and financial needs, and to this end, the international system ought to fulfil the following conditions:

- Serve as lenders of last resort to national central banks, with a similar function to the one they realise for domestic commercial banks, which implies the evaluation of reserve resources used to guarantee the balance of trade flows, and

^{iv} The labour exclusion or tendency to chronic unemployment arises from technical transformations in the last twenty years, because new job posts are not easily occupied by the old workers. Therefore, the market division has grown for the various specialisations and with manifold effects, among others a big variability among salary rates; and between offer and demand. (See Alayón, 1999).

- Set an interest rate as a reference to the credit process and to expose criteria to establish exchange rates among national currencies.

The systems set in the last centuries -gold standard in 1870, the gold-exchange standard, or gold-US dollar in 1944- brought out serious failures, so they were relinquished^v.

The main failure in gold standard was the fact of relating international liquidity issue to a national authority, this by addition meant for other national instances to be under such authority, without the constitution of any supranational authority.

From the unsuccessful experiences two conclusions are drawn:

- International currency (and the national one) must be an abstract pattern, with no link to any merchandise or particular-market. Its issue must be subjected to no central authority (national central banks) operating under universal patterns and supervision emanated from a global authority (possibly a federation of central banks), and
- The discussion about fixed and flexible exchange rates, initially associated with flows, ended up as theoretically incomplete (because it did not consider the influence of stocks), impeding the incorporation of all necessary elements for discussion about its influence on stability of international context (DeGrauwe, 1993).

From the theoretical side, a *review* beginning with the seminal work of Mundell (1961), and including among others, McKinnon (1963), Minsky (1967), Kenen (1969), Aglietta & Orlean (1982), Davidson (1997), DeGrauwe (1993, 1997), with the necessary references to Keynes (1943) and Mill (1848), depicts a consensus about:

- National monetary diversity would bring international trade to a process almost near to barter: financial activity decreases and conversion's costs rises according to the increase of the amounts of monetary signs. This will result even more troublesome under a floating regime. For that, the dynamics of international trade is associated with a few currencies, and predominantly one of them: the US dollar.
- Under the above conditions, the existence of numerous and very small exchange markets contributes to the appearance of speculation, which reduces the effectiveness of domestic policies conceived to achieve domestic equilibriums (price stability and unemployment reduction) under perfect freedom of capital movements: the 'impossible trinity'.
- This is explained by the fact that the structure of production between tradable and non-tradable goods and their linked employment are affected by the variation in the exchange rate, necessary to achieve external equilibrium, through the demand elasticity of exports and imports^{vi}. Therefore, it can not be assessed that flexible exchange rate is a warranty to protect the total employment level.
- From the financial side (micro and macro level), the variation of exchange rate acts directly on the variation of interest rate; depreciation of national currency befalls the rise of national interest rate, thus bringing a restrictive effect on credit and investment. Therefore, from this financial angle, floating neither will guarantee a stimulant effect to economy.

^v The gold standard was relinquished for its asymmetric results that violated its assumptions: countries with surplus didn't revalue, and those with deficit that devaluated were not able to grow for the negative impact of interest rate rise.^{vi} Thus, the protected employment is the one related to exports, whilst the employment associated with the production of non-tradable goods will depend on the internal demand, which depends on its price (affected by the cost of imported goods).

- Finally, though from the political angle the most desirable would be the fixed exchange, it would be only sustainable while there is an inflow of capital (as a positive result of current and capital account) that may be able to ensure a large amount of international reserves for normal operations.

The synthesis herein presented, leaves many pending questions, in particular, regard to small and open economies (SOE). How to solve the dilemma of moving among the negative effects of floating exchange and shortages of reserves in order to maintain a fixed exchange rate? How to conciliate within a strategy the supply of ‘expensive’ money (credit) for the private sector—to protect the reserves—and the ‘free’ money through seigniorage for the public sector to stimulate, at best, growth?

The answers to the former questions go further the distinction between fixed and floating exchange rates, since not alone it is required to consider money as numerary, but rather should be considered its creation *ex nihilo* through the credit process, which allows to distinguish between public and fiduciary money (issued by the central bank) and private and intangible money (created by the financial system), to study the interaction between the role of money as medium of exchange and its role as asset or store of value.

Upon that, it is necessary to stand out that the processes of financial innovation have increased the assets with high-level of liquidity, and therefore, accepted as money; for this reason, at a global level, private financial processes prevail over the public monetary ones. Hence, in practice, there is a substitution of domestic currency for foreign currencies of universal acceptance in its role of store of value. In the banking context (deposits and credits) this is brought about by way of the action of international banking in last instance.

When such operations are carried out directly between the international banking and non-financial domestic agents without committing central bank reserves, nor shrinking the role of medium of exchange of the domestic currency, we meet with the so-called *financial substitution* or *bimonetarism*, which has the trait of avoiding the political strains triggered by the total monetary substitution, keeping its main benefit: dropping inflationary pressure associated with the exchanged rate, because the international supply can offer any increase in demand for foreign currencies^{vii}.

As long as financial substitution replace domestic currency for foreign ones in its role of store of value, is concerns, then, to a portfolio conformation decision, wherein is taken into account the differential of risk-yield relation of assets in domestic and foreign currency. At a micro level, such decision can be analyzed starting from portfolio models^{viii}, and the combinations of risk-yield ratios of domestic and foreign currencies instruments generate what is called the Portfolio Efficiency Frontier, and each individual will choose that, which optimizes earnings and risks. Thus, at a macro level it will be set the proportion of portfolio to be kept in domestic and foreign currency.

^{vii} Financial substitution does not impose to eliminate national currency of legal course, but it permits the coexistence with the foreign currency, being this last one what assumes the function of store of value, meanwhile the domestic one remains as medium of exchange and unit of account. The practice of total monetary substitution occurred in the 80’ and 90’, due to the loss of credibility in price stabilisation policies. After their failure, the trial of financial substitution was started.^{viii} The models of making up portfolios derived from the principles developed by Markowitz in 1959. The utmost used are the Capital Assets Prices Model (CAPM) and the Arbitrage Prices Model (APM), the last being more general than the former (Levy, 1999: 21-28).

Under this scheme, the impact of domestic monetary policy will be restricted only to the effect achieved by the proportion of transactions made with domestic currency, and to the supervision of financial transactions (in foreign and domestic currency) carried out by the financial system.

Beside its important positive potentialities, there also exists a weakness of financial substitution, which is the possible appearance of crises due to '*monetary mismatch*', right after the impact of real depreciation of domestic money, with negative effect over non-exporting firms. For such reason, we assert is quite useful to apply a rule of monetary adjustment jointly with high obliged reserve requirements, until currency-hedge markets develop and mitigate such impacts^{ix}.

4. General equilibrium as analytical reference^x: from Walras to contemporaries

Within the orthodox perspective, previously to Keynes, the general static equilibrium — for any time (t) - in any economy, according to Walras-Pareto^{xi}, it would be reached if demanded and supplied amounts in the markets are equalled under the presumption of flexible prices, for all and each market^{xii}. Since Keynes (1936) it's possible to state adjustments for quantities with exogenous prices, except for the interest rate -adjusted in the monetary market. Following Hicks' classification (1937): goods, labour, securities (capital) and money markets, and according to Poncet-Portait (1980), the following equation may be written:

$$p(Y^d - Y^s)_t + w(L^d - L^s)_t + 1/r (V^d - V^s)_t + (M^d - M^s)_t = 0 \quad [1]$$

where: P = goods price r = security yield Y^d = goods demand L^d = labour demand

Y^s = goods supply L^s = labour supply w = wages V^d = security demand M^d = money demand V^s = security supply M^s = money supply

^{ix} A 'rule of monetary adjustment' is understood as credits in foreign currency restricted to sectors which generate themselves such currency. ^x The general equilibrium is the only one that allows from relative elasticities related to interest rates, to recognise the summatory condition as equal to the unity of all elasticities. ^{xi} Static general equilibrium supposes that profit and competence make the individual actions to converge into a maximum of social welfare, so there are no reasons in order to accept government intervention; economy self-regulate by means of the 'invisible hand'. This idea shares two essential elements: efficiency and equity. As for the efficiency, is assumed (is demonstrated) the existence of a flexible vector of prices clearing the markets (equilibrium prices), being compatible as a whole (general equilibrium); but moreover they satisfy the condition of the non existence of another vector of prices allowing to get better the collective welfare (Walras-Pareto Optimum). Even if market failures (externalities) are considered, it will there be anyway a vector of 'virtual' prices giving response to the condition expressed above (Arrow, 1951). Real prices can include subsidies and taxes (Pigou, 1920). The consequence thereof is that any intervention over prices befell social costs. The last statement (neo-classical approach) makes up as far a general theory with precision and strict formality. The long term will be a succession of short terms or temporal equilibriums (Hicks, 1946). ^{xii} From the mathematical side, the price of any particular commodity depends upon the offered and demanded quantities of such a commodity; but beside the prices of the rest of commodities. For Walras, the oneness of the vector was found just counting the number of equations and unknown numbers. For n merchandises will exist $n-1$ relative prices, expressed in terms of n th (numeraire). Therefore, there will be $n-1$ independent equations and one lineal combination of the $n-1$ equation. As the prices found are 'relative', a 'multiplier' is lacking to find the 'absolute' prices found in the marketplace. That multiplier will be aggregated in the classic vision with the quantitative equation of money.

This equation should be interpreted, following Allais (1978), as a formal expression of general equilibrium under the hypothesis of compensation in value between deficits and surpluses into different markets. Whether additionally is established the condition $t \rightarrow 0$ as a short-term reference, then a financial interpretation is reached for the equation [1].

In fact, distinguishing flows and stocks -which outlines dynamics features^{xiii} - allows to enunciate the existence of general equilibrium when stocks in the different markets compensate each other^{xiv}; because flows in an instant, that is, when $t \rightarrow 0$, are annulled. So, equation [1] is reduced to compensation between stocks of securities and money^{xv}. That is, to the following expression:

$$1/r (V^d - V^s) + (M^d - M^s) = 0 \text{ [2]}$$

Or alternatively, it is reduced to compensation between stocks of securities and that of currency, and shown by expression [3], when assuming that exchange market is a ‘mirror’ of monetary market; being that (ch) is the exchange rate and ($\$^d - \s) is the demanded and supplied amounts of currencies.

$$1/r (V^d - V^s) + ch (\$^d - \$^s) = 0 \text{ [3]}$$

Equation [3] states that the conditions in financial markets define the conditions of dynamic economic equilibrium, because the presence of the interest rate points out the time flow^{xvi}. The expression [3] imposes^{xvii}, in the political stage, to arbitrarily select, *ex ante*, an anchor when choosing between interest rate and exchange rate, taking into account the need of getting just one degree of freedom.

In open economies, the arbitrary anchoring open up chances for speculation, as a valid alternative to pursue profits by the way of reproductive investment. Thus, as a matter of fact, *such investment, and therefore product, are determined ex-post (or adjusted) based on decisions made ex-ante in relation to interest rate or alternatively on exchange rate.*

Is it possible to replace the trial-and-error procedure on the political decision making, defining the interaction mechanism between interest rate and exchange rate?

^{xiii} The dynamic analysis or inter-temporal must comprise flows and has to use the principle of maximum (Pontryagin) to allow the formal calculation of optimum paths for growth (Samuelson, 1973) like consumption flows with updated values. For that reason, interest rate becomes a key element.^{xiv} The equilibrium, viewed from econometrics, is defined as a model of type $f(x_1, x_2, \dots, x_n) = 0$, generated by a stationary or convergent process. From this point of view, the defined general equilibrium is included; a reason for this equilibrium to be object of econometric test related to stationary and cointegration.^{xv} This is like saying that stocks markets are adjusted at the instant whilst the flows need estimation by periods.^{xvi} Hicks (1939) assesses that the most evident difference between any static trade and production system, and any dynamic system resides in the lack of loans in the first, and the presence of these in the other (Hicks, 1954: 267, in Spanish edition).^{xvii} We can also build an orthodox version whether making the synthesis of classic hypotheses along with those of Hicks (1937). In this event, the market of securities is eliminated because it would be like a ‘mirror’ of monetary market; the general equilibrium depends on the interaction between monetary and commodity market, that is to say, formulating $P(Y^d - Y^s)t + (M^d - M^s)t = 0$. Such interaction states the same idea than the called ‘quantitative equation of money’. The orthodox reasoning supposes yet that the adjustment of employment market is an output, as it would come represented by two ‘combined’ equations of independent equations. Mathematically, the four-market model would be reduced to the interaction of two markets: commodities and monetary, so that, before the condition of joint equilibrium only rests a degree of freedom: the ‘amount of money’, hence monetarist policy is justified. In Mata (2000) there are versions corresponding to the different hypotheses of models: classical, Keynesian, Hicksian, neo-classical (Patinkin), and neo-Keynesian.

4.1 Financial interaction with real economy

Wicksell (1898) had distinguished between natural interest rate, as productivity of capital goods, and nominal or monetary rate; however he found that banks could not anticipate the natural rate. Keynes (1936) uses the concept of marginal efficiency, justifying capital gains depending upon its scarcity and not to physical productivities. Tobin (1958) understands the concept of 'q' coefficient, as the relationship between the price of new reproductive assets and the value of the old ones, evaluated like stock value in the capital market.

From the already explained is possible to appraise an *investment portfolio* as a combination of assets, when considering discreet returns of banking deposits, but without risks, and the most attractive expected returns -but risky-, of those shareholder assets, as representation of capital goods, and comparing them with the cost of credit or interest rate. In other words, the valuation of an investment portfolio allows, grounded on solely economic concepts -scarcity of capital and yields- to compare or make the transit between the financial sphere and the real economy imagined by Wicksell, in order to explain the accumulative process.

The general equilibrium equation presented as [3] can be broke down when distinguishing between financing from credit, and financing obtained via securities^{xviii}; so it is obtained the following expression [4]:

$$1/rx (V\$^d - V\$^s)_t + 1/q (V^d - V^s)_t + (1 + 1/ra) (CR^d - CR^s)_t + ch (\$^d - \$^s)_t = 0 \quad [4]$$

where: CR^d = credits demand CR^s = credits supply
 ra = domestic active interest rate $V\d = demand of securities in foreign currency
 $V\s = supply of securities in foreign currency
 q = yield of national securities
 rx = yield of foreign securities

Thus, separating credit market from security market, we see that interest rates and yields conform a link of dynamic relation. In the sense of Tobin (1968), stock exchanges provide a referent to financial investment, while savings' remuneration (passive interest rate) and banking credit acts as the marginal referent for capital costs (active interest rate).

The distinction of three financial markets: international securities, national securities, and credit banking, depicts three options for profit and risk. Currency market allows, in turn, to consider risk aversion. So, all financial referents remain linked: speculation, credit and risk reluctance. The relative prices *par excellence* will be then the active interest rates, profit rates (or liability rate instead) and exchange rates.

Normally, differences (margins) among these prices must allow credits cancellations. Whether this condition is denied, then a lack of liquidity would arise and banking would

^{xviii} The 'unbalancing' version of the interaction between financial and real processes, corresponds to the notion of fictitious capital from Marx (*The Capital*, Tome III), who states that there is not even a slight link between the process of capital valorisation (accumulation) and the idea of a capital thought of as an automaton able to create value by itself. Marx gives an example about the unbalancing action which he calls fetishism: the issue of public debt securities, and he states that neither the allocated quantity exists, nor it is oriented to productive investment (accumulation). That is why, to simplify, we shall suppose that the securities are referred to stocks issued by firms.

fall into insolvency because of delays and suspended payments. A situation like this will make attractive to refugee into currency market. An abnormal increase in liquidity demand -withdrawal of funds- or in currencies could be judged as triggers for a crisis^{xix}.

Effectively, if the condition expressed in [4] is applied to a small economy, that is, with external influence but with a performance not affecting global conditions, domestic interest rate -due to the scales of markets- will be equal or higher to the international interest rate: $ra \geq rx$. Then, if the currency rate increases, $ch \uparrow$, as a consequence of a higher currency demand $S^d > S^s$, a pressure will occur to rise the domestic interest rate, $ra \uparrow$. This rise will increase the demand of domestic securities, compared with the demand of foreign securities, but will bear a decrease in the demand of credit, affecting the growth of production and consumption; and everything will be summarised as a stimulus over depressing forces, $Y \downarrow$.

The situation $S^d > S^s$ implies the persistence of negative trade balances: $X < M$. Under this circumstance, orthodox perspective states that the movements $ra \uparrow$ and $ch \uparrow$ and their ultimate consequence $Y \downarrow$ will drop $M \downarrow$, moving the economy towards an equilibrium in a lesser satisfactory point. That is, with lesser consumption and lesser employment.

Thence, orthodox policy outlining the movements of $ra \uparrow$ and $ch \uparrow$ has brought depressive tensions and political upsets, which strength the emergence of financial and banking crises, when transforming illiquidity situations into solvency problems, as defaults and stoppage of payments increase. History teaches that the coordinated assistance of central banks along with the IMF happens after the plunge of the currency, and that banking bailouts are to preserve international creditors.

In 'big' economies, as their domestic markets are quite superior to that of international trade, the influence of external events is minimized; thus economic policy favour changes in interest rates. For that reason, monetary authority will act above all taking care of the influence exerted by credit over production; while in 'small' economies, wherein external influence predominates, they may suffer the temptation of manipulating their interest rate to struggle with currency speculation. Therefore, in these economies, the sole currency market will occupy the centre of the stage.

To sum up, *general equilibrium*, when assuming the credit hypothesis of money, precise the dynamic interaction between finance and real markets, and postulate that banking resources (credit) and from stock markets, are key factors for growth, with non-stable dynamics affected by uncertainty and speculation. This is a consequence of independent agents' behaviour (investors, financial and banking firms) in imperfect and inefficient markets^{xx}.

The basic consequence of this statement is that in contemporary capitalist economies (with prevalence of private and intangible money), the fulfilment of the economic circuit occurs when banking system transactions (credit payments) happen without strains. Whether otherwise, financial and exchange crack could be brought out.

^{xix} Note that the explanation comprises a credit ingredient, as stated by Wicksell (1898); a banking element, according to Bernacer (1922), and a speculative component, as put forward by Stuart Mill quite early in 1848. The stages of crises (Mata, 2000: 284) are: allocation of economic surplus in speculative activities; levered expansion of these ones; forward liquidations, and rising in currency type. In small economies, speculation and rise in credit can be associated with persisting fiscal deficit; the market of titles will exert a lesser role due to its smallness. (Mata, 2001: 107).^{xx} In this level, the monetary rules and financial policies impose a first-rank influence.

As anticipations, key indicators can be obtained from financial key-signs: interest rates, stock market performance, exchange rates, as well as the movements of production, employment and consumption, as real key-signs. In stock markets, a steady drop implies a decrease in capital valuation (losses) and eventually no incentive for investment. Monetary authorities can advance trials trying to reduce interest rate $ra \downarrow$ in order to stimulate credit and recover growth of reproductive investment. Hereby they confront a dilemma, as speculators hold the option of selling up their securities and buying foreign currency. Authorities must trade off between rise interest rates to protect international reserves, or low these rates in order to stimulate credit.

This bring us to point out that:

- 1 In 'big' economies, interest rate considerations prevail over exchange rate, due to the relative importance of domestic over international trade.
- 2 In 'small' economies, the inefficiency of variations in interest rates, for the protection of the reserves, exaggerates the considerations on exchange rate. As a consequence, devaluation seeks to impede the rise of interest rate, but for no purpose, because speculation remains; and
- 3 Upon that, in this last event, bimonetarism is viewed as a way to minimize exchange speculation and to decrease interest rates, increasing currency supply through finance.

Summarizing, the starting point is the general equilibrium principle (interaction of prices and deficit and surplus compensation in markets), outlining the presence of credit market and the relationships between international and domestic trade, which facilitate to grasp a dynamic version of general equilibrium, when considering the differentiation between flows and stocks^{xxi}. According to Hicks (1939), equilibriums are dynamic whether interest rate appears, because it is itself a relationship of values over time. When the condition of short run is pondered on, which from the mathematical angle is equivalent to the application of limit calculus, for a very small lapse ($t \rightarrow 0$), then equilibrium is reduced to conditioning *ex ante* of the stocks markets.

All of this is interpreted in the sense that economic agents consider first the prices of securities, credit, currency markets and that the decisions made on these markets, which are plunged into a short-term view, influence on decisions related to the markets of labour, goods and domestic currency. In other words, macroeconomic adjustment depends upon decisions of portfolio selections of the private sector, taking, primordially, as a reference those on interest rates, yields on stocks and decisions of the authorities with regard to interest and exchange rates. This will be henceforth called by us a financial preadjustment, and thus the adjustment sequence must be examined.

4.2 Adjustment sequence: dynamic general equilibrium

The basic formal model of financial preadjustment gather the hypotheses of instantaneous adjustment on prices and quantities in the exchange market, under the assumption of flexible prices; the adjustment for quantities in security market, when q is known; the adjustment for quantity and prices in the credit market, with a perfectly elastic supply; and the respective further adjustment for quantities in the markets of

^{xxi} The incompatibility criteria, consisting in simultaneously to use 'flows' and 'stocks', fails when the observation is made that flows and stocks are equivalent after deducing initial values from the stocks (Poncet-Portait). Moreover, we suppose, for simplicity sake, that the whole of transactions related to foreign trade (currents and capital) are recapitulated in the stock market. Even additionally the use of national currency is kept along for internal transactions.

labour, goods and currency, according to results obtained from the already referred markets. These originate *two reiterative stages*^{xxii} as follows:

Financial Pre-Adjustment: First Stage

MARKETS	SECURITIES	CURRENCIES	CREDIT
SUPPLY	$qq\ qrVVs =$ □ □ □ □ = + ,	- □ □ □ □ □ = + + + 00 ,, \$\$ Xch R _s	□ □ ' □ □ = + + 0 CR r, KBCR _s
DEMAND	↑ □ □ ↑ ' □ □ = - - + V r q chV _d , ,	□ □ ' □ □ = - - , \$0, \$\$ ch M _d	□ □ □ □ □ = - - CR r q chCR _d , ,
VARIABLE OF ADJUSTMENT	Financial Pre-Adjustment: Second Stage V		r, CR

MARKETS	LABOUR	GOODS	MONEY
SUPPLY	$ww\ wLLs = □ □$ □ □ □ □ □ = +	() □ □ □ □ □ = = + + + P w q r P IY LY ds , , ,	ds MM =
DEMAND	□ □ □ □ □ □ = + w qLL _d ,	□ □ □ □ □ □ = □ □ □ □ □ □ □ = - - + I CR V chI w r chCC d d , , ,	21 21 () MMM rMM M CM d += □ □ □ □ □ □ = - - + =
VARIABLE OF ADJUSTMENT	Ls, Ld	Ys, Yd, P	Md

At the first stage, for the five endogenous variables: **CR, M, Va, ch** and **r**, there are five exogenous variables: **Xo, q, Ro, KB_o** and **\$o**, where **X** represents exports, **q** nominal yield of securities, **\$o** the pre-determined outflows in currencies (for example, amortizations and payment of interest); **Ro** means the initial stock in reserves of currencies; **KB_o** means banking capital, and **M** represents imports^{xxiii}.

In order to examine the real markets of labor and goods, at the second stage, is enough to explicit the exogenous variable for nominal wages (**w**), in the market of labor, because when dealing with the goods market, then the variables **CR, V, q, ch**, are the result of the first stage. In the currency market, practically residual to liquidate balances, is determined the demand of money (**Ma**) in function of variables already calculated or predetermined. In short, there are six predetermined variables **CR, V, r, ch, w, r** for six endogenous variables: **Ls, Ld, Ys, Yd, Md, P**. The corollary valid for the policy will be: if authorities think the level employment is excessive, decreases in interest rates and exchange rate will result essential.

The first goal need the lack of pressures in the exchange market, upon that capital inflows must be facilitated and their eventual outflows be moderated, using prudential

^{xxii} Stock market will give a **q** *ex post* which becomes reference for the next stage. ^{xxiii} Alternatively, on this same stage, can be assumed that **r** is exogenous linked to a fixed **ch**, finding so as endogenous a certain **q**. This condition was yielded in big economies under the Bretton Woods system.

reserve requirements at the Central Bank^{xxiv}. As for enterprises, price of goods' adjustment, taking care interest's reduction and exchange stability, will keep a desirable level of inventory.

4.3 Graphical interpretation of financial preadjustment

The former section explains algebraically the stages of financial preadjustment. The following graphs depict the respective schematization following the method conceived by J. Hicks (1937) and originating the very well-known IS-LM Model. That is, the functions corresponding to equilibrium possibilities in financial and real markets are determined. We will focus on demand, as considering supply as potentially infinite^{xxv}. The function to be defined in the graph No. 1 corresponds to portfolio investments, which we shall call **VCR**, as the result of interaction between demand of stock securities (V^d) supplied with yields q which we assume as being the *Tobin's 'q'*, and credit demand (CR) whose cost is the interest rate, r .

A second function appearing in the graph N° 2 is what we call **M\$**, which reflects the interaction between demand of currencies ($\$d$) inversely associated to interest rate. This withholding is equivalent in volume to the one we would obtain for domestic currency (M) as risk moderator, in positive association to savings.

The interaction of both curves **VCR** and **M\$** in the graph N° 3 determines the portfolio (I^*) of assets and liabilities, which allows to observe interest rate level. That is, the equilibrium portfolio or financial preadjustment is determined. It is evident how the composition of portfolio (I^*) has an equivalent of physical or reproductive investment, and that the interest rate and consumption hold an opposite relation. Thus, pondering of interest rate leads to consumption level (C^*) and if we add (I^*) the global demand, or Y^* , will be found.

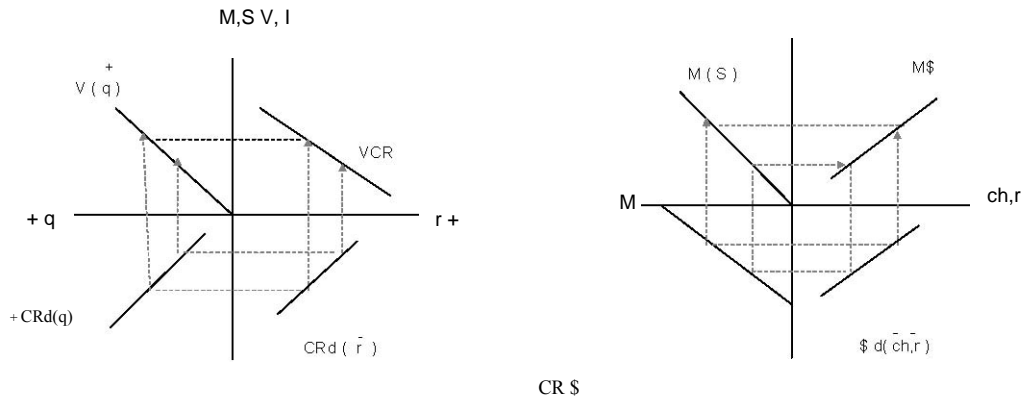
In graph N° 4, we see production and real wages (w/p^*), which are determined according to technical relations between real investment and labour demand, being evident that Ld^* and w/p^* levels are not necessarily those for full employment, neither global supply needs to be in equilibrium with global demand, just as is showed in the second stage of the algebraic scheme of financial preadjustment.

Note that the two first graphs, corresponding to the first stage of financial pre-adjustment, gather the microeconomic conditionings, which allow the selection of portfolios that will predetermine the macroeconomic results showed in graphs No 3 and No 4, referring to second stage of preadjustment. So, the micro and macro interaction are observed.

^{xxiv} The experience in Peru and Bolivia set this level around a 30%. ^{xxv} In the case of credit, of course there are limitations on quality, but this is not a limit in the potential of offer.

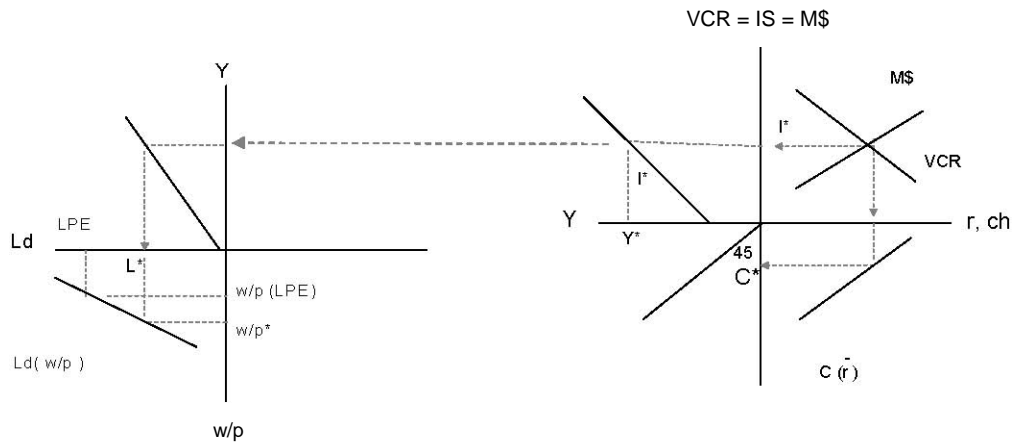
Financial Preadjustment Investment Portfolio Selection

Graph N° 1 Graph N° 2 Credits and Securities Monetary Assets



Interaction with Real Markets

Graph N° 4 Graph N° 3 Employment and Output Global Demand



Note: Quadrants express nonnegative values and lines reflect only the direction of the associative relation and not its structure.

5. The Economic Turmoil.

Following the preceding adjustment scheme, the economic circuit fulfillment would come along when final transactions of banking system (credit payment) occur without higher strains, accepting that credit process shows a lot of instabilities in the interest rate, when transforming non-liquid into liquids assets (payment obligations).

Effectively, if financial investment speed up (speculation) or any equivalent, an increase of risky credits demand (followed by stock accumulation) will produce new credit demands (or discounts) in order to pay past obligations, pushing up interest rates and rediscount rate (monetary market). This will induce losses in the stock market when companies' values will go down. So, part of monetary resources will trend to deviate into currency (risk protection) with further detriment in production and a greater fall of payment capacity for acquired obligations (banking fragility).

Generally speaking, we can say that a strong valuation of securities and an increase on credit (1st stage) without chance to cancel (interest rate rise) will be followed by a stage (2nd) wherein the lack of liquidity will bring problems of banking solvency and will look for liquidity through stock markets, in order to cancel obligations (3rd stage). As a result, stocks will lose value due excess in supply and thus investors will lose wealth. If banking solvency problems do not receive the assistance from their owners, with new capital or through central bank aid, currency demand will rise; so a banking and stock crisis will add up to another in the exchange market (twin crisis, 4th stage). In countries with steady fiscal deficits, domestically financed, aids may create a similar process^{xxvi}. For all events, steady rises in interest rate will blend into depressive processes, banking and stock crises (pursuit of liquidity) and losses of currency^{xxvii}. Then, it is self-evident that fiscal and monetary authorities have to keep freedom in currency market and provide liquidity for the credit market, which means to keep *one eye* on currency encashment and international reserves, and another on credit market. As for crises, authorities ought to take action *ex ante*, checking the quality of credit^{xxviii} and *ex post* diminishing the depressive process, increasing liquidity. It must be underlined that this assistance must not be automatically done (guaranteed) to avoid laxity in banking sector behavior. But once the panic broke out, intervention must be quite fast.

Executive and legislative national powers (authorities with fiscal responsibilities), must account for public expenditure and its finance; influencing interest rate and exchange market. Therefore, to achieve goals on rising employment, price stability and increase *per capita* incomes, is necessary a tied collaboration between fiscal and monetary authorities. However, as these authorities have lost efficiency at international level, due to globalization processes, solutions will depend upon, taking advantage of international

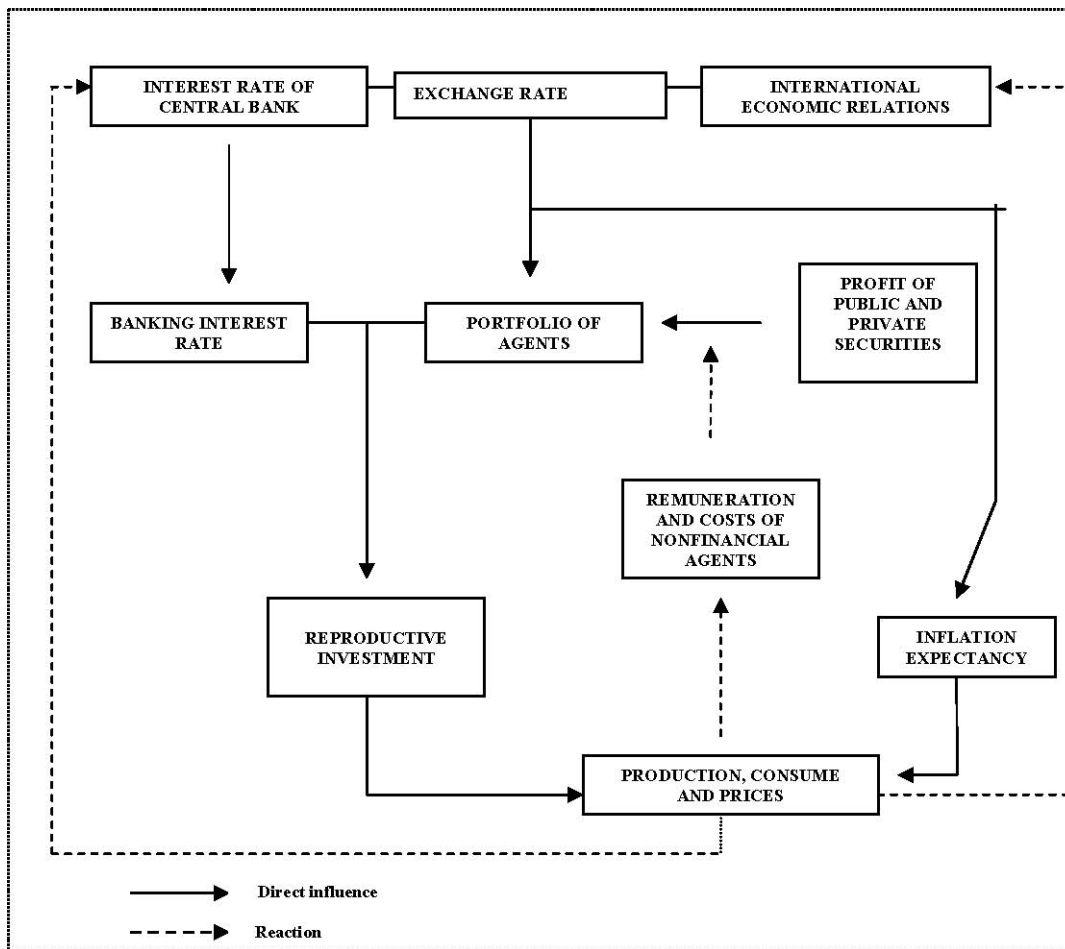
^{xxvi} The interaction among fiscal and banking crises and those of exchange rate has occurred recurrently during the last two decades (Chile 1982, Argentina 1982 and 1985, Venezuela and Mexico in 1994-95, Asian Southeast Tigers in 1997-98, and Colombia 1999). Krugman will employ the monetarization as an explanation of steady fiscal deficits, which would lead to attacks against currencies; in the meantime Müller (1996, 1999) points out how banks with lack of liquid assets will be a sufficient cause to stimulate speculation attacks on a set of nations.^{xxvii} This indebtedness process being faster than the cash flow ever allows, has occurred frequently in USA during 1929 and 1971, and the presence of the four stages mentioned has been proved, even the loss of value in the dollar too. The intervention of Federal Reserve in 1987, proved to be useful to stop the crisis just at the beginning.

Among the present preventive measures is possible to find the rules comprised in the Basel Agreements.

supply of currencies, through the behavior and political commitment of supranational authorities and those of continental-sized nations in formation^{xxix}.

It may be stated that, for achieving international coordination and accepting the hypothesis of endogenous money, that interest rate change transmissions -supervised or controlled by central bank and financial authorities- in the short run, affect savings and agents' debt prone. Agents' responses to these shifts is measured through the so-called *substitution effects* (attractions to expenditure and saving) of rent (changes on financial gross incomes), and finally over production and aggregate demand. This will be expressed on movements on exchange rate and goods prices. Interactions between finance and real economy are depicted in graph No.5.

Graph 5. Financial Integration



^{xxix} The cooperative behaviour allows to evade the 'prisoner dilemma' when reaching a higher economic equilibrium.

6. A new policy for undeveloped or not industrialized economies: the Financial Substitution.

Two elements are of extreme relevance for the study of the case of undeveloped or not industrialized economies:

⌚ Firstly, as opposed to the case of the so called first world economies, undeveloped or not industrialized economies are characterised by the fact that the locally issued currency is not accepted abroad. This represents a great limitation for economic policy, since it implies that the ultimate repayment of imports and international debt uniquely relies upon the evolution of exports; while the same is not true for the case of first world economies. The latter, in turn, may as well rely upon final settlements by means of credit expansion and money printing.

⌚ A second relevant element refers to the degree of development of capital markets which in the case of undeveloped or not industrialized economies is very limited, and therefore, implies that the raise of the interest rate in order to calm pressures upon the foreign exchange market is usually insufficient to deal with the problem of financial speculation with foreign exchange.

A major consequence for the case of undeveloped or not industrialized economies is derived from the above conclusions. As those economies are usually dependent upon the import of final, intermediate and capital goods, their economic growth becomes highly dependent upon the attraction of international currency by means of exports and financial substitution. Next section focuses on the latter.

In present days which are characterized by a vertiginous increase in the volatility of capital flows, the exchange rate regime constitutes a deterministic institutional rule to achieve the necessary systemic stability. The problem is to simultaneously stabilize the interest rate and the exchange rate. Under a limited amount of international reserves, credit expansion or, simply, speculation, leads to the collapse of fixed exchange rate regimes. Equivalently, the extreme alternative to the previous case, namely, the establishment of a floating exchange rate regime may lead to high levels of imported inflation, and therefore to a fear of floating.

Clearly, the first best economic policy to deal with the above mentioned problem is the effective development of a process of economic integration leading to the establishment of a regional currency and central bank. However, in the short-run, many political, institutional, and cultural obstacles represent relevant costs within this process. Unsurprisingly, as will be argued, the policy of financial substitution implies a smoother transition to the convergence process leading to economic integration and the establishment of a common regional currency. The reason is that financial substitution requires neither a benchmark currency to be followed nor any extreme deflationary fiscal and monetary policy aimed at guaranteeing convergence. That is, financial substitution policies imply a soft-landing to convergence.

What is then so neat about Financial Substitution?

The answer to the previous question is straightforward since it is mainly associated to the evolution of contemporaneous economic processes and conditions. That is, in undeveloped or not industrialized world, economic agents themselves, following their own interests, usually enter into off-shore asset substitution. This regularly occurs due to the fact that regardless of the level of domestic interest rates, agents tend to protect

the value of their monetary and financial wealth by purchasing foreign assets denominated in terms of international reserve currencies.

The above legitimate process, when confined to off-shore transactions puts greater additional pressure upon the interest rate and the exchange rate, and above all, implies that economic monetary and financial resources flow out of the domestic economy; a major consequence of which is a continuous process characterised by permanent unemployment, and stagflation.

The same is not true when political authorities are willing to recognize the legitimacy of such a process, and hence allow for domestic institutional reforms in order to internalize it. Those reforms transform the off-shore process of financial substitution into an onshore one; in practice what they do is: (i) *to institutionalize a decision which has already been taken by the public*, and (ii) *to establish the rules aimed at achieving the general objective of stabilization*.

The following table summarizes the pros and cons of a process of financial substitution:

STRENGTHS WEAKNESSES	
Reduce the risk of devaluation and hence exchange rate crises	Reduce the impact of exchange and monetary policy, which is confined to the domestic currency Banking system focused on currency
Tendency to equalization among operations and bias of investments to domestic and international interest rates operations returning international	currencies Surveillance and control of credit amount and quality on private banking decision
Transaction costs reduction and parallel of price movements to international level (associated to international banks) markets and increases trade and investment	Depth of financial Diminishing seignorage returns ^{xxx}
Downs inflation levels and stimulate Domestic economic pressures under non-fiscal discipline encompass cycles domestic/international	Central bank losses Lending Last
Increases general credibility institutional transformations	Resource function No need for big

The financial substitution process, which is mainly characterised by the fact that is everywhere legitimized and observed in the case of undeveloped or not industrialized economies, is mainly associated to commercial bank money (loans and deposits) and not to central bank money (monetary base). The comprehension of the previous argument is fundamental for the design and implementation of fiscal, institutional, financial and monetary rules.

Following the theoretical lines previously defined in Section 3, the core of those rules cannot be assessed within a partial equilibrium framework; nevertheless, they may be summarised as follows:

^{xxx} Which in turns it is an element that reduce the propensity to the abuse of this mechanism as fiscal income generator, being so, also a positive aspect.

 **Institutional:**

☺ To reform *legal tender rules* in order to allow for the domestic (on-shore) holding of financial assets in terms in foreign currencies (credits and deposits).

 **Finance and Monetary:**

☺ To regulate financial substitution in order to guarantee that foreign currency denominated (bank) credit loans are solely allocated to the export business sector of the economy – currency-matching rule.

☺ To establish a *managed flexible exchange rate regime* characterised by the fact that exchange rate stabilization policies will not affect the central banks' interest rate-setting decisions.

☺ To implement a financial and monetary policy whose principal focus will be on maintaining a low and stable short-term interest rate aimed at accommodating private banks' demand for base money (bank reserves).

☺ To impose an adequate reserve ratio upon foreign currency bank deposits which must be in any case higher than the one applied to the case of local currency deposits.

☺ To coordinate government development plans and central bank's discount activities in order to promote the selective allocation of private bank credit, as well as to limit credit expansion associated to speculative activities.

☺ To promote the development of a market for foreign exchange hedging instruments.

 **Fiscal:**

☺ To implement a policy aimed at pursuing fiscal balance at the different structural levels, mainly by restricting the expenditure of revenues coming from exhaustible commodities and raw material exports to capital investments.

☺ To eliminate permanent (current-expenditure) fiscal deficit in order to reduce continuous pressures upon the interest rate.

 **Fiscal-Monetary:**

☺ In order to guarantee a lower volatility and level of the interest rate, competition among the fiscal and monetary authorities must be avoided by creating the appropriate incentives to exploit complementarities between both policies by means of coordinated asset and liability management strategies.

7. Monetary and Financial Substitutions in Latin America

Latin American experience indicates that the currency substitution process does not require either the so-called full dollarization of the economy, as in the case of Ecuador^{xxxii}, or the establishment of a currency board, as in the case of Argentina^{xxxiii};

xxxii Many of the political and economic difficulties of Ecuador are associated to the resulting deficits conducted in order to finance the conflict with Peru (1995), and the destruction of the coastal infrastructure in 1997 due to natural causes (phenomenon "Del Niño") whose cost reached up to 13% of GDP. During 1996-1997, the financial assistance from private banks for US\$ 300 million and the placement of Eurobonds for US\$ 500 million were insufficient to avoid the fiscal, banking and exchange rate crises which immediately distorted the political sphere. The decision to dollarize the economy by President Jamil Mahuad took place on the 9th of January 2000 immediately before being ousted by a

both are nothing else than variants of the commodity money regime. It is sufficient to reform a few legal norms, and to establish international financial support agreements, in order to allow for the establishment, holding, and settlement of banking transactions not only denominated in local currency, but as well in terms of selected foreign currencies, while simultaneously allowing private agents to freely choose whether to use them or not as units of account and means of payment. That is to say, it is sufficient to resort to financial substitution or partial dollarization without giving up the country's own monetary policy; experience which, in the last decade, shows remarkable benefits in the cases of Bolivia and Peru^{xxxiii}.

What was the cost of this action? It was simply the authorities' recognition and acceptance of their impossibility to face the universal transformations with their obsolete set of domestic monetary policies. Nowadays, it is necessary to reform the very old central banks, by enabling them to undertake financial policies to be properly coordinated with major trade partners. Under these conditions, fiscal coordination is crucial to instrument an anchoring on prices, since by avoiding the internal financing of the fiscal deficit, the interest rate in the national market must come near to the international one, which is always lower due to scale economies.

civic-military board on the 21st of January of the same year. After the dollarization, the IMF approved assistance for US\$ 304 millions; and up to US\$ 2,000 million on demand during the next years. Additional international sources accounted for US\$ 500 million. The old debts (Eurobonds and Bradys included) have been reduced in 40% of their face value while their terms have been extended between 12 and 30 years, hence allowing for a more reasonable repayment. A recapitalization of private banks still remains to be done. xxxii Between 1945-1955, period of the Peronism, the growth of domestic consumption (5,1%) reduced traditional exports (cereals and meats 0.9%) while, ironically, the policy of imports substitution caused an increase in the imports of intermediate goods (13,8%) and capital. From 1956, the regimes established in order to palliate the trade deficit resorted to devaluations and external credit, which in 1983 reached up to US\$ 42,000 million. This process, along with maintained fiscal deficits, lead to hyperinflation and to the conviction of the need to increase exports. The different stabilization plans contained aggregate demand, as well as aggregate supply; the insolvency of firms implied the fragility of the domestic financial system. The internal debt was liquidated through negative real interest rates, while extensions up to five years in repayment plans applied for past due debts. In 1984 the "austral plan" settles down (within a period of permanent renegotiations) in order to reduce inflation and to be able to service the external debt through the increase in exports. The financial burden, of approximately US\$4,200 million/year, constituted a constraint for economic policy and a dependency upon international organisms and creditors. The constitution of "MERCOSUR" and the establishment of the currency board, initially supported by external capital inflows started a period of price stability. The reduction in capital inflows, the devaluation in Brazil, and the incapability to face external payments lead to the withdrawal of any remaining support of the collapsing system. xxxiii By 1977 a system of "crawling peg" or maintained mini devaluations was established in Peru. Such a period lead to substantial devaluations and a hyperinflation associated to the fiscal deficit and the crisis of the Latin American external debt in 1982. During the period 1985-87, the attempts to revert the crisis by freezing foreign-currency denominated deposits failed, while the aversion to the national currency, and a dynamic black market, started developing. Between 1990 and 1994 a drastic change in the economic policy of Peru took place within the terms of the Washington Consensus. The state intervention in production, the intensive protection (denominated "active industrialist policy"), and the so-called indiscriminate subsidies were diminished in order to deal with the government's acute deficits (14.7% of the GDP in 1988). The financial public systems (with funds financed by credits from the Bank of the Nation and by monetary emission) were radically suppressed, and the handling of the interest rate was left to the free market. The fiscal and monetary adjustment initiated in 1990 stopped the hyperinflationary process. The program of adjustments included the suspension of the foreign exchange control, and the free holding and use of foreign currencies by residents, installing, therefore, a regime of financial substitution or partial dollarization.

The corollary for the exchange rate and monetary policy in Latin America, is that in general, according to the experience of the last years, independent floating regimes, without the establishment of a financial dollarization (through the corresponding institutional reforms) is a strategy that may lead to accentuate the crises instead of reverting them; we must have then to concentrate on the debate of realistic options.

8. Final Remarks

Every alternative associated to a diverse exchange rate regime has a set of characteristics that makes it more or less appropriate for the specificities of the different economies, including their links with the international capital markets, and the tendencies that may take place in their surroundings. Equivalently, the roots of the considerations about diverse exchange rate regimes are the different principles which sustain the theoretical perspective regarding money, its functions, its creation and the link between the financial and real spheres of the world economy. In the present times characterized by a vertiginous increase in the volatility of capital flows, the exchange rate regime constitutes a deterministic institutional rule to achieve the necessary systemic stability.

Ever since the collapse of the Bretton Woods Agreement, and hence, since the end of the commodity era, an increase in volatility of capital flows and exchange rates has been experienced. Equivalently, increasing financial crises have shown their impact upon economic growth and employment. In all of these crises, the fragility of the exchange rate regimes has been observed after important speculative attacks and private capital outflows take place under the impotence of the public sector. The international tendency seems to be led towards the establishment of great areas of influence for the main currencies. In this sense, the US dollar and the euro are the most relevant currencies playing a crucial role in the international sphere.

The need for a reconstruction of the international financial architecture, although felt since the flotation of the US dollar, has been evident with greater clarity since the Mexican crisis (1994), the Asian crisis (1997), the Russian crisis (1998) and the Brazilian one (1999). As previously indicated, many are the views on the debate around this reconstruction, among which, the need for a world-wide currency to allow making compatible the objectives of economic growth and stability is underlined. This scheme would entail a true pattern of measures for the universal currency constituting itself a “numeraire” anchorage at the global level.

To adopt a currency different than the national one has both political and economic costs, but to evaluate them outside the universal context would not make any sense for the small developing countries. Reality forces small economies to move within viable economic and political perspectives. The costs of adopting a currency different than the national or domestic one cannot be evaluated from absolute perspectives but relative to its viability under conditions of free capital mobility and preeminence of financial factors.

The process of domestic financial substitution offers the possibility for small open economies to achieve relative stability of the exchange rate instrument, while allowing for the use of the national currency for transactions purposes and therefore retaining an autonomous national monetary policy. It also facilitates: (i) future processes of regional integration by accepting *de jure* what already takes place *de facto*: the existence of different areas of influence of diverse currencies, and (ii) the constitution of a unique pattern of measure for a universal currency.

Sub-regional or continental integration processes guided by industrialized countries have favored the establishment of great currency areas of influence, being the US dollar and the euro, the prototypes currencies in this process. Under a regional integration perspective, sharing homogeneous quantitative references allows a better evaluation on particular conditions to advance in the pursuit of a common monetary sign of reference, in order to ground objective competitive advantages, to stimulate exports and to pursue common goals on economic growth and stability. These aspects are particularly important to small open economies participating in integration processes.

Authorities must recognize and accept their impossibility to face the universal transformations with their obsolete set of domestic monetary and financial policies. Nowadays, it is necessary to reform the very old central banks, by enabling them to undertake financial policies to be properly coordinated within major trade partners. Under the above mentioned conditions, fiscal and monetary coordination is crucial to promote an anchoring on prices.

Summarizing:

- ☞ Exchange rate regime is a main institutional rule
- ☞ Tendency towards great areas of influence of the main currencies is a fact in our days.
- ☞ Adopting a currency different than the domestic one has both political and economic costs.
- ☞ Financial Substitution offers the possibility for small open economies to achieve relative stability.
- ☞ Financial Substitution smoothes the process towards regional convergence and integration

8. References

- Agenor y Montiel (1996) *Development Macroeconomics*, Princeton University Press, Princeton, N.J.
- Aglietta Michel y Andre Orlean (1982) *La Violencia de la Moneda*. Ed. Siglo XXI, México. Alayón R. (1999) *No todos subirán al Tren*, Edit. La Espada rota y FACES-UCV, Caracas, Venezuela. Allais, M (1978) *La Theorie Generale des Surplus*. 2^{da} Edition 1989 Grenoble, Presses Universitaires. Alesina A., R.J. Barro (2001) "Dollarization" *American Economic Review*, Vol.91 (2): 381-85. Baliño, T, A. Bennett y E. Borensztein (1999) *Monetary Policy in Dollarized Economies*, IMF, Occasional Paper, #171, Washington DC. Bassoni M. y A. Beitone (1998) *Problemes Monetaires Internationaux*. Paris, Edit. A. Colin. Bernacer (1922) "La Teoría de las Disponibilidades como Interpretación de la crisis y del problema social", *Revista Nacional de Economía* N°40.
- Borensztein, E., J. Zettelmeyer y Thomas Philippon (2001) *Monetary Independence in Emerging Markets: Does the Exchange Rate Regime make a difference?* IMF, Working Paper #1, Washington DC.
- Bowles, Samuel (2004). *Microeconomics: Behavior, Institutions and Evolution*, Princeton University Press. Calvo, G., and Reinhart C. (2000). "Fear of Floating". University of Maryland. Working paper.
- Coleman, A. (1999) *Economic Integration and Monetary Union*, New Zealand Treasury working Paper 99/6, Wellington
- Comisión de la Comunidad Europea (1990) "One Market, One Money", *European Economy*, #44

Davidson, Paul (1983). "Rational Expectations: a fallacious foundation for studying crucial decision-making processes". *Journal of Post Keynesian Economics*, Vol. 5, Winter, No 2, 182-198. Davidson, Paul (1988). "Endogenous Money, the production process, and inflation analysis", *Economie Appliquée*. Tome XLI, N°1, 151-169.

Davidson, P. (1997) "Are grains of sands in the wheels of international finance sufficient to do the job boulders are often required?" *The Economic Journal*, Vol.107, May (442):671-686. Dees, S. "Vue d'ensemble: A. Nouveau millenaire nouvelle economie ? en *L'Economie Mondiale* (2001). Paris, La Decouverte.

DeGrauwe, P. (1993) *Exchange Rate Theory: Chaotic Models of Foreign Exchange Markets* Blackwell Oxford UK & Cambridge USA. De Grauwe, P. (1997) *The Economics of Monetary Integration*, 3ª. Ed, Oxford University Press.

Dornbusch, R (2001) "Fewer Monies, Better Monies" *American Economic Review*, Vol.91 (2):238-42.

Drazen, A. (2002) *Political Economy in Macroeconomics*. Princeton, New Jersey Princeton University Press.

D'Arista, J. (1999) "Reforming the Privatized International Monetary and Financial Architecture" *Financial Markets and Society*, Nov 1999, Financial Market Center.

Eco, U. (2003) *La Isla del día de Antes*. Barcelona, Random House, Mondadori. Edwards, S. e I.

Magendzo (2001) *Dollarization, Inflation and Growth*, NBER Working Paper 8671, Dec.2001 [<http://www.nber.org/papers/w8671>]

Eichengreen, B. (1995) "The Endogeneity of Exchange-Rate Regimes" en Kenen, Peter (ed.) *Understanding interdependence. The Macroeconomics of the Open Economy*, Princeton University Press, New Jersey.

Fischer, S. (2001) "Exchange Rate Regimes: is the Bipolar View Correct" Conferencia Distinguida en la *Reunión de la American Economic Association*, New Orleans, Enero 6, 2001 [www.imf.org/external/np/speeches/2001/010601a.htm]

Fondo Monetario Internacional (2000) *Annual Report*, Washington DC. Greene, W. (1998) *Análisis*

Económico, 3ra. Ed Prentice Hall, Madrid. Hicks, J. (1937) "Mr. Keynes and the Classics: A

Suggested Interpretation". *Econometrica*, New Series. Hicks, J. (1939) *Valor y Capital*. FCE. México.

Kenen, P. (1969) "The theory of Optimum Currency Areas: An Eclectic View" en: Mundell R. y A.

Swoboda (eds.) *Monetary Problems of the International Economy*, Chicago y Londres, University of Chicago Press, pp.41-60. Keynes, J.M. (1976 [1943]) "Proposals for an International Clearing Union" en Moogridge, D. *John Keynes*. Londres, Penguin.

Keynes, J.M. (1945) "Activities 1940-44: Shaping the Post-War World, the Clearing Union" D.

Moggridge (ed.) (1980) *The Collected Writings of John Maynard Keynes*, Vol.25, London: Macmillan.

Levy-Carciente, S. (1999) *Los Fondos Mutuales y los Sistemas Financieros. Casos: España, Estados Unidos, México y Venezuela*. Fondo Editorial Tropykos y FACES-UCV, Caracas.

Levy-Carciente, S. (2000a) "Los Sistemas Bancarios en los Países de la CAN; Tendencias y Perspectivas" *Nueva Economía*, Año VIII (13), Año IX (14), Abril: 317-374, Academia Nacional de Ciencias Económicas, Caracas

Levy-Carciente, S. (2000b) "Sistemas Bancarios y Globalización: Experiencia Venezolana" *Revista Venezolana de Análisis de Coyuntura*, Vol. VI, Jul.-Dic.(2):57-84, FACES-UCV y BCV, Caracas.

Levy-Carciente, S. (2003) "De Bretton Woods a la Globalización Financiera" *Revista Análise Econômica*, Año 21(39):5-22, Brasil.

Levy-Carciente, S. (2004) "Ciclos y Fluctuaciones Financieras: La Irregular Dinámica Económica", *Revista Análise Econômica*, Año 22 No.41 Marzo,pp.117-154. Brasil.

Marchall, J. (1979) *Le Systeme Monetaire Internacional*. 7^{ma} Edition, Cujas, Paris. Marx, C. (1867 / 1894) *Das Kapital*, traducción al español 1946, México, FCE. Mata Mollejas, L. (1999) *Economía Alternativa*, CEAP-UCV y Editorial Tropykos, Caracas. Mata Mollejas, L. (2002) *Opciones Monetarias para Suramérica: Sintomatología y Tratamientos*. CENDES-CEAP, Mimeo, Caracas.

Mata Mollejas, L. y J. Niño (2001) “La Teoría del Preajuste Financiero: algunos indicadores empíricos”. *Revista Venezolana de Análisis de Coyuntura*, Vol. VII N° 2 pp.127-147. Mata Mollejas, L. (2003) “Bimonetarismo: Opción Sub Optima para América del Sur”. *Revista Venezolana de Análisis de coyuntura*. Vol. IX N° 1 pp. 191-227.

Mata Mollejas, L. (2004) *Teoría de Preajuste Financiero*, Trabajo de Ascenso Titular UCV, Mimeo, Caracas. Mata Mollejas, L. (2004) *Esquemas Macroeconómicos*, Fintec, Caracas. McKinnon, R. (1963) “Optimum Currency Areas” *American Economic Review*, Vol.53 (Sept.): 717-724. Meade, J.E. (1964) “El mecanismo Monetario Internacional” en Mueller, M. (Recopilador versión en español, 1972) *Lecturas de Macroeconomía* Barcelona, Edit. Continental. Edición original en *The Three Banks Review* N° 63 pp. 3-25.

Mill, J. [1848] (1951) *Principios de Economía Política*, 2da. Ed., FCE México. Minsky, H. (1967) “Financial Intermediation in the money and capital Markets” en Pontecorvo, G et al. (eds) *Issues in banking and monetary analysis*, New York.

Mundell, R. (1961) “A Theory of Optimum Currency Areas” *American Economic Review*, Vol. 51 (Sept.): 657-665. Mundell, R. (1997a) “Updating the Agenda for Monetary Union” en M.I.Blejer et.al. (eds.) *Optimum Currency Areas: New Analytical and Policy developments*. International Monetary Fund, Washington.

Mundell, R. (1997b) “Common Currencies versus Currency Areas: Currency Areas, Common Currencies and EMU” *AEA Papers Proceedings*, Vol.87 (2), Mayo. Mussa, M. et al (2000) *Exchange Rate Regimes in an Increasingly Integrated World Economy*. FMI, Occasional Paper #193.

Quispe M., Z. (2000) “Monetary Policy in a Dollarized Economy: The case of Peru” en L. Mahadeva y G. Sterne (eds.) *Monetary Policy Frameworks in a Global Context*, Routledge y Banco de Inglaterra. Rose A.K., E. Van Wincoop (2001) “National Money as a Barrier to International Trade: The Real Case for Currency Unions” *American Economic Review*, Vol.91 (2): 386-90.

Samuelson, P. (1947) *Foundations of Economic Analysis*. Cambridge (Mass) Harvard University Press. Schumpeter, J. (1995 [1954]) *Historia del Análisis Económico*. Ed. Ariel Economía; Barcelona, España.

Tobin, J. (1958) “Liquidity preferences as behavior towards risk”. *Review of Economic Studies*. Vol. 25 N° 67.

Tobin, J. y W. Brainard (1968) “Pitfalls in Financial Model Building” *American Economic Review* Vol. 58 pp. 99-122. Tobin, J. (1969) “A General Equilibrium Approach to Monetary Theory”. *Journal of Money, Credit and Banking*. Vol. I, pp. 15-29. Triffin, R. (1968) *El Sistema Monetario Internacional* Edición en español. Buenos Aires, Amorroutu Edits. Wagner, H.(2001) *Implications of Globalization for Monetary Policy*, IMF Working Paper #184, Washington DC. Wicksell, Knut (1962 [1936]) *Interest and Prices*. Augustus M. Kelley, NY

Williamson, J. (2000) *Exchange Rate Regimes for Emerging Markets: Reviving the Intermediate Option*. Policy Analyses in International Economics, #60, Institute for International Economics, Washington DC.

What is New in the Analytical History of International Trade: Ricardo-HO-Orati

Abstract.

The comparative costs theorem becomes the dominant principle in international trade theory in spite of a series of empirical questions that belie its conclusions or are not taken into account by the Ricardo-H-O theorem. As it is well known, this is a common evil of much of mainstream economic theory in general, in such a way that one could doubt that confronting with reality be one of the fundamental scientific criteria of this branch of knowledge. This is an important question with worrying consequences for the scientific credibility of economic science. So that once that the internal lacks of the mainstream theory are pointed out, it is taken into consideration the Orati's new approach to found the international trade theory on radically different bases with respect to the R-H-O but also with respect to the heterodox models in such a way to interpret the real world's evidences (underdevelopment/development polarization, Leontief's paradox, increasing of the international trade volume between the developed countries compared to the trade dimension between these countries and the underdeveloped ones) in a rigorous manner. To reach it Orati intends to solve the genesis of the problem of the *peculiar* division of international labour according to the free and perfect competition of the capitalistic mode of production.

Introduction

The history of the contraposition between the supporters of the mainstream theory of international trade -who refer to the Ricardo and Heckscher-Ohlin contribution - and the heterodox currents of thought is well rendered by the contraposition between the universal law of the benefits arising from international trade, affirmed by the former, and the tendency, through trade, towards an increasing development/underdevelopment polarization among countries, maintained by the latter. The Heterodox models meet problems arising from the fragility of their own analytical framework or from the naivety of the attempt to produce an "unequal exchange" (A. Emmanuel, S. Amin) from the mainstream comparative costs hypothesis. As we will see, the latter can only lead to the harmonic conclusion of overall and mutual benefits from international trade based on comparative advantages. This is the reason that has pushed Orati to seek for an alternative theory that interprets the real world problems in a rigorous manner.

Ricardo's Comparative Costs Theory: aims and limits

The classical theories of international trade had as their main purpose to demonstrate the benefits of free trade as a universal law. In this sense they denied any ground to Mercantilism's central message that a surplus of exportations over the importations, with the difference compensated by an inflow of precious metals, would have been the way to reach a dominant economic position amongst nations, the main aim of the political economy. Throughout the 19^o century Great Britain was experiencing a spectacular economic development and most of the economists did not hesitate to ascribe that to the virtues of free trade. Not only: the English supporters of this doctrine were ready to claim the general and absolute benefit of it. The prominent position of its industries and the possibility to import cheap raw materials from other countries called for the international free trade doctrine. However, the period that elapses from the Congress of Vienna (1815) and 1846, the year of the abolition of the import duties on corn (*Anti Corn Law*), cannot certainly be considered as a period characterized by free trade in the world. Only after the 1846 Great Britain can be said to initiate a free trade policy followed by very few other countries. So according to Bairoch¹ Great Britain's predominant position must be interpreted as consequence of protectionism rather than free trade.

In this climate Ricardo developed his theory of comparative (advantages) costs with the aim to base the motives for countries to trade on very large ground. In doing so:

a) He dealt exclusively with a "welfare standpoint" (the consumption goods enjoyment) to ascertain the benefits of international trade, i.e. international trade increases the quantity of goods that a country as whole can consume at the same costs (labour-value). As this is in individual sphere he is not considering the peculiar consequences on employment – which is a national prerogative - that remains always at a full level before and after the passage to the free trade. Differently from Smith's pin manufacture, no considerations on technology are pointed out.²

b) The "welfare standpoint" is the consequence of the barter logic that is a characteristic of the classic system, at least in two ways: on the methodological side, this means that Ricardo's theorem can be explained separately from the monetary aspects, and on theoretical side it has as consequence to consider economically illogical any unidirectional exportation, that is to say any exportation act that does not have any importation of goods as swap, because it would mean losing the welfare of the imported commodities.³ This upsets the logic of mercantilist thought.

These two considerations are well expressed by the following quotation from the beginning of the 7th chapter of Ricardo's *On the Principles*:

"No extension of foreign trade will immediately increase the amount of value in a country, although it will very powerfully contribute to increase the mass of commodities, and

¹ See P. Bairoch, *Economia e storia mondiale*, Milano, Garzanti 2003. ² See V. Orati, *Bhagwati's Groundless Position against Protectionism*, mimeo ³ All this renders the analytical tool of the reciprocal demand particularly suitable for the representation of theorem.

therefore the sum of enjoyments. As the value of all foreign goods is measured by the quantity of the produce of our land and labour, which is given in exchange for them, we should have no greater value, if by the discovery of new markets, we obtained double the quantity of foreign goods in exchange for a given quantity of our's."⁴

Namely the demand for both national and foreign goods is limited by the domestic income, that in terms of labour-value remains the same. On the welfare side, the amount of goods that it is possible to consume after the international specialization and trade in each country is greater than autarchy.

Although Ricardo aims to build his model on capitalistic grounds we can affirm that his theory is affected by a sort of "naturalism". What does this mean? Ricardo considers labour as the only homogeneous production factor in the two countries. Hence where do the different productivities in each countries, in absence of capital, come from? He says that country A (England) produces X clothes employing 100 men for a year and Y wine with the work of 120 men for the same period. Country B (Portugal) produces X clothes employing the work of 80 men and Y of wine employing 90 men, both for a year. But we cannot draw out any explanation regarding why Portuguese labourers are more efficient than English ones. In other words, without any reference to capital and technological considerations on the productivity side, the explanation for the international labour-values gap can only be based on "naturalistic grounds", linked to territorial differences. But this is a not an economic explanation.

Another negative consequence for the theory of labour-value arises from a characteristic that the Ricardo Theorem shares with others classical schemes of international trade, what Schumpeter called "a distinct theory of international value" and well expressed by the author's statement:

"The same rule which regulates the relative value of commodities in a country, does not regulate the relative value of the commodities exchanges between two or more countries"⁵

It follows that the international terms of trade are different from domestic ones expressed by labour-values that remain the same before and after the international specialization and trade, as we have said. The rule of which Ricardo speaks is the competition force that does not act on the international market as consequence of the immobility of capitals assumption:⁶

"The difference [between the international and domestic relative value], in this respect, between a single country and many, is easily accounted for, by considering the difficulty with which capital moves from one country to another, to seek a more profitable employment"⁷

⁴ D. Ricardo, *On Principles of Political Economy and Taxation*, in P. Sraffa, M. Dobb (eds.), *The Works and Correspondence of David Ricardo*, The Royal Economic Society, Cambridge University Press, 1951, vol. I, p.

⁵ *Ibidem*, p. 133 ⁶ We can borrow from Cairnes' *Some Leading Principles* terminology by saying that in the domestic market a "industrial competition" exists, and on international market a "commercial competition"⁷ D. Ricardo, pp. 135-6

The Modern Theory

The modern theory of international trade lies its foundations on the extension of an Eli Heckscher's article written in 1919, titled "The effect of commercial trade on distribution and income". This article was enriched by his pupil Bertil Ohlin who included it in his famous work "International and Interregional trade" (1933). This neoclassical model is deemed as an appendix of the Ricardo's competitive costs theorem. But whilst Heckscher believes in the possibility to harmonize his model with Ricardo's, his pupil Ohlin does not deem that it possible at all⁸. In this paper we cannot deepen further this open question. Here we speak of "Ricardo-H-O model" with regards to two aspects: in both theorems the difference between the relative prices of goods is the evidence of the existence of comparative advantages; the existence of the different comparative costs (advantages) gives rise to the mutual convenience for the trading countries, in other words is the rational ground to trade.

The classical model affirms that productivity of labour (the only factor) is the cause of these advantages, but it does not explain the cause of these different productivities. The H-O theorem has two main purposes:

- a) to ascertain the causes of the different comparative costs
- b) to determine the effect of commercial trade on the factors productivity

In doing that it takes into consideration labour and capital as well, differently from the classical approach, which as we have seen takes into consideration only labour as a production factor. The H-O model adds to the hypothesis that shares with the Ricardian model - i.e. full employment of production factors, perfect mobility of factors between the two domestic branches but immobility between the countries - many others. Here we will consider in particular two, which aim to explain point a) above:

- 1) the two countries have different relative labour and capital endowments – this does mean, if we have two countries, A and B, and describing capital and labour endowments respectively by K and L , that $(K/L)_A > (K/L)_B$;
- 2) the two countries have access to, and apply, the same production technologies.

So, whilst in the Ricardian theorem the comparative advantages lie on the unexplained different productivities of the homogenous labour, the H-O model in presence of the two hypothesis above finds out the causes of comparative advantages in the descending different factors price. Indeed for the Rybczynski effect the transformation curve in a country is distorted towards the good which is intensive in the relatively abundant factor.

Hence from the different transformation curve arising from the different factors endowments draws out the relative supply curve in the two countries.

⁸ See W.R. Allen, *International Trade: Hume to Ohlin*

It follows that, if the relative demand (RD) is identical in the two countries (A and B) then relative price of good X (good labour intensive) in terms of Y (good capital intensive) in autarchy is lower in B than A (figure 1):

$$P_{X/Y}(A) > P_{X/Y}(B)$$

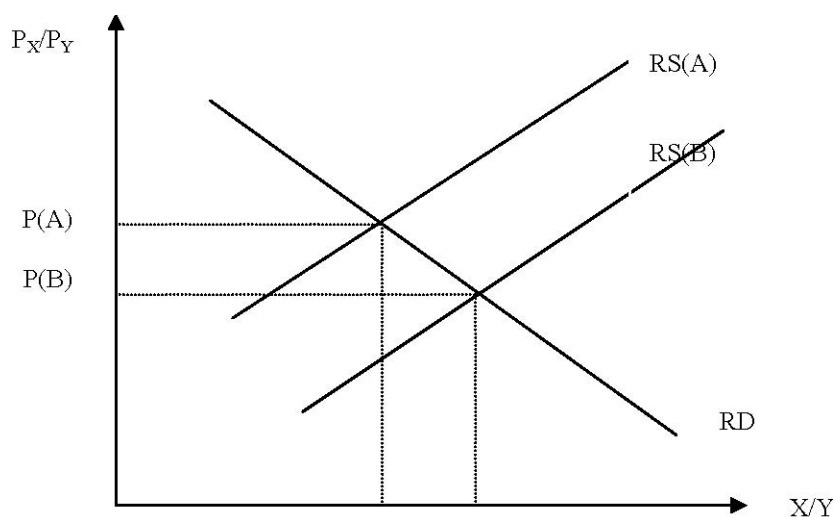


Fig 1

The country A (relatively more capital endowed) has a comparative advantage in the good Y (capital intensive) and the country B (relatively more labour endowed) in the good X (labour intensive), that is, each country has productive benefit in the good intensive in the relatively abundant factor. So a country exports the good whose production needs an intensive use of the relatively abundant and cheaper factor in the domestic market, and import the good whose production needs an intensive use of the relatively scarce and more expensive one in the domestic market.

Being the H-O a neoclassical model, the “welfare standpoint” is dominant, with the introduction of the “indifference curve of utility” that are assumed as identical and homothetic. But from this a problem for the theorem raises, that is the impossibility to confront the “indifference curves” that constitute the two Paretian equilibriums, in the autarchy and after the opening to international trade, as a consequence of the change that occurs in the vector of relative prices.

As regard point b), Samuelson has established in a rigorous manner that the H-O assumptions lead to the equalization of relative and absolute remunerations of homogeneous production factors between the countries through the international trade. This

⁹ This is the argument by which Scitovsky turned down Kaldor’s attempt to refound the New Economic Welfare (see *A Note of Welfare Propositions in Economics*, “Review of Economic Studies”, IX, 1941).

because if the country A specializes in the production of good X (labour intensive commodity) and reduces the production of good Y (capital intensive commodity), the relative demand of labour increases, and an increase of wages follows, whilst the relative demand of capital decreases, reducing its remuneration. Vice versa for the other country. But this reasoning hides the loss of full employment in the country that specialized in the capital intensive commodities hence it denies one of its fundamental hypotheses. In fact if we imagine that the labourers are shared in the production of X (labour intensive commodity) and Y (capital intensive commodity) in the country B in autarchy, after the openness every unit of capital that switches from the production of the former good to the latter one releases a greater number of labourers than the ones who are absorbed.

In conclusion, it is possible to affirm that the H-O theorem has the same main consequence as Ricardo's theorem - even if they have their roots in different paradigms and different demonstrative devices – namely, international trade is mutually profitable for the two countries *ab imis*. Thus free trade is an eternal philosophy, interrupted exceptionally by protectionism.¹⁰ This convenience is grounded for both theorems on the gap between the comparative costs. Last but not least, both theorems are affected by a sort of “naturalism”, because although the H-O model deems to have explained the causes of comparative advantages, overcoming the Ricardian theorem, in reality they are assumed by hypothesis laying them on a *given* relative factors endowments –capital is treated as natural factor as much as land, that is to say nothing is said about its different accumulation in the two countries.

Mainstream Theory Implications

In what in the literature has been called the “Ricardo-Heckscher-Ohlin” theorem there is no room for technology change. The production functions in autarchy and after openness to trade in the two countries are perfectly the same: in brief any dynamics analysis is missing. Obviously, this is particularly penalizing for a model which aims to capture the capitalistic economy that is dynamic *ex definitione*.

Secondly, its exclusive “welfare standpoint” implications do not take into consideration the analysis of the productive repercussions that can occur to the countries’ economies from free trade – for example the effects on employment, the dependence from the foreign production. This makes any protectionist policy towards the foreign goods illogical, although this policy has had a great room in the economic history of the nations.

Thirdly, the harmonic consequences of the mainstream model leads to the denial of any role for international free trade in the development/underdevelopment polarization phenomenon. On the contrary, for the Ricardo-H-O the international trade has a larger ground, because it is more mutually profitable than autarchy, the larger the gap between the relative costs between the countries is. Besides, the more the trade goes on, the more there will be a levelling in the relative and absolute costs of factors, and hence a balance between the countries terms of trade: in short a convergence of the respective performances. As a

¹⁰ P. Bairoch, *op. cit.*, demonstrates, that on the contrary, the protectionism has been the rule and the free trade the exception.

consequence there will also be a progressive reduction of the advantageous grounds to trade. In other terms the trade dimension between two countries with the same degree of development is smaller than the one between a developed and an underdeveloped country. This, evidently, is a paradoxical conclusion if faced with reality.

The heterodox theories have criticized the harmonic consequences that arise from this mainstream line of thought, trying to give account of the progressive gap between the economies of the trading countries. The difficulties met by most of these alternative patterns consist in their analytical fragility – above all Emmanuel’s theory of “unequal exchange” – or in the fatal error to seek to found an “unequal exchange” conclusion on the same comparative costs theorem basis (S.Amin). As we have seen the results growing out of the R-H-O theorem are the diffusion of welfare between the countries that take part to the international trade.

In this respect Orati has tried to ground the problem on radically different bases with respect to the R-H-O but also with respect to the heterodox models that accept its starting point: the presence of the comparative advantages between countries. To reach it Orati intends to solve the genesis of the problem of the *peculiar* division of international labour according to the free and perfect competition of the capitalistic mode of production, whilst the passage from an autarchy state to the open economies is simply assumed by the R-H-O theorem that establishes the *ab ovo* convenience to trade.

The Novelty of Orati’s Approach

Since from the static framework of the comparative advantages theorem can only derive a mutual gain for the trading countries, there is no room for the progressive deterioration of the terms of trade. But the problem of development and underdevelopment, and the process of polarization, is dynamic in nature, a process that unfolds along time, it is not a phenomenon verified a once and for all. Within the boundaries of the R-H-O theorem the effects of international trade are thoroughly independent from the domestic economic performances of the different countries. In fact the economic performances would concern the theory of a closed economy. The exchange on the international market is merely in a position to raise the welfare through the increase of the quantity of goods that a country can buy with the same overall productive effort. That is particularly clear in the first quotation. According to Orati this is a consequence of the static nature of the mainstream comparative costs theory.

Therefore the first problem Orati deals with is to build a *dynamic* model of international trade.

Secondly, this problem, is joined with the further theoretical exigency to give account to the beginning of an open capitalistic economies that is presupposed by R-H-O.

In fact the economic difference between the trading countries cannot be chosen as the starting point of the theoretical challenge represented by the mechanism through which the development of a country induces the underdevelopment of the other. Indeed, the different economic structures must be considered as the effect to explain, not the cause, otherwise we would fall in the logic fallacy of *petitio principii* (“vicious circle”) according to which, in case of different levels of development that need to be explained, the “demonstration” is given by hypothesis! “On the other hand, starting with a condition of

perfect identity between the commercial partners in a dynamic or capitalistic meaning, can give account of the entire hierarchy of the degrees of the development amongst the international trading partners”.¹¹

The thesis by which Orati joins the two theoretical exigencies is founded on the key role that is played by technological breakthroughs in the capitalistic *modus operandi*. Orati, coherently with what precedes, assumes as his starting point two identical countries, that is to say: the “exotic” good are not considered, namely, the two countries produce the same commodities by the same technologies, the goods are produced by same costs, even if the production scale can be different. This involves that the countries do not have any economic reason to trade, justifying the autarchy state as starting point. Thanks to the further presence of the Marxian “industrial reserve army” the two autarkic economies can grow by a same steady rate (in terms of K/L) in inter-sector equilibrium between the consumption goods sector and industrial goods sector (“steady state growth”). This allows to have a dynamic representation of countries economy that represents the other requisite to find out a radical theoretical alternative. Therefore, what will be the cause of the openness of the countries economies to the international trade?

The introduction of “epochal” labour-saving innovation involves an inter-sector equilibrium breaking off, with the consequence of an absolute overproduction of consumption commodities.¹² The reader has to take into account that the importation of the crisis is a macroeconomic consequence of the atomistic or individualistic behaviour that is in line with the precept of “rational choice”. We can suppose that the country A gives rise a technological labour-saving innovation in the industrial goods sector. As a consequence there is an expulsion of labour from the innovator sector, by which a decrease of equilibrium consumption demand compared with the equilibrium consumption goods supply arises. Hence, the domestic consumption goods prices will decrease, becoming cheaper than those of country B. In other words, the openness to the international market is for the country A an opportunity to discharge the overproduction effects ensuing from the “epochal” innovation introduction upon the country B, and for the country B is an opportunity to buy goods at a lower price, even if this will lead to the importation of the crisis. In this perspective it becomes possible to explain the passage from an autarchy state to the open one on singular countries reason, without resorting to a super-national plan logic implicit in the mainstream theory.

In fact on the ground of the comparative costs logic a judgement is implicit in terms of opportunity-costs that escapes from the single country sight, that calls for a “super national” organism that decides about the passage from autarchy to international exchanges.¹³ Whilst in the alternative theory, the rational choice to trade lies on the “beggar my neighbour” logic that is doubtless closer to the capitalistic logic. In this case, country A can hope to rescue its domestic economy by damaging the economy of country B. So the asymmetrical effects of the international trade become clearer: positive for the developed countries that have a more dynamic economy, negative for the underdeveloped countries, the economy of which is advisable to defend by a protectionism policy.

¹¹ Orati, *Globalization scientifically unfounded*, Esquire Publications, Bangalore, India, 2003, p. 17 ¹² For a deeper analysis of Orati’s theory of crisis see Orati, *L’anomalia della stag-flation e la crisi dei paradigmi economici*, Liguori, Napoli, 1984 e Orati, *Il corto(circuito)*, Isedi, Torino 1992. ¹³ See Orati, *Materiali per la seconda edizione di Globalizzazione scientificamente infondata*, mimeo.

Orati makes a further specification as regard the effects of the overproduction “contagious” between the country. In fact he does not exclude the possibility that the crisis could hit both countries even if the “epochal” innovation takes place in one of the two. In general the two countries will be different in terms of national income. So if we suppose that country A (innovator country) is in absolute value greater than the country B, the exportation of the crisis will cease its own effects on B. But in the limit case in which we admit the substantial identity between the two countries, then we could assist at the diffusion of the crises in both countries (in this case the deflation in B could have a drawback on the economy of A). But also in this latter extreme case, there is room for the gap between the economies of the two countries. In fact the international trade has weighed on the two economies producing a deflation phase in both countries, at the end of which, in phase of economy restarting the innovator country will benefit of “its best technology that in capitalism scenario is not a free good”¹⁴. Hence:

“And if this happens we will assist at the beginning – in theoretic term – to the phenomenon of the uneven development of the two countries. On the other hand *a fortiori* this phenomenon will occur if the two countries have different absolute values of the main economic parameters that are presupposed to be equal in A and B, and A can “beggar its neighbour” in a unilateral way”¹⁵

In absence of trade, in the short run, country A would have the crisis, B would keep growing.

Theory(ies) and Reality

The comparative costs theorem becomes the dominant principle in international trade theory in spite of a series of empirical questions that belie its conclusions or are not taken into account by the Ricardo-H-O theorem. As it is well known, this is a common evil of much of mainstream economic theory in general, in such a way that one could doubt that confronting with reality be one of the fundamental scientific criteria of this branch of knowledge. This is an important question with worrying consequences for the scientific credibility of economic science. More and more economic theory loses its face for the politicians and the economic actors who judge it as a refined but useless play of abstract reasoning or formulas from which to draw, at most, a generic appeal to the free market as panacea of any ill.

Here we are not going to state that a theory able to interpret reality is a simple and not problematic task, but what is surprising it is the attitude towards the neoclassical

¹⁴ Orati, *Globalization scientifically unfounded*, Esquire Publications, Bangalore, India, 2003, p. 62 ¹⁵ *Ibidem* p. 62.

failures. In short, it seems that the mainstream theory instead of seeking solutions goes on looking at itself in a mirror narcissistically, waiting for the world to adjust to the theory's exigencies.

At this point we must add to the paradoxes we have already met - among which the increase of trade between developed countries compared with trade between these countries and the capitalistic underdeveloped countries, that clearly denies the comparative costs theorem, stands out - we can consider an exemplary one: Leontief's paradox.

In 1951 Wassily Leontief tested the H-O theorem by using the input/output table of the U.S. economy for 1947. In order that the survey support the theory, the outcomes would have had to show an export of high capital intensity goods and an import of high labour intensity goods, the U.S.A. being a country relatively abundant in capital. Leontief did not have data relative to the import of goods in the U.S.A., so he had to make do with data of the substitutes of importation - that is to say the goods that a country imports but that also are in part produced at home because of the partial specialization. Leontief rightly argued that even if the substitutes of importation were certainly produced with a higher capital intensity than the actual importation goods (since K was relatively cheaper in the U.S.A. than in foreign countries), they would have been produced with a lesser intensity of capital than U.S.A. exportation goods if the H-O model was right.

The outcomes of Leontief's test were surprising. The U.S.A.'s substitutes of importation were about 30 % at higher capital intensity than the exported goods. In other words the U.S.A., the country relatively more abundant in capital, exported goods produced by a higher labour intensity productive techniques and imported the higher capital intensity goods.

The test clearly denied the H-O previsions. The attention was shifted on the "sensitive" year chosen for the test, that was judged excessively near to the war. So another empirical survey was carried out, taking as reference the 1951 data (considered the year of the end of post-war reconstruction). The new outcomes cut down the gap between the capital intensity of the exported goods and the substitutes of importations at 6 %, confirming the paradox.

What were the consequences on the credibility of the H-O theorem? Nothing but a mess of remarks about the distortions of Leontief's tests - for example it is charged not to have included the abstruse statistical measure of human capital among the capital, or not to have taken into consideration the natural intensive goods, or again according to a Kravis' survey (1954), of not having considered the distortion on the Leontief's test by the USA protectionism on the its higher labour intensive enterprises.¹⁶ We cannot enter here the subject of the statistical remarks that has many delicate aspects, but what it is worth noting here is the "structure of the scientific resistance" of economics.

The story of the Leontief paradox is an exemplar story of how the statistical data are tormented in such a way as to compel them to "confess" in favour of the rescue of the H-O theorem, in a sort of upsetting of the scientific method: it is reality that must adhere to the theory rather than vice versa.

Orati's theory provides an explanation, in line of principle, for Leontief's paradox. As we have seen in a very simplified version, in fact the innovator country that introduces a labour-saving innovation ends up exporting the consumption goods (i.e. the goods that are

¹⁶ But it would be necessary to explain in what manner the H-O theorem justifies the presence of protectionism: it is easy, since reality is far to the theory!

produced by a more intensive labour productive techniques than the manufacture sectors goods). Orati in his model does not assume different capital and labour endowments, for the theoretical exigency to explain at the roots the gap between the countries, but it is quite obvious that the innovator country by introducing the new technology with a higher capital/labour ratio can be considered the most capitalistic advanced one and relatively more abundant in capital than labour.

Orati's theory of international trade is only a further step of a theoretical pathway that takes its beginning from the resolution of the central problem of the economy theory, i.e., the possibility to represent an economic world in equilibrium (equilibrium in the quantities exchanged between the sectors; the same rate of profit) with more than two goods (produced by different productive techniques, i.e. by different capital/labour ratios)¹⁷. In the history of economic analysis this is a common trouble for the two opposed currents of thought on the subject of value: the Classical-Marxian tradition and the neoclassical one. It is not the purpose of this paper to go into this topics but it is worth noting it, as most of the troubles of the economic science have origin in this most fundamental unsolved problems. So, we conclude this paper putting off where the story would have to start!

¹⁷ See Orati, *Produzione di merci a mezzo lavoro*, Liguori, Napoli, 1984

Ricardian Comparative Costs Theory and the Heckscher-Ohlin Theorem: a Critical Appraisal

Considering the central rule that the Ricardian comparative costs (advantages) have in this book, and since not everybody interested in the theme of globalization might have had the opportunity to study this argument, or might have forgotten its content, we shall give a brief presentation of it and of the Heckscher-Ohlin theory. Some considerations will follow to why we refer in our work rather than to the “Neoclassical synthesis” (H-O) to the Ricardian legacy. In fact, in providing the essential groundings, we will show that the former, apart from the shortcomings it shares with the Classical approach, counts many others, including the serious one of showing ignorance of the theoretical difficulties compelling Ricardo to keep consciously within the amoebic limit of his model. Such difficulties are far from being solved by Ricardo’s illegitimate marginalistic epigones (and by all the others), despite being smuggled as resolved. Since all this, as we shall see, leads to the impossibility to represent the H-O model, taking account of the great analytical “thoughtlessness” and of the correlated “provincialism in the time” by the hegemonic holders of the “economics” orthodoxy, we will justify the little room we have made for the H-O approach in the first edition of this book, in the light of the central concepts involved in the this work, which transcend the international economics boundaries, condemning marginalism as a whole.

The comparative (advantages) costs

The reasoning that leads Ricardo to the famous theorem by which a ground to the theory of international labour division and hence to the theory of exchange in the international market (namely an “open” economy against to a “closed” economy, that is an economy without exchanges with any foreign partner) is given, follows from these hypothesis:

- 1) For the sake of simplicity we have two nations (A and B), but the theorem also extends to the case of n exchanging countries with $n > 2$, that produce two goods (X and Y, respectively), produced with different techniques; each good is homogenous to the correspondent other in the two countries, which produce them by the same technology (as regard the number of goods, the theorem is valid and extensible to more than two goods)
- 2) The production factors are reduced to a sole factor, that is a homogenous labour in both productive contexts and, as for the matter, we know, the wage is a subsistence wage.
- 3) The productive factors, capital (even if it has no analytical role in the theorem) and labour are not mobile from a country to the other: only the goods can be imported (exported)
- 4) Both in A and in B there is full employment (especially of labour)
- 5) Gold is the international means of payment, in a *gold standard* regime
- 6) The absolute value of production in A and B need the same “productive effort”, namely the same number of units of productive factor (labour)
- 7) The labour-value theory is valid
- 8) Transport fees are not considered

The thesis to demonstrate from these hypothesis is that, if there are different comparative costs of X and Y, namely, if A and B have a better comparative productivity in the production of one or (both) the two commodities, they export towards the other the good where the advantage (cost) is relatively greater (a lower cost) than the commercial partner, obtaining a mutual benefit. Underlining that it is not the absolute value of production of good X and Y to determine the condition for the exchange and for the reciprocal benefit for A and B. The condition for this can be written:

$$\frac{Y_A}{X_A} \neq \frac{Y_B}{X_B} \quad [1]$$

and the condition of missing mutual lacking by:

where Y_A , X_A , e Y_B , X_B are respectively the absolute quantity of Y e X respectively produced in A e B, taking

$$\frac{Y_A}{X_A} = \frac{Y_B}{X_B} \quad [2]$$

in both countries, in our case, the good X (it will be the same thing for Y) as *numeraire*, i.e. as measure of the relative “price” of the other commodity (always in terms of labour-value), expressed in terms of the good assumed as money (commodity-money or *numeraire*).

The condition [1], a notable case, known as “Ricardian paradox”, is valid in the case in which it results that one of the potential exchanger produces absolute value both in X and Y greater than the other. The comparative costs theorem – to reaffirm the relevance of relative value and not of absolute ones – is valid whether there are the following possibilities too:

That is

$$\begin{cases} Y_A < Y_B \\ X_A > X_B \end{cases} \quad [3,2] \\ \begin{cases} X_A > X_B \\ Y_A < Y_B \end{cases} \quad [3,1]$$

We suppose, as a general case, that the production of X (cloth) and Y (wine), both of them needing one unit of (homogenous) labour in A and B, is as indicated in table 1:

Countries	A	B	Total
Clothe (m)	600	500	1100 m
Wine (hl)	150	250	400 hl

From which follows that in A and B respectively the cost of cloth in terms of wine is 600/150 and 500/250, that is in A 1 unit of wine is exchanged by 4 units of cloth and in B the same unit of wine is exchanged by 2 unit of cloth and again, that the comparative costs of clothe in terms of wine are in the ratio of 4/1 e 2/1 respectively in A and B. All that is represented in the following graph:

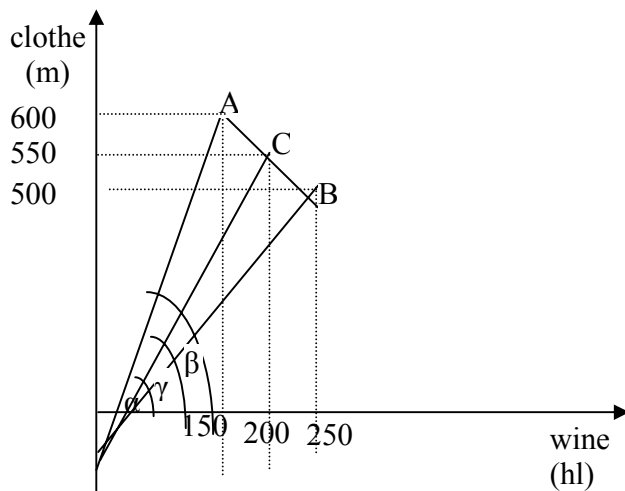


figure 1

It will be immediately established that the combination for the exchange and the ensuing specialization between A and B is fulfilled, resulting A relatively more productive than B in the manufacture sector and, vice versa, that B will be relatively more productive in agriculture. For A and B is profitable to export towards the other respectively cloth (importing wine) and wine (importing cloth) with any term of trade between 4 and 2 (extreme values aside), allowing to A to obtain a greater quantity of wine against one unit of clothe e vice versa for B with respects to the domestic terms of trade before the reciprocal opening of the markets. So if the new terms of trade in the international market are fixed at point C (angle γ) where 550 units of clothe are exchanged with 200 units of wine, namely if the terms of trade are fixed in ratio of 2,75 unit of clothe for 1 unit of wine, with the exchange A will save (will gain) 1,25 units of clothe and B will save (will gain) 0,75 unit of wine by buying respectively wine and cloth, with respect to the preceding situation of autarchy. Figure 1 displays what we have just said. Here by a simple inspection it is showed that in C the

country B gives less wine (200 hl) obtaining more clothes (550 m) in the international exchange with respect to the domestic exchange by which 500 m of cloth was exchanged against 250 hl of wine. Symmetrically, country A exchanges a lesser quantity of cloth (550 m) for a greater quantity of wine (200 hl) in comparison with the situation preceding the opening of its market to the ex/import, where 600 m of cloth was trading with only 150 hl of wine.

It is worth noting that the fixing of the terms of trade to international level between AB is not indifferent for the two traders: the nearer the terms of trade will be to the domestic terms of trade (before the trade) of a partner of one of the two countries and the greater the convenience of the latter one will be to trade. We also know that from this it is impossible to derive any traditional theory which aiming to explain the unequal development between A and B bases itself on the international division labour logic following from the Ricardian approach. The individuation of the C point in figure 1, that is to say the establishing of the international terms of trade depends on the mutual demand of the trading countries (on this aspect Ricardo's theorem was supplemented by J.S. Mill).¹

It is also worth noting that the Ricardian approach, since it resorts to the expedient of making absolutely indifferent producing the two goods by one sole and same factor, labour, excluding capital, avoids the complications arising from the different capital/labour ratio in the two productive sector ("transformation problem"). Thanks to this simplification the passage – that in time remains not explained (*regressus ad infinitum* fallacy) – from autarchy to "open" market allows the keeping of full employment both in the case of total specialization and in partial specialization one. But, on the other hand, the hard cost of this procedure in theoretical terms consists in the fact that the Ricardian theorem can not give account of a capitalistic economy where the improvement of technologies expresses itself *ipso facto* in the changing of the terms of trade in the international market. Hence Ricardo's extrapolation remains without ground, as we have seen, in relation to the wages/profits ratio in the framework of an economy that tends to globalization. To this aim it is necessary, as we know, to solve the problem of the representability of an economic system with at least two commodities produced by means of different techniques (different capital/labour ratio) and in balance, particularly with regard the existence of only one and same rate of profit in both productive sectors.

As regards the decision to resort to a total or partial specialization, the criterion to take into consideration consists to assure - or not - by means of specialization an increase of the total production of the quantity of the two goods in both the countries or at least in one of them, holding fast the overall quantity in the other (the transportation costs are still not considered). If this is possible total specialization is the most profitable. Otherwise, only in the case of the "Ricardian paradox", it will be possible and it will be profitable partial specialization in the country where the productive performances in absolute terms of produced quantity of two goods is greater than in the other (always respecting the inequality in the relative comparative costs).

3 □ □ 3 □ □ 3 □ □ 3 □ □ GE

¹ J.S. Mill, *Principles of Political Economy*, (1848), Longmans, Green & Co., London, 1909, Book III, chapter XVII e XVIII. With regard for the example of the text (table I), if the terms of trade between the countries A and B are within 2 and 4, the role of reciprocal demand in the individuation of the international terms of trade of equilibrium between A and B can be displayed by the following figure 1.1, where on the ordinates are just the domestic terms of trade (prices) in each country and on the abscissas the demanded quantities of clothe by B toward A and the demanded quantities of wine of A toward B.

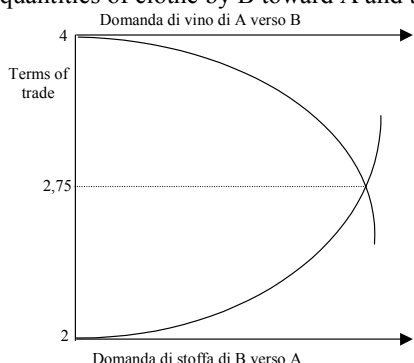


figura 1.1

Mill specifies that as particular case one of the two traders can find suitable import from the other even in the case in which the "price" of the good in the international market is equal to the domestic one. The causes of this can be found in the strategic role of the good in question and/or constraints of limitation in its domestic production and/or the consumers' tastes etc.

In graphical terms the “Ricardian paradox” is showed by the positive slope, not negative at all, of the AB segment (ω angle) displayed in figure 2. This exemplifies a “paradoxical” case:

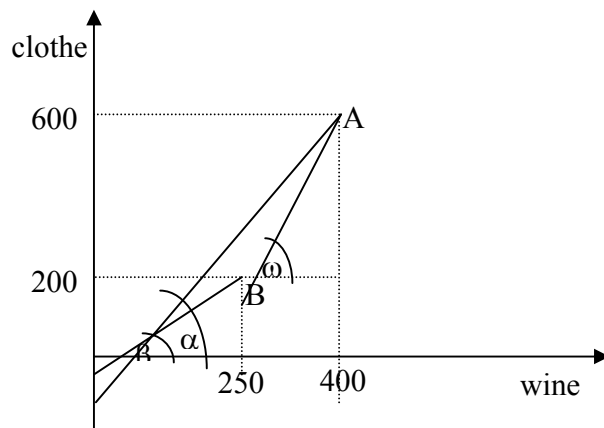


figure 2

In our example, for the general case, total specialization is assured by the consideration that with it after trade the produced quantities of both commodities overcome the quantities of commodities produce before specializing

Tab 2

Countries	A	B	Total
Clothe (m)	1200	-	1200 m
Wine (hl)	-	500	500 hl

The same is not the case for the latter example. Here before specializing the total quantities produced are not produced again as can be seen in tab 3 and 4.

Tab 3

Countries	A	B	Total
Clothe (m)	600	200	800 m
Wine (hl)	400	250	650 hl

Tab 4

Countries	A	B	Total
Clothe (m)	1200	-	1200 m
Wine (hl)	-	500	500 hl

To maximize the volume of trade (mutual benefit) needs complete specialization of B, that leads to a production of 500 hl of wine. This corresponds to the destination of 3/8 of the resources of A in relation to the resources before sets aside for the production of wine in order to get 150 hl of wine to balance the domestic total consumption exchanging its own cloth with wine imported by B towards exporting cloth according to the new international terms of trade, mutually convenient. Therefore partial specialization will lead to the following productive performances in the two countries (see tab. 5)

Tab 5

Countries	A	B	Total
Clothe (m)	975	-	975 m
Wine (hl)	150	500	650 hl

In this situation the exchange gets 375 hl of wine against 250 m of cloth between the terms of trade 1,5 and 0,8.

It is worth noting that it is implicit in the example just developed and in the linked theory (it is ignored in the “literature”). The convenience to trade is grounded on the assessment of cost-opportunity criterion at aggregative level that recalls an enrichment of the Ricardian institutional framework that goes back necessarily to a “central authority”, in other words to a state or national entity or “planning authority”, able to decide the passage from an autarchy regime to international trade after having verified the convenience for the potential commercial partners to trade.

Heckscher-Ohlin theorem (H-O)²

The H-O model, developed by Bertal Ohlin (1933) on the basis of its first formulation by his teacher Eli Heckscher (1919) aims, in the words of its first proponent, to find out (as we have seen), “the *reasons of differences in comparative costs among countries*” which are not explained by “Ricardo’s still valid theory of foreign trade”³

These reasons are found out by Heckscher in the fact that “the prerequisites of initiating trade” lie in the “different relative scarcity, i.e., different relative prices of factor of production in the exchanging countries, as well as different proportions between the factors of production in different commodities”⁴ In other words, the antecedent that explains the different comparative costs between the two (or more) countries lies on the double condition:

- 1) different prices of production factor as consequence of the different endowment or scarcity (proportion) of the two factors inside the countries
- 2) different combination among the productive factor (different production function *alias* different capital/labour ratio) in the production of the two goods in both countries that open to the international trade; countries that apply the same technologies needed by the production of each of the two different commodities. If we express these two goods by A and B each of them are produced in both countries by the same capital/labour ratio, ratio that it is different with regard to A and B (respectively greater and lesser than 1)

the double condition above said has in the different relative scarcity or endowment of the factor of production, on the supply side, in the domestic context above said (this is displayed by the gap in the ratios between the productive factor prices in the two countries) the analytical element the H-O theorem consists in and that allows to distinguish, “enriching it”, from the Ricardian comparative costs theorem.

In order to demonstrate the Ricardian arcane of the different comparative costs, other than the twofold condition just seen, the H-O model needs the following hypotheses:

- 3) free and perfect competition within the two countries (we will consider two countries for the sake of simplicity, but the model is valid for an indefinite number of traders and commodities) expressed with I and II from now onwards.

5□□5□□5□□5□□5□□GE

² Let us use indifferently the diction “Heckscher-Ohlin model” or “H-O model” and “Heckscher-Ohlin theorem” or “H-O theorem”. In the literature some author distinguish assuming that the “model” is the one that demonstrates that the final outcome of trade is the equalization of the production factors, whilst the “theorem” would show that each traders will export the good utilizing intensively the productive factor of which it is relatively more endowed than the other. The first of such a thesis will be assumed here as “corollary” of both the “model” or “theorem” as synonymous.

³ E. Heckscher, *The Effect of Foreign Trade on the Distribution of Income*, in *Ekonomisk Tidskrift*, XXI (1919) reprinted in English in H.S. Ellis-L.A. Metzler (editors), *Readings in the Theory of International Trade*, The Blakistone Co., Philadelphia (now R.D. Irwin, Inc.) 1949, p. 277 (italics in the original). B. Ohlin, *Interregional and International Trade*, Harvard University Press, Cambridge (Mass.), 1933.

⁴ E. Heckscher, op. cit., p. 278 (italics in the original).

- 4) There is full employment equilibrium of the resources ;
- 5) Transportation and similar costs are absents;
- 6) Identical and homothetic (the quantities demanded grow proportionally to the increase of income) preferences on the consumption side in I and II;
- 7) Constant returns to scale;
- 8) Two goods two goods both in I and II two goods, A and B, each of them is qualitatively homogeneous (indistinguishable) to the correspondent good produced in the other country, and the productive factor that are employed in the production have to result qualitatively homogenous as well (homogenous labour in I and II, homogeneous capital in I and II);
- 9) Productive factors are not exportable or transportable;
- 10) Demand is set equal to the supply (of produced goods);
- 11) The production factors are not produced;
- 12) Prices equals the production costs;
- 13) Factors mobility inside each country (not transferable outside, as we have already said)

In order to show the H-O model ,we refer to the tab. 6. Here, as in the following, we refer with regard to the prices to the greatnesses relative to 1 unit of produced good, that mirror at microeconomic level in scale the proportion between the greatnesses of the factors of production at absolute levels (different proportions as well as there are different endowment of such factors within each country).

Tab 6⁵

	Price of the factors in I	Price of the factors in II	Quantities of factors in 1 unit of A	Cost (=price) 1 unit of A in I	Cost (=price) 1 unit of A in I	Quantities of factors in 1 unit of B	Cost (=price) 1 unit of B in I	Cost (=price) 1 unit of B in II
Capital ©	4 €	3 £	10	40 €	30 £	6	24 €	18 £
Labour (L)	10 €	4 £	5	50 €	20 £	9	90 €	36 £
Total				90 €	50 £		114 €	54 £

For a rate of exchange 2€=1£ (pound, from now onwards) both constrained inequality, namely the relative factors prices (2/5≠3/4) and the capital © and labour (L) ratio in the production of A and B (2≠2/3) are fulfilled, so it follows that the prices of production (equals to the production costs) in I and II are respectively in a different proportion as well. In the light of that, the H-O model affirms that country I exports towards country II the good A (45<50) and imports the good B (57>54), and vice versa.

The limits of the terms of exchange will be represented by the terms of the prices ratio expressed in the respective national currency €90/£50 e €114/£ 54, that is to say, in the exchange rate between these currencies that equal the respective prices: €1,8/£1, in the case of the good A and €2,11/£1, in the case of good B.

We should point out, *en passant*, that the immobility of the productive factors (hypothesis sub 9) translates in the exigency to indicate their price in terms of the domestic currency. Thus it is only the mutual demand in terms of A and B between the two countries to fix the assumed rate of exchange. We can pass to a formal treatment of the analysis of the two conditions that allow the bilateral opening of the market I and II.

We can start, first of all, observing that the ex/import flow between I and II requires the difference between the domestic prices of the pair of commodities A and B, namely, by indicating with P_{AI} and P_{AII} the price of good A respectively in I and II and with P_{BI} e P_{BII} the price of B in the two countries I and II, this condition will be indicated by the following inequality:

6□□6□□6□□6□□6□□GE

⁵ Table 6 is used by P. Ellsworth, *The International economics*, Macmillan, New York, 1964, pp. 92-95 and used again by W.R. Allen, *International Trade Theory: Hume to Ohlin*, from which here is retaken, with some changes, together quotations by Heckscher e Ohlin, in the text, which follows Allen in the exposition of the H-O model.

If we admit that the price of the good is set equal to its cost, and the cost is obtained by the sum of

$$\frac{P_{AI}}{P_{AII}} \neq \frac{P_{BI}}{P_{BII}} \quad [1]$$

the remuneration due to the productive factors, in other terms, by the prices of the productive factors multiplied by the respective quantities needed for obtaining 1 unit of good, then establishing the following notations:⁶

a = labour price in I;

b = labour price in II

c = capital price in I;

d = capital price in II

e = quantity of labour in 1 unit of A;

f = quantity of labour in 1 unit of B

g = quantity of capital in 1 unit of A;

h = quantity of capital in 1 unit of B

we can write [1] in the form :

To have [2] we intend to demonstrate that this condition is fulfilled if both conditions of a different

$$\frac{ae + cg}{be + dg} \neq \frac{af + ch}{bf + dh} \quad [2]$$

ratio between capital and labour (or labour/capital) in the production of A and B, i.e., $e/g \neq f/h$ (o $g/e \neq h/f$) [3] and that of a different ratio between the price of labour and price of capital (or vice versa) in I and II, i.e. $a/c \neq b/d$ (o $c/a \neq d/b$) [4] are fulfilled.

In other words, we want to demonstrate that the [1] is fulfilled if and only if [3] and [4] are verified. For our purpose we rewrite [2] by multiplying the numerator and the denominator of the expression on the left hand of the [2] by e/g and the numerator and the denominator of the expression on the right hand of the inequality by f/h , that's:

$$\frac{a\left(\frac{e}{g}\right) + c}{b\left(\frac{e}{g}\right) + d} \neq \frac{a\left(\frac{f}{h}\right) + c}{b\left(\frac{f}{h}\right) + d} \quad [2.1]$$

Resulting so clear that [2.1] is fulfilled as [3] is satisfied:

$$e/g \neq f/h \quad [3]$$

But [2] can be rearranged in the following way:

$$\frac{ae + cg}{af + ch} \neq \frac{be + dg}{bf + dh} \quad [2.2]$$

And [2.2] can be written:

$$\frac{e\left(\frac{a}{c}\right) + g}{f\left(\frac{a}{c}\right) + h} \neq \frac{e\left(\frac{b}{d}\right) + g}{f\left(\frac{b}{d}\right) + h} \quad [2.3]$$

that is fulfilled as consequence of [4]

$$a/c \neq b/d \quad [4].$$

In conclusion, [2] is verified if [3] and [4] are fulfilled, that's the double condition that allows, without assuring them, the bilateral exchanges between I and II.

A further demonstration of what we have just demonstrated is possible by showing that, if only one of [3] and [4] is fulfilled, any reciprocal opening to the international trade is not possible.

Hence if $e/g = f/h$, in [2.1], this means that the goods A and B are produced by the same productive technique (the same labour/capital ratio *ergo* capital/labour) whether in I or in II; we are dealing with the same good produced at two different productive scales. Since the returns of scale are constant (hypothesis sub 7) the country which produces A at lowest cost will produce at lowest cost B as well, and so it is in a position to export both commodities towards the other country.

7□□7□□7□□7□□7□□GE

⁶ W.R. Allen, op. cit., pp. 30-31.

To go deeper, to understand which is the potential exporter of both commodities, we have to take into consideration the ratio between capital and labour expressed in proportion between productive factors, that is through their different relative prices (according to the different endowment of such factors). If this proportion expresses the greatest capital/labour ratio then it will be the country where the capital is relatively more plentiful than labour, that is where capital cost is relatively lesser than labour cost, that exports both A and B towards the other (in the case of table 6 it is country I). Vice versa, when we have the other ratio, which states a higher intensity of labour than capital. In this situation it will be country II that exports towards the other both A and B. Another case in which the inequality [2] is not verified can occur if instead of being fulfilled the [4] and not the [3] the contrary happens: that is, we have different ratios between the factors in the production of A and B, but we have the same ratio between the costs of production in I and II.

As in this circumstance capital and labour cost is in the same ratio in I and II, the country where the ratio between capital and labour cost is lower than those of the partner could export both goods towards the other. Hence in the case that lower absolute cost than competitor implies necessarily the lower absolute costs of the other labourer good too. We will see as the case just examined are not the only ones by which H-O excludes the international trade division.

From what we have just seen it would be wrong to deduce that the verification of inequality [2] constitutes, besides a *necessary* condition for the mutual exchange between international partners, also the *sufficient* condition.⁷ In fact if it is true that these bilateral exchanges presuppose the [2] (*necessary* condition) it is not true the contrary, and namely [2] is not a *necessary* and *sufficient* condition in order that the markets of the two countries open to the mutual ex/import flows.

If in fact, differently from the exemplification of tab. 6, instead of assuming that the good (A) has a capital/labour ratio > 1 and the other (B) a capital/labour ratio < 1 we assume that both A and B are produced either by a capital intensive ($C/L > 1$) or labour intensive ($C/L < 1$) productive technique, holding fast the difference of these ratios and the different proportion between the prices of respective productive factor as well, there will be potentially a unidirectional flow of exportation for both commodities of only one country towards the other. In particular, if both goods have the capital/labour (C/L) ratio greater than 1 the potentially exclusive exporter country of A and B will be the one where the price of capital with regard to labour will be lower than at the same ratio between these prices in the other country. It will be the latter country that potentially exports towards the first one both A and B in the case in which these commodities are both produced with labour intensive productive techniques ($C/L < 1$). With regard to tab. 6, holding fast everything else, if one unit of good B calls for 7 units of capital and 4 of labour, it will be the country I that exports potentially both goods towards the other country. On the contrary, if the quantities of capital and labour in the production of one unit of A and B (respectively in A and B the capital/labour ratio is 5/10 and 4/7) are inverted, it will be country II that exports potentially A and B towards country I.

The case just examined is by far the most relevant one. We can understand its relevance only after having explained the specification of “potential” unidirectional flow of exportation from one of the two countries towards the other one that has hitherto accompanied the indication of this phenomenon.

Exhausting the economy of I and II in the production of an identical couple of different goods, each of them being obtained by recurring to the same technique in the both countries, the unidirectional flow of exportation of both goods by one of the two partners towards the other is impossible. In fact these exportations must be financing by the so-called “capacity of importation” of the (other) importer country and this “capacity of importation” is given exclusively by its exportations. Hence this it follows that unless the bilateral flows of ex/import neither I nor II can exclusively exporting without importing, and vice versa.

Here the relevance of the latter examined case, or, in other words, the only *necessary* but not also *sufficient* condition fixed in [2] in the H-O theory framework. Condition, that we remember, substantiates this theory, aiming to individuate the “prerequisites of initiating the trade” (Heckscher) between the two countries; that’s to say to discover what is implicit but tacit in the Ricardian comparative costs theorem. In fact it is at the light to the impossibility of exchange between the countries marked by a relatively abundant endowment of capital with regard to labour, even if in a different proportion, mirrors in a different proportion between the prices of capital and labour, and is this that constitutes the paradox, previously indicated, for which the trade among

8□□8□□8□□8□□8□□GE

⁷ The discussion on the *necessary but not sufficient* nature of the [2] about the possibility of exchange is not found out in Allen’s book. About the question see R. Jones, *Factor Proportions and Heckscher-Ohlin Theorem*, in <Review of Economic Studies>, vol. 24 (1956-57).

the capitalistic “advanced” countries is along the time more intensive respect to the trade among “advanced” countries and the capitalistic “backward” countries. The empirical data in fact deny this theoretical conclusion, that is in the reality is strongly sustained by the most striking corollary of the H-O theory.

This corollary consists of the observation of the consequences induced by the opening to the bilateral trade by the two countries in the “remarkable” case represented in the table 6, where the goods A and B are produced respectively by capital intensive ($C/L > 1$) and labour intensive ($C/L < 1$) productive techniques. In the table 6, the country I with relatively abundant capital endowment with regard to labour exports the good (A) produced by capital intensive receipt, and imports the good produced by labour intensive technology from the country II relatively more labour endowed than capital (this H-O theory corollary, *en passant*, is the ground of the “Leontief’s paradox” previously examined).

Well, the specialization that arises from the reciprocal market opening just reminded (I specializes in the production of the food A and II in the production of good B), changes the previously assumed equilibrium between the productive factors prices in both countries.

In country I we will have unemployment (“free labour”) as consequence of the flow of capital (all or partial is not relevant here) from the sector that produces by labour intensive technology (good B) to the other one (where the good A is produced by capital intensive technology). This leads to an decreasing of the labour cost.

The contrary is true in the country II that specializes evidently in the production of good B (labour intensive) by the passage of capital from the production of A towards B. This increases, relatively to the previously equilibrium, the price of labour with regard to capital. So the gap that marks in both countries of the production factors prices ratio tends to decrease along the time until zero, levelling the endowments of the productive factors in the two countries, up to the stop of international trade.

This as consequence of the failing of the inequality [4] together with the conditions relative to the impossibility of one-way flows of exportation (importation) the consequences of which we have analysed previously.

Coming back to the paradox of the more intensive trade between the capitalistic “developed” country than among these and the capitalistic “underdeveloped” country, it meaning is evident. At the light of the corollary above just said, we would have to assist to a progressive decreasing of trade among “developed” countries compared with the trade among this latter countries and the euphemistic termed “developing countries”. Let alone resounding failure of the optimism implicit ‘partners in the international market as regard the phenomenon of the increasing polarization between the developed and underdeveloped countries. Optimism tied to the fact that the latter would have, according to H-O theory, levelling in tendency the endowment of capital compared to the formers. Capital endowment that is equivalent to the capitalistic rank of a country, namely its development degree. On the contrary, not forgetting the “Leontief paradox”, the reality denies the “official” H-O theory recording a rare leadership of scientific untenability.

But it is not the only empirical verification criterion of the “comparison with reality” that the H-O theory undergoes an unheard-of falsification.

Even before this criterion should to be valid, that one of the its own, hitherto not suspected, theoretical inconsistency, it is the case to discuss. That of which we pass to deal with.

The theoretical insubstantiality of the Heckscher-Ohlin (H-O) theorem; namely, about the impossibility of equilibrium between the terms of trade.

The H-O model is an authentic exemplar of how the Neoclassic school, coinciding substantially with the official economic science, conceives the way with which to make science: a sort of parlour game where the likelihood of the hypotheses and of the conclusions of its “theorems” not answer to any verificationist methodological criterion of cogency. And where often the same hypotheses are changed in the course of the trying to demonstrate the own theses. In other words, other than the substantial reject of any criterion of empirical verification also the “methodology” is extravagant from the point of view of the closely scientific proceedings, for the fact to assimilate the lacking of internal consistency of own theoretical activity to the poetic “licences” in the pure literature field.

Since the remarkable and unavoidable position worth that the H-O model holds in the overall framework of the Neoclassical paradigm, of which forms no less the foundation in matter of international economics, it will

be sufficient showing the validity of the announced critique to it to understand the scientific relevance of the question.⁸

About the lacking of full employment equilibrium presupposed by H-O Model

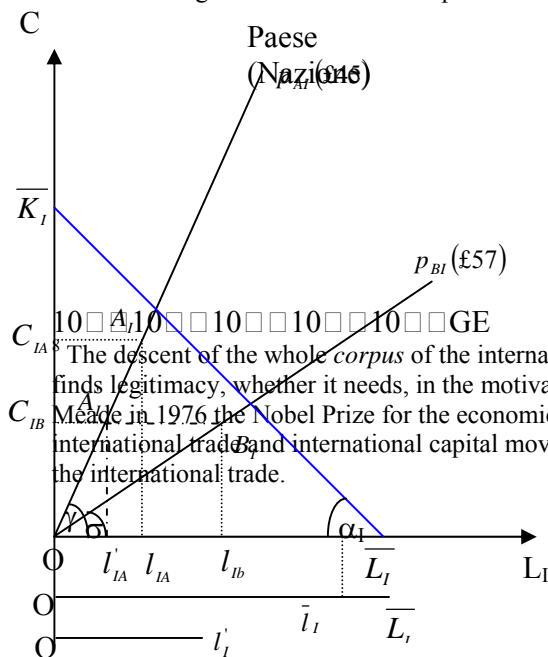
At the careful reader will not escape the importance of the equilibrium hypotheses in the H-O theory ambit (hypotheses sub 4 and sub 10). The uppermost equilibrium we allude is, among the other, that of full employment. At this aim it is worth noting that also if the H-O theory is centred on a microeconomic analysis, having as subject the inputs relative to a sole unit of produced good, from the Neoclassical standpoint this reproduces in a reduced scale (at unitary level) the (macroeconomic) performances of the economic system as a whole and its equilibriums conditions, among which the main is that of full employment. This means the exigency to get to, exactly through the full employment of capital and labour, the singling out of the *prices* of equilibrium either of productive factors or of the goods produced; with the aim to fix the equilibrium's prices of the latter in the domestic market. Prices that – differently to the case do the Ricardian comparative costs theorem – are identical to the international terms of trade, i.e. prices of exported and imported goods (evidently let them comparable by the exchange rate of respective national currency). The circumstance for which the terms of trade must be constituted on the equilibrium price it's evident, unless denying the same fact of their comparability. That the employed resources (production factors) act at level of full employment is a prerequisite of the fact for which are in equilibrium the prices of the goods that these factors of production concur to produce. All that premised and cleared, what we intend to demonstrate is that, once ascertained the possibility of the international trade and so the consequent potential specialization of the two partner countries, this international division of labour needs necessary the abandon of the hypotheses of equilibrium and mainly that of full employment.

If this is true it follows that it is the same H-O model to contradict one of its own essential hypotheses, without that this has been known by its founders and suspected by avalanches of following commentators, incurring into a crass violation of an universal and elementary criterion of the logic and of the science: the coherence of the argumentation during the demonstrative procedure.

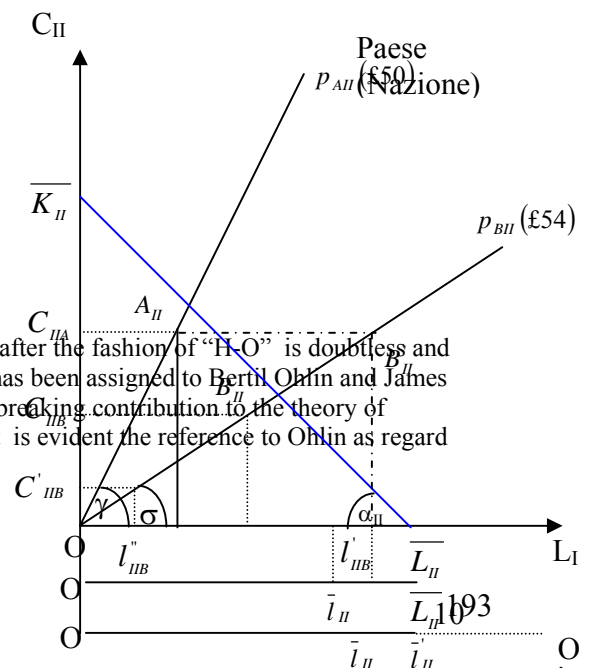
It is important that the relevance of the theme leaves doubtless. At this aim it is worth while to argue more cogently. Also because only in this way it can possible to evidence as the H-O model crashes down just when it considers itself authorized to have demonstrated the same condition of the "open sesame" of the hitherto closed markets of the potential international traders.

In other words, we will show as the H-O model is compelled to deny so far its beginning the international division of labour phenomenon, that's to say the opening to the exchanges of the closed markets: namely it means that such model is compelled to the self-destruction as scientific theory.

At the aim we propose, it is useful translate in a graphical form the numerical exemplification of the H-O model represented in table 6; with the added hypothesis for which the two units of goods A and B produced in each country require in both countries the full employment of disposable capital and labour (with the qualification we will see), without that this hypothesis could alter the generality of the conclusions we will obtain with regard to the more different productive scale.



The descent of the whole *corpus* of the international economics after the fashion of "H-O" is doubtless and finds legitimacy, whether it needs, in the motivation by which it has been assigned to Bertil Ohlin and James Meade in 1976 the Nobel Prize for the economics: "for their pathbreaking contribution to the theory of international trade and international capital movements", where it is evident the reference to Ohlin as regard the international trade.



193

figura 3

In figure 3, respectively in figure 3.1 e 3.2, we report the data relative to country I and II with the following meaning of the symbols.

[5] $C_{IA} = C_{IIA}$ units of capital needed for the production of 1 unit of A in I and II

[6] $l_{IA} = l_{IIA}$ units of labour needed for the production of 1 unit of A in I and II

[7] $C_{IB} = C_{IIB}$ units of capital needed for the production of 1 unit of B in I and II

[8] $l_{IB} = l_{IIB}$ units of labour needed for the production of 1 unit of B in I and II

[9] $C_{IA} + C_{IB} = \bar{K}_I$ quantity of total capital employed in I

[10] $C_{IIA} + C_{IIB} = \bar{K}_{II}$ quantity of total capital employed in II

from [5] e from [7] it follows also that $\bar{K}_I = \bar{K}_{II}$ [11]

$$\frac{C_{IA}}{l_{IA}} = \frac{C_{IIA}}{l_{IIA}} = \gamma \quad \text{capital/labour ratio in I and II for the production of A [12]}$$

$$\frac{C_{IB}}{l_{IB}} = \frac{C_{IIB}}{l_{IIB}} = \sigma \quad \text{capital/labour ratio in I and II for the production of B [13]}$$

$O_I = O_{II}$ quantity of total labour employed to produce A and B in I and II [14]

\bar{L}_I disposable units of labour for the production of A and/or B in I [15]

\bar{L}_{II} disposable units of labour for the production of A and/or B in II [16]

$\bar{L}_{II} > \bar{L}_I$ [17] by hypothesis

$$\frac{\bar{K}_I}{\bar{L}_I} = \alpha_I \quad [18]$$

$$\frac{\bar{K}_{II}}{\bar{L}_{II}} = \alpha_{II} \quad [19]$$

that's

$$\alpha_I > \alpha_{II} \quad [19.1]$$

the [18] [19] and [19.1] arise from [11], [15] e [16]

from [18], [19] e [19.1] it grows out the following hypothesis:

$$\frac{PC_I}{PL_I} < \frac{PC_{II}}{PL_{II}} \quad [20]$$

where PC_I and PC_{II} is the price of capital in I and II respectively

and PL_I and PL_{II} is the price of labour in I and II respectively

the [20] translates the concept of relative scarcity of capital compared to the labour, different by hypothesis in I and II, so that it is the consequence of the [19.1].

PA_I e PA_{II} cost (price) of 1 unit of A produced respectively in I and II

PB_I e PB_{II} cost (price) of 1 unit of B produced respectively in I and II.

These prices ($PA_I < PA_{II}$) and ($PB_I < PB_{II}$) are obtained in the graph by one suitable unit of costs (prices) measure by superpose its value to the production curve of goods A e B in I e II.

The graphical model proposed in figure 3 resolves a question that has had a great room in the literature relative to H-O theorem.

In the Ohlin's original version, the definition of relative abundance (or scarcity) of factors is grounded on the ratio between the factor prices of the two country in autarchy. In other terms, Ohlin believes absorbed and fulfilled the difference between the endowments of above-mentioned factors in following relation:

$$\frac{PC_I}{PL_I} \neq \frac{PC_{II}}{PL_{II}} \quad [I]$$

namely in the different ratio between the capital factor and labour factor prices in I and II. Many scholars recur, on the contrary, to an explicit relation between the physical quantities of the productive factors to express the different endowment we are talking about, i.e.:

where the greatness as denominator regard the total population employed and as numerator we have

$$\frac{\bar{C}_I}{\bar{L}_I t} \neq \frac{\bar{C}_{II}}{\bar{L}_{II} t} \quad [II]$$

represented the total invested capital, providing that the two countries are different in absolute dimension in the above-said variables. In other words in this last approach the *disposable* labour is not distinct from the *employed* labour.

In the graphical model represented in figure 3, we have aimed to deduce the first relation from second assumption, through the rule played by the difference between the *employed* labour and the *disposable* labour in both the countries, basing the whole on the concept of full employment that doesn't mean from the technique-economic standpoint the full employment of the total *disposable* (potentially disposable) population offered in the labour market at all: it is the quantity of *disposable* (or *disposable*) and *full employed* capital that rations the *disposable* labour in its share of *employed* (employable) labour. Hence, assuming that the two countries above have the same endowment of capital (in the different structure and level of development between commercial partner we will take account later) and a different quantity of *disposable* labour we can assume the relation [II], by hypothesizing in a completely right manner in terms of the demand and supply "law" (in a exquisitely Neoclassical spirit) that the country where the quantity of *disposable* labour faced to the fully employed (employable) labour results relatively more abundant than the other country, so that here the labour is relatively cheaper than capital. It is not important that the in both contexts the capital is assumed in the same absolute quantity: in a ratio it is sufficient that one of the two terms varies to change the ratio itself.

(regards the complications deriving from the assumption [I] at the place of the [II] and vice versa see R. Jones, *Factor Proportions and the Heckscher-Ohlin Theorem*, <Review of Economic Studies>, vol. 24, 1956-57).

At this point is still suitable to precise that the full employment hypothesis is not denied by the presence of *disposable* labour but *not employed* either in I or in II (respectively equals to $O\bar{L}_I - O\bar{l}_I$ e $O\bar{L}_{II} - O\bar{l}_{II}$), with the first greatness lesser than the second one, in order to translate consistently the assumed relative scarcity of the production factor presents in I and II that – evidently – with the same quantity of total employed capital ($\bar{K}_I = \bar{K}_{II}$) makes I the country relatively more abundant in capital than labour faced with the country II and, vice versa, II the country relatively more abundant in labour than labour faced with the country I.

In fact the concept of full employment is *relative* and it is referred with no doubts to the *disposable* resources but those that are actually combinable and combined in the production process. Therefore it is evident, since it is the quantity of capital the parameter that finds out the level of development, namely the actually employed resources of a given economic system, that it is just the capital to fixes the highest level of labour employment, leaving aside the excess of this variable with regard the *total disposable and employed* capital (we can say that it is the capital that rations the share of *disposable* labour, fixing as a consequence the level of maximum employment *reachable* acting as limiting factor). On the other hand all this follows the basic assumption for which within the factors of production the capital is the only *not original* factor.

It is just the case to precise that the segment $\bar{K}_I \bar{L}_I$ e $\bar{K}_{II} \bar{L}_{II}$ (respectively in figures 3.1 and 3.2) and the relative angles α_I e α_{II} , reproduce (in terms imposed by the analytical exigencies) the absolute (macroeconomic) ratio between total used capital and *disposable* labour and that the following $\bar{l}_I \bar{L}_I$ and $\bar{l}_{II} \bar{L}_{II}$ identifies in its turn the excess to *disposable* labour for the total quantity produced in A and B at any

scale of production (the production function in I and II for A and B is homogenous of first degree). This is as such as saying that it is known the incidence of “overpopulation” per capital quantity required for producing at any scale one unit of A and a unit of B (because is known the absolute greatness of the ratio between the total capital and total population). It’s as much useful to understand that the eventuality of a partial specialization between the trading countries depends upon the absolute quantity of A and B produced in I and in II.

Where the total specialization doesn’t allow to reach at least the production standard of A and/or B produced before the specialization, the partial specialization would impose itself (the case of an exchange between a great and a much smaller country than the first is the typical case).

All this lay down, the graph displays the reciprocal competition of I and II to specialize respectively in the production of A and B. At this point in I the quantity of capital employed in the production of B has to transfer into the sector where is produced A. To understand the consequences of this transfer we have drawn the parallel to the abscissas starting from the point B_I until the point A_I' . Switching the capital from the production of good B on A where is higher the capital/labour ratio ($C_{IA}/l_{IA} > C_{IB}/l_{IB}$) results evident that at the parity of employed capital a quantity of labour equals to the segment $Ol_{IB}-Ol_{IA}$ that’s the total employment, after the specialization, is $Ol'_{IA}+Ol_{IA}$ that is lesser the preceding $O\bar{l}_I$ ($Ol'_I < O\bar{l}_I$).

It must immediately pointed out that further to manifest at any productive scale level the *lacking of the full employment in I it is verified also in the case there is not total specialization in the production of A*: the degree of specialization will determine only and exclusively the magnitude of labour that remains unemployed, that so happens also in the case of a partial specialization.

Even if it would be sufficient at this point to have accepted that only I passing from autarchy to the trade with II meets the lack of the hypothesis of full employment, in order to have demonstrate our thesis about the impossibility of a trade between I and II at the *equilibrium* domestic prices (of full employment), it is worth noting the consequences of the opening of II to the international trade.

That as we will see reinforce the preceding conclusion at the light of our exemplification and of the considerations that impose themselves later.

Therefore, passing from the figure 3.1 to the 3.2, the reasoning is analogous to that we have just seen in relation to the consequences of the international division of labour as regard the country I. This time it is a question to observe the consequences of the transfer of the capital from the sector producing the good A to the sector that produce the good B. From the point A_{II} on the curve OP_{AII} we have traced the parallel to the abscissas up to intersect the curve OP_{BII} in the point B_{II} and from here the parallel to the ordinates up to intersect the abscissas corresponding to the point l'_{IIB} . As it is possible to note already through this transfer of the capital from the production of A to the production of B (with the latter market by a lesser capital/labour ratio than the former) we will have an increase in the employment level that overcomes the full employment in II in an autarkic state ($Ol'_{IIB} > O\bar{l}_{II}$). But this level will be fatherly overcome taking account of the labour already employed in the production of B, in measure to wear out the overall availability of labour ($O\bar{L}_{II}$), even considering the labour frees in the sector A, and hence impossible to repeat in the specialization regime of the production of B.

At this point not all the capital destined to the production of B in autarchic state can be employed as ($Ol_{IIB}+Ol'_{IIB} > O\bar{L}_{II}$) there is not sufficient disposable labour to combine with all the disposable capital. Hence the only disposable quantity of labour will be $O\bar{L}_{II} - Ol'_{IIB}$ that reported on the abscissas in correspondence of the production curve of B, that’s OP_{BII} , will determine OC'_{IIB} the quantity of capital with which combine and since $OC'_{IIB} < OC_{IIB}$, in II will be the capital previously used not to be in a position to be completely employed ($OC'_{IIB} + OC_{IIA} = O\bar{K}'_B < O\bar{K}_{II}$).

Also in this circumstance can’t be a partial specialization of II that can keep here a precedent level of maximum employment, it can possible only played on the trade-off (antagonistic substitutability) between the greater utilization of capital and lesser resort to the previously unemployed labour.

Considering that our critique towards the H-O theorem has his irremissible moment in the only demonstration of the *necessary* lacking of the hypothesis (conditions) of full employment condition, where the country, that is relatively more abundant in capital, specializes in the production of the good more intensive in capital, it is important to note that in abstract is not to consider as *general* the outcome of the specialization arising from our exemplification in the country relatively more abundant in labour than in capital.

If, in fact, in the latter it is given the situation of a (substantially) “unlimited supply of labour” *à la* Lewis (with a enormous basin of *hidden employment*) not necessary we record what happens in our case; namely the

insufficient availability of labour suitable to sustain the total specialization in the production of the labour with more intensive labour.

In analytical terms what results deadly for the consistency of the H-O theorem is the *limitational* (which *rations*) position value undertaken by the *capital* and not by the “disposable” labour one, in the definition of the different productive factors *endowment* between potential partners in the international trades.

In spite of we have just said it is possible in an economic logic key to assign to our example an reliable degree of generality also as to the “complications” that we record in the country relatively more abundant of labour than capital.

In this sense what it is important taking account is the implicit reference by the H-O theorem to the economic structure of the countries that characterizes its analytic framework. Analytic framework that it seems to exclude that one of the two potential *partner* corresponds to the characteristics of the “Lewis’ model,” namely where there is a (substantially) “unlimited labour supply”. This exclusion is in fact implicit in one of the hypothesis that the H-O theorem cannot be given up, where this assume the same productive techniques in the two compared economic contexts.

Well, if the international division of labour, of which the H-O theorem intends mainly to explain the cause, want to be significant in absolute terms and not only in marginal ones, then the access of both countries to the both productive techniques, and chiefly to that more capital intensive, in a relevant manner for marking the passage from the economic structure in autarchy to the one after the specialization, ought to exclude that one of the countries appears before trading with a morphology typical of the underdeveloped countries. Morphology that corresponds to the hypothesis of an “unlimited supply of labour” (*disposable*). In other terms if the H-O theorem aims to have a character of relevance - for reaching the which a first condition to fix is that of a significant (proper) difference between the capital intensity among the productive techniques of the two considered goods – and intends accordingly to give account of significant changes on the economic morphology of the single countries consequent to the *epochal* passage from the autarchy to the free trade, it increases its degree of theoretical vulnerability. Showing a not suspected constraint to its level of relevance: one of its central hypotheses (same productive techniques in the compared countries) refers implicitly the assumption of an already happen “previous accumulation” (of the capital) in the two economic scenarios, that’s to say to a their comparable rate of economic development. That it is here translate in a comparable, also if different, level of employed labour with respect to *disposable* one.

But by means of which the theoretical complications increase in the sense of our example, that it can pretend to have a character of generally also for what happens in the disequilibrium that regards the country relatively more abundant in labour in the case of specialization.

This last source of analytical weakness – not essential of the holding of our query – is certainly avoidable by the H-O theorem that however has to renounce to the criterion of *relevance*: it can, substantially, assign the character of underdeveloped economy to the country relatively more endowed of labour than in capital, renouncing however to give a “strong” character to the central hypothesis of same productive techniques in the two compared economies. In the “underdeveloped” country the production of more capitalistic intensive good would have a “formal”, “symbolic” character, it means, it would regard a share not significant of the economic structure, but through which the passage from the autarchy to the free trade would lose any theoretical relevance. Thus confirming the marginality of the “marginalistic” approach.

It is worth noting as the graphical representation of the H-O model used is suitable also for emphasizing the corollary that would arise from the theory subtended to this model in relation to the fact that the specialization would tend to equalize between I and II the starting different relative endowment of the productive factors with the progressive cessation of the trade in the international market.

In fact the specialization of I in the production of A with the lacking of the full employment and chiefly of the labour at the parity of capital used, will depreciate the former faced with the of II. Vice versa it happens in II, where the demand of more labour to employed and the decrease of the employed capital will depreciate the capital with regard labour.

En passant it is clear that in I and II will be the progressive rationing effect of the relatively less abundant on the relative more abundant one to lead to the equalization above-mentioned.

Finally it rests demonstrated as we aim: the H-O model crashes down as soon as it is tried to show the possibility and accordingly the reciprocal convenience of I and II to pass on from a autarchic state to a free trade state, since the prices of internal equilibrium that ought to assure the passage to the international trade *ipso facto* are no longer the same to the opening of the respective markets. It would miss the prerequisites for such exchanges: the equilibrium prices on which rests these exchanges!

Even if further on we will try to confront them, it appears evident and justified the choice in the first edition of this book to assume the only Ricardian theory of the comparative costs to dialogue with the foundation of the overall international economics. The limits of the latter one explicitly underlined by Ricardo, we can anticipate, especially if they can be ascribed chiefly to what the following economic science has freely intended extract *versus l'obiter dictum* of Ricardo himself, are not comparable with the theoretical insubstantiality of the presumed complement and/or completion to the legacy of the latter represented by the H-O theorem. Insubstantiality that it is important to note can and must be extended to the whole Neoclassical paradigm of which this theory constitutes the very foundations on the essential side of the whole doctrine of the international trade.

At this aim it has to hold duly in account that in the H-O model the equilibrium of full employment of the resources is only an aspect of the general equilibrium that must be presupposed in order the international exchanges take place at the domestic equilibrium prices of the goods potentially exportable. Besides the producers and consumers equilibrium *individually* conceived (in coherence to the Neoclassical epistemological approach of the *methodological individualism*) further two conditions of equilibrium ought to be fulfilled. It is the question of intersectorial equilibrium that must be maintained in the domestic exchange between the produced goods and that of the equilibrium corresponding to the only rate of interest (profit) in sectors that produce the goods.

H-O model doesn't respect both these equilibriums!

In particular the problem of the sole rate of interest (profit) on the capital as rate of equilibrium of the whole economy is together with the equivalent at all – *except excipiendis* – “problem of the transformation of values into prices” in the Classical-Marxian school boundaries, a problem absolutely unresolved by the “official” economic theory.⁹ Problem that constitutes the point of theoretical crisis of the economic science always and that authorizes us to affirm, without fear of denial, that the whole powerful structure of the economics cannot rigorously give account but an economy with only one good. Therefore the scientific irrelevance of all its analytical lucubration.

The way by which *uno actu* the H-O theorem – perfectly in line with the analytical style by which the economic science is made nowadays – thinks to rid of the two equilibriums here discussed is represented by the hypotheses sub 4, 10, 11, 12 (respectively affirming that the full employment is keeping; that the demand is equal to the supply; that the production factors aren't in their turn produced; that the prices are equal to costs). By this disappears by spell the problem of the intersectorial equilibrium and that of a same rate of interest (profit) for the capital also in presence of two commodities produced by a different capital/ labour ratio. Capital that since it has not to be reproduced in its time it will makes irrelevant the problem of the unresolved question at all for which its yield ought to be the same in the whole system.

It is important to point out the reader that through the scientific licence (?), actually improperly “poetic”, the “official” economics allows itself what the same mainstream economy didn't allow to the Classical-Marxian paradigm, judges “ruinous” because it has not resolved the analogue problem that is here believed resolved: by hypothesis!

It is particularly worth noting what follows to understand the theoretical price that the Neoclassical paradigm, by means of H-O model, is compelled to pay in order to go around the enormous and unsurpassed analytical drawbacks just mentioned.

First of all it seems clear that the economic system represented by the H-O model does not represent in *essential* way a capitalistic economy.

The first circumstance to point out in this sense is the fact that that the prices are assumed as equal as the costs of the production factors. Most specifically the costs are equal to the remuneration sum due to the productive factors and this remuneration (prices) result to be respectively the marginal productivities of labour and capital.

Well, from the fact that the prices of the commodities are set equal to their costs arises that there isn't a positive excess of the first on the latter so to configure a form of *surplus* (compared to the input) that in terms of profit (interest) can determine from it the rate, in its turn the same in the productive sectors marked by a

15□□15□□15□□15□□15□□GE

⁹ The solution in “evolved” marxian terms of the “problem of the transformation of the value into prices” has been provided by us in V. Orati, *Produzione di merci a mezzo lavoro. Per la riabilitazione della teoria del valore-lavoro e la ridefinizione epistemologica della scienza economica*. Saggio attraverso Marx, Keynes e Schumpeter in occasione di un triplice centenario, cit.

different capital/labour ratio. Therefore it is immediately to deduce from this that without profit there aren't capitalists then capitalism.

In second place, that the economic system included in the framework of the H-O model doesn't correspond with the market logic is understandable in the fact that here meanwhile there is a capital and labour supply, under the form of *datum*, set by hypothesis equal to the demand – in the limits, as regards labour, of the disposable capital – there is not market of these factors that – always by hypothesis- are not reproduced by the economic system.

In third place, the exigency of productive factors remunerations equal (that not overcome) to their marginal productivity is an unavoidable technique exigency from the economic logic point of view in general: not goods would be reproducible if the productive factors remuneration would overcome their marginal productivity. So also here the capitalistic market is not the exclusive instance that calls for this condition.

Besides, also the full employment hypothesis doesn't concern in a privileged way the only capitalistic market (where moreover the full employment is far to represent a condition of stable equilibrium): that the disposable and employable productive factors are full employed represent a criterion of efficiency of any economic system where is valid the “no satiety axiom” and the postulate of resources scarcity faced with needs .

But before to go on it must subject to a diligent screen *l'escamotage* by means of which the Neoclassical theory believes to overcome or go around the central question of the same rate of interest (profit) in the representation of a economic system where (at least) two goods are produced by different productive techniques or a different capital/labour ratio. It is worth particularly with regards the H-O theorem.

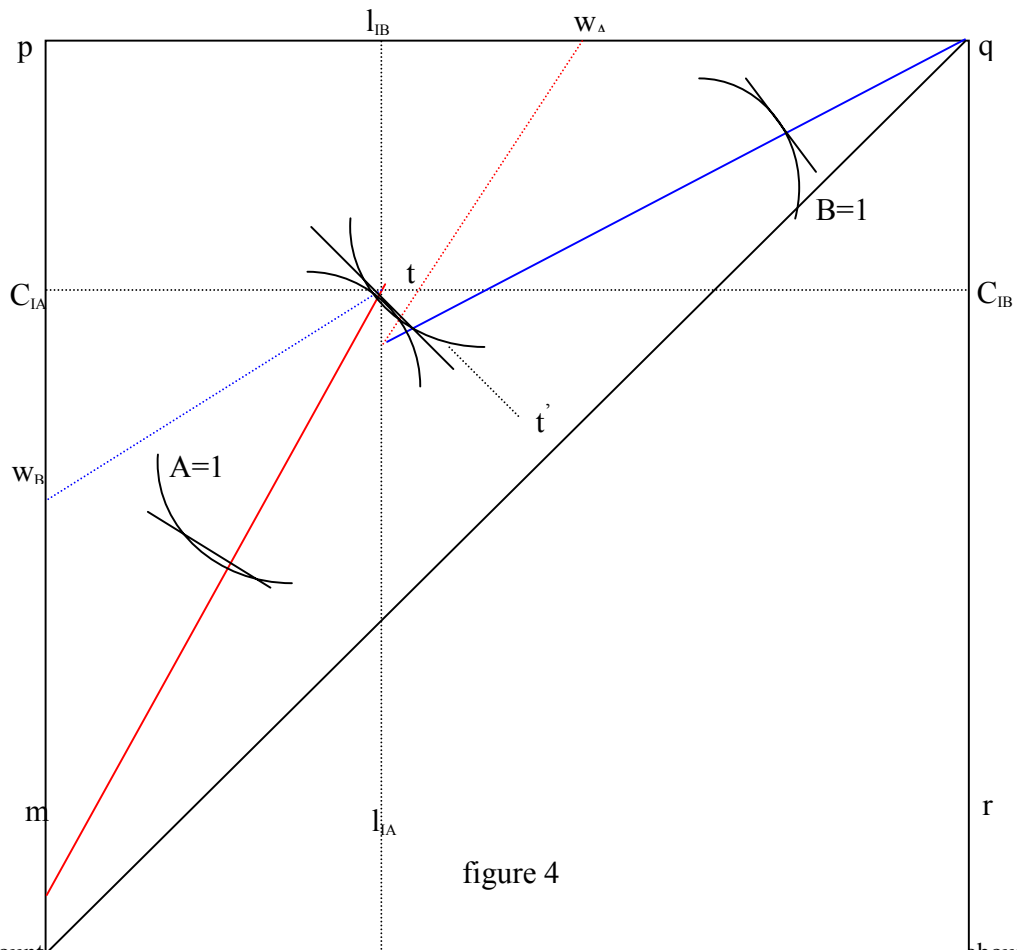
In the more diligent versions, the solution is entrusted to the hypothesis sub 13; the competition and the mobility of factors would lead to the same wage and rate of interest of equilibrium. But the question cannot so easily get rid.

The treatment that follows is referred to the graph version of the H-O model by K. Lancaster. That can be well used to point out as a more sophisticated *escamotage*, consists of assuming prices equal to costs, pointing out them in unitary terms (per one unit of good produced) in the marginal productivity of the productive factors, doesn't resolve the above-said problem at all. That newly it reappears in the traditional and not resolved form of the impossibility to conceive in Neoclassical terms the aggregate curve of production: how assuming as unknown the rate of interest if to obtain the same rate it is necessary the quantity of capital, namely its price that in its turn presupposes as known the rate of interest?¹⁰

16□□16□□16□□16□□16□□GE

¹⁰ For the graphic version of the H-O model see K. Lancaster, *The Heckscher-Ohlin Trade Model: A Geometric Treatment*, <Economica>, vol. 24, 1957, pp. 19-39. In terms of table 6 the problem appears in the following different capital “return”. In the country I the capital receives the 44,4% of the “price” of A and the 21,05% of the “price” of B. In II such a “returns” are equal to 60% of the “price” of A and to 33,33% of the price of B. It has to consider that the heroic attempt of Samuelson (P.A. Samuelson, *Parable and Realism in Capital Theory: the Surrogate Production Function*, <Review of Economic Studies>, XXIX, 1962) to overcome the difficulties relative to the conceivability and hence construction of the aggregate production curve – only at which it could be assigned the task to find out the sole rate of interest (profit, return) of capital for the whole economic system – is failed. As the *querelle* between the two Cambridge has verified. As regard the labour that's to say the sole rate of wage the question is easily resolved as its homogeneity makes it universally fungible because its “abstract” nature (Marx), namely, indifferent in terms of user value compared with capital together with it joins and the good that it produces. Capital, that on the contrary in terms of its user value is individualized and non-fungible. Coming back to the different return of capital in the production of A and B in I and II it has to be clear as according to the hypotheses sub 3 and 13, that seem support the argument for which the capital would migrate from the relative sectors up to equalize their returns, it will be denied the hypothesis sub 10: in fact if the demand is equal to the supply it would be obtained that all the capital concentrates in the sector with the highest return. Also by this way so, it is confirmed the conclusion of the production of a only one good. Moreover, this good would be the same both in I and II with the further confirmation of the impossible explanation of the international division of labour by the H-O theorem. It is worth noting as this conclusion in not in any way hampered from the demand side. This because, abstracting as such as H-O from any exchange (mutual demand) between the sector that produces the good A and the sector that produces the good B, if it is true that authorizes the examined model from the further constraint of equilibrium, it represents indeed a bad abstraction. It must be noted that Lancaster (*pour cause*) doesn't specify that the isoquants are made up on potential, planning basis, whilst the capital/labour ratio of A and B are actual, that's relevant namely in terms of user value given (“positive” judgement). In fact only a “authority of plan” could decide, *ex ante*, in presence of a broken or at fixed coefficient isoquant , to produce A and B by

To represent the equilibrium of the economic system still in autarchy of one of the two potentially trading countries, for example the country I represented in table 6, we recur in the figure 4 to the “Edgeworth’s box”.



Taking account of what we have intended to presume, i.e. in both countries the presence of disposable labour power exceeding the potentially employed labourers at the full employment level, in the rectangle $mpqr$ of figure 4 the longest side $mp=qr$ represents the whole capital used and the other side $mr=pq$ represents the maximum level of labour employment. Which the excess availability is rationed – as we have just said – by the quantity of disposable capital (accumulated hitherto, we can said, if the capital accumulation was included among the evoked concept by the H-O model).

The sector producing the good A, is spotted starting from the south-west position in m , where the capital/labour ratio (angle γ) is given by (actually) C_{IA}/l_{IA} .

The sector that produces the commodity B finds its collocation in north-east direction starting from the point q with an actual capital/labour ratio (angle σ) equal to C_{IB}/l_{IB} .

If we suppose to prolong the produced units of A and B through different isoquants (combinations – at level of project – of capital and labour that produce the same quantity of good) each of ones add a unit of produced good (like $A=1$ and $B=1$) until the produced quantity of A and B intersect themselves in the point t , it is

17□□17□□17□□17□□GE

the same combination of capital and labour both A and B out of a angle position. With isoquants at flexible coefficient the decision to produce A and B up to the marginal productivity of capital are equals, it would imply the choice to make the allocated capital in the two sectors deriving from the aforesaid equality. In the case of a market economy all this is unconceivable, since the general economic equilibrium must really assume the form of an *ex post* order, i.e. reached by the free game among the atomistic decisions at a decentralized level (individual choices).

evident immediately as the different ratios between marginal productivity of capital and labour of the isoquants of A and B out of the point of tangency of this isoquants in t , where these intersect the segment $mt = qt$ respectively, be different. It will be only in t that the isoquants of A and B, since tangent in t , that the economic system will express, according to this graph representation of the H-O model by Lancaster, a sole and same ratio between the productivity of capital and labour that's the only cost of these factors for this system.

The tangent to the isoquants of A and B will express in comparison to the tangent to the point t this different greatnesses. But assuming that the construction just exposed confirms the existence of the unique level of capital cost (the labour is out of the problem) only because of the graphic show it, it means a confusion between a *normative* condition (that's *ought be*) and that it is actually possible to affirm that happens (*positive* condition). In the point t it is logic to deduce that the tangent in that point singles out in correspondence of the full employment a ratio between the marginal productivity of capital and labour (rate of substitution between these factors) that puts off to the capital/labour ratio by which it is possible to produce either A or B, that is A and B is the same commodity. Then in the point t we switch from the representation of a world with more than one (two) goods to a world *with a only one good*, where the model with different commodities is abandoned.

This will be possible only and exclusively denying the hypothesis of the H-O model where A and B are producible by the two unique different productive receipts expressed respectively by the C_{IA}/I_{IA} and C_{IB}/I_{IB} ratios.

In fact it is obvious that would result disposable also the capital/labour ratio relative to the tangent in the point t , tangent the slope of which is different from the slope of isoquants of the commodities A and B (slopes different between them). But this hypothesis whether results allowable it would deny the one for which both I and II produce A and B respectively each by the relative technique (that it is different for A and B) and this gets immediately the H-O theorem to crash down.

In other terms the representation of the H-O theorem with its equilibriums, and hence with a only equilibrium price (cost) of capital (and of labour) in correspondence to the maximum employment of the productive factors, doesn't imply the comparability of these equilibriums at all but only a particular and *normative* condition. Condition that, if it is rigorously interpreted it truly resolves the examined problem but only because of dissolves it, reducing this problem at the only terms that get it conceivable: in the case, a unique value for the price (cost) of the capital but only and exclusively in an economic system where it is possible to produce only one good.

In graphical terms what we have said is revealed by the "line of contract" mq – unknown to Lancaster – where the prolongation of the tangent in the point t intersecting the mp in t' it is also tangent to the two isoquants of A and B, that actually are reduced to the sole good with the capital/labour ratio like the average ratio of the system: $(C_{IA}+C_{IB})/(I_{IA}+I_{IB})$.

And it is in t' , at all equivalents to t , that there's a ratio between marginal productivity of capital and marginal productivity of labour that's the ratio of equilibrium. But of an economy with a sole good (it could say that in t the marginal rate of *substitution* between factors is equal to the rate of *transformation* of A in B or B in A) namely that t is in angle position, but in an isoquant relative to a function with *fixed coefficients* instead of *variable*. Angle position where however is produced A or B but not both. That's to say the economic system of which the official economic science is compelled to speak: because it has never resolved the problem of the representation of an equilibrium economy (general economic equilibrium) with at least two goods, evidently different if and only if they are produced by a different capital/labour ratios (as we have affirmed a lots of times).

Coming back to the presumed graphical demonstration of the H-O model by K. Lancaster, it appears clear that he confuses the nature of t , interpreted as *positive*, in other words determined by the equilibrium of the economic system with two commodities of the H-O theorem, whilst it is merely *normative*, in the sense we have seen. Otherwise, as only alternative at this interpretation, the point t , without escaping from the exigency to produce A or B, it is the place where the isoquants of these commodities are tangent in a diachronic hypothesis: that's in relation to the specialization of the country on the matter in the production of A or B (exclusive disjunction) by the relative value of the marginal productivity capital/labour ratio (in t) but that don't correspond to the equilibrium values of full employment: since the isoquants at which is referred the point t other than not being synchronized they refer to alternative curves of contract (mw_A e qw_B) that correspond to specialization in the production of A and B that get the losing of the full employment equilibrium in the system, as we know. In fact it is right to assume a discovered virtue in the graphical version of the H-O model by Lancaster, that permits an easily showing of what we have already demonstrated. That's

to say in the case of specialization in production of good A, that calls for a capital/labour ratio greater than 1, the examined country I would see lacked its hypothesis of full employment, in particular of the labour: it is sufficient at this aim extending the segment mt until the point w_A . Here the unemployed labour would result $w_A q$.

In the case of specialization in the production of the good B, with a capital/labour ratio lesser than 1, we would have the other case. Proceeding in the same way we have just seen, extending until w_B the qt it is obtained to leave the capital not full employed, for an amount equal to $w_B m$. From it follows that to keep the economic structure of the H-O model that provides for the production of A and B, it is impossible to trust to the only market logic. From all this we can infer most opportunely that the institutional framework of the H-O model is probably close to a “commanded” or “planned” economy representation than a capitalistic economy. This conclusion will find a decisive argument for its support onwards, when we will demonstrate two decisive argumentations in favour of these assessments, arguments of whose we anticipate the tenor.

The first of these arguments will show that for the H-O model the passage from autarchy to open market, namely to the trade in international market, imposes the presence of an “institution” or “authority” super-individual or a “command-directed economy”.

In second place, that this kind of “authority” is unavoidable, also because of in the limits of the Neoclassical paradigm and its subsumed “methodological individualism” in the H-O model is not present a atomistic motivation or, it is the same, a capitalistic logic in a position to justify a “propensity to export”: in other words it is missing a rule of behaviour referable to an agent with a economic rationality able to motive him to export.

But after having dealt with the internal inconsistency of the H-O model, before closing the discussion about its scientific relevance, we want to deepen its theoretical deficit, to face with an aspect that, also not exhausting the theme of the relation between this model and the Ricardian comparative costs theorem, points out essential sides in favour, as we will seen, of the great Classical economist’s legacy.

The theoretical insubstantiality of the Heckscher-Ohlin model: namely the lacking propensity to open the market (or to export).

One of the motives that characterize the undoubted charm of the Ricardian theory of comparative costs, decreeing the substantial migration among the “dogmas” of the economic science as well as the centuries-old resistance against any trying of overcoming, resides in its degree of generality that consists of the undoubted rational and economically justified foundation that this theory provides for reciprocal convenience to switch from autarchy to free trade; namely the power by means of which in it there is a reason for the export/import flow between the partner countries in international market; namely again, to the clear individuation of the economic reason (*ratio*) that permits the international division of labour.¹¹ It must be add the fact that the convenience to the mutual opening of the markets finds in this theory only in a extreme case a constraint to this opening: the same comparative costs between the countries. In other words it is a question of a theory with a strength degree of generality that is valid also in the case of the “Ricardian paradox” where at a first sight the common sense would tend to exclude the trade (trade between partners whose one of the two has the best absolute performances at the parity of inputs in the production of the same goods).

The H-O theory, on the contrary has more restrictive constraints about the possibility and so the convenience to abandon the autarchy regimes for free trade. This descends from the unrealistic hypothesis of the same productive techniques for each of the different commodities of each country, so that the paradigm of the

19□□19□□19□□19□□19□□GE

¹¹ This is true even if Ricardo pays the price to have to recur to an “amoebic” economic system (ultra simplified), where in other words the capital doesn’t appear (and so the capitalists), that reduces itself to a pure economy of reproduction oriented in a natural way to the consumption. In fact the producers-consumers would find however convenient the free trade compared with autarchy, as Ricardo himself ends to admit. The pure hedonism of the economic agents is sufficient to admit a consistent propensity to the importation and to the exportation, but this only if it is gives as resolved the *regressus ad infinitum* fallacy that afflicts the ricardian comparative costs theorem. Moreover it must be considered the extension of the theorem to the case of many goods: here the complication of innumerable configurations of the comparative costs of the many goods cannot easily awarded to the rationality of the individual agent. Taking into consideration all this, it is in this sense that we have intended to define the “macroeconomic fallacy” of the Ricardian model: as based on the excessively mediate role of the comparative costs faced with the immediacy of the absolute costs (prices) and on the necessary resort to the “Sirius point of view” (the presence of a “authority of planning”) to hypothesize the passage from autarchy to free trade.

Neoclassical relative scarcity has its sufficient analytical room to theorize in a marginalistic way. It is worth noting at this aim the starting handicap of this paradigm faces with the diagnosis of the phenomenon of unequal development at international level where the difference between developed and underdeveloped countries is basically due to the technological gap together with the asymmetrical absolute availability of accumulated and so disposable capital, that presupposes the degree of capitalistic development of each national context. Capital accumulation absent on the contrary by methodological hypothesis in the analytical framework of the H-O model that thinks as resolved *ab imis* (from the beginning) the question, giving exclusive relevance to the relative availability of the production factors and therefore of capital.

Coming back to the possibility and so to the convenience of international trade faces with the autarchic regimes, the lesser generality of the conditions that presides in the case of H-O than Ricardian theorem is evident. We can think to the examined case in which the opening to the market would be impossible because of the unidirectional flows of exportation from a country to the other, where the most resounding, hitherto ignored in literature, is the one that leads to the theoretical paradox (denied in reality on time) for which even respecting the criterion fixed in [2] (that's to say a different proportion between the prices of the productive factors and a different capital/labour ratio between the two homogenous goods produced in the two countries, holding fast the basic hypothesis of equal international distribution of the techniques of production) the trade cannot take part because of the fact that the two commodities are both produced by a capital/labour ratio greater than 1. This fact makes paradoxical – as we have seen – the empirical datum of a growing trade among the capitalistic developed countries faced with the trade between these countries and the underdeveloped countries. In fact the inexorable tendency towards the automation in any productive sector in the “mature” economies ought to play a role progressively inhibitive of their exchange, chiefly in the case in which the exchange takes place in the same productive sectors (inter-sectorial exchange) that, newly, it is an empirically falsified phenomenon.

As regard the powerful coming out of the globalization and the foreseeing of the H-O model about a tendency towards the end of the world trade, the fact is without comment.

Coming back to the undoubted charm of the comparative costs theory, thanks to the explanation on rational ground of the appeal to the international division of labour, namely to the validity on the basis of economic rational choice to reciprocal opening of the markets, it is the case to underline as in this theory the propensity to export is asymmetrical at all to the propensity to import, get in this way the convenience of the double flow contextually and mutually. Even if from this standpoint that reduces, in Ricardo, the mutual convenience of the international trade to a sole increase in the consumers' enjoyment, holding fast the productive “efforts” (costs) by the partners, it is evident as all this is grounded on the difference between the domestic terms of trade (in autarchy) and the terms of trade in the international market. This defines unavoidably the reciprocal convenience to trade and so the symmetry in terms of economic *ratio* among the opposed ex/import flows.

Many different is the situation in the case of the H-O theory, where the exchange takes place by *still* prices at their *domestic* equilibrium value (?) namely in autarchy.¹² Here at the mutual convenience to import for both countries doesn't correspond any analogue and symmetrical convenience to export in terms of “methodological individualism”, i.e. the atomistic propensity to act hedonistically. Why to export, if on the supply side do the sector potentially exporter it will receive a price on the international market that is as such as the domestic one? Actually, if it's true as we have said about Ricardo, who, substantially, says that at the parity conditions there is no economic agent that escapes from international market operations in favour of the “domestic” one (and the things are not much changed at nowadays) at the parity conditions, in the H-O model it is absent any economic motivation that ought to lead to export. On the other hand the hypothesis of the constant return of scale prevents to imagine some profit that could derive from the increase of the production level of the exported good. If so it is the only convenience to import (at a lesser cost than the domestic market) that ought to start up the twofold ex/import flow between the partners. But the “importation capacity” of a the country finds this capacity (possibility to finance it) in the level of its exportations, so that actually, at the end, it is to the exportations that the trade dues its possibility to start. But since there isn't sufficient and parallel convenience “(propensity)” to export in terms of economic motivation, it is the whole process of international trade that results economically unjustifiable. This is true in a framework of methodological individualism where the reasoning (“rational choice”) is lied on atomistic ground (single individual or economic agent).

20□□20□□20□□20□□GE

¹² Here, evidently, we abstract from we have ascertained about the absence of the equilibrium in the H-O model, to be in a position to show the further *vulnus* (weaknesses) to which this model meets in the justification of the trade itself.

In fact only from the collective (molecular) or social standpoint, supposing the presence of a public meta-individual institution (state or “planning authority”) the vicious circle just established could sublimate (take the place of) the privatistic point of view, acknowledging just the convenience of the international trade from the interest standpoint of the national interest as a whole, of the economy as a whole, promoting by the public intervention the reciprocal opening of the market namely the passage from a autarkic regime to a free trade regime.¹³

But such a sheet anchor for the H-O model is not thinkable, as it is epistemologically alien from the rarefied world of the Neoclassical paradigm.

In short, even if we admit that there aren’t any paralyzing contradiction in the H-O model, that’s to say it was representable in a scientific way, its algorithms that aim to explain the international trade would not operate: the Neoclassical hedonist agent *par excellence*, rational calculator and motivated to maximize the utility tied to his stylized economic behaviour, is literally hampered in realizing this aim in the H-O model.

We’ve just seen a first irrefutable argument according to which we have promised to show as the H-O model is not in position, by its Neoclassical analytical box of tools, to justify the instinct or propensity to export by at least one of the *dramatis personae* taking part of its repertory, by the economic agents hedonistically motivated to maximizing behaviour. At this aim the model on the matter must coarsely transcend itself acknowledging a “planning authority” or “centrally-planned economy” the task of which consists to recognize and to put the benefits into practice for the national collectivity of the abandon of the autarchy in favour of the international trade; stimulating the economic agents, that’s to say carrying out on one’s own the activity of exportation.

We have anticipated that this exigency of pass over the market as the sole instance of rational and optimal resources allocation in favour of the super-individual institution (“authority of plan” etc.) is not the only place where the “market failure” reveals this theoretical exigency and call for such a help. In fact there is another moment extremely important from the theoretical standpoint, where the passage from autarchy to the exchanges in the international market shows its failure of the only market forces to determine the decision about this transition. Entrusting to the only proper categories of the methodological individualism and so to the only market the transition from autarchy (closed market) to free trade in the international market (open market) the H-O model stalls in an *impasse* countable as a further and denied “market failure”. *Impasse* from which the only “collective” or “public” institution (a *nonsense* for the Neoclassical) can throw it out by promoting, with an opportune intervention of political economy (recurring to a function of *collective welfare*) the abandon of the national economic isolation in favour of free trade.

Whilst the just-analyzed argument can see as a “market failure” by the production (supply) in determining the passage from autarchy to international trade, what we’ll see it regards the “market failure” on the consumption (demand) side in the same direction. Even taking account that the demand fails on its side not being able to “open” the market as consequence of the supply failure: the impossibility to export because of lacking of “import capacity”. But in case we are going to analyze, the consumption side “fails”, let me say, in a direct way.

The theoretical insubstantiality of the Heckscher-Ohlin model: namely the impossibility to define like *optimum* the passage from autarchy to free trade

The consumption falls within the equilibriums of the economic system represented in the H-O model through just the consumer equilibrium. Equilibrium that is the *Paretian optimum*.

It is a question for each consumer of the highest reachable combination of the two goods A and B defined by the relative and highest indifference curves (combination of the two goods at the parity of consumer’s utility of the two commodities) tangent to the income curve (segment that joins the spending of this *given* income in the two extreme cases in which it is bought alternatively each good). Where the equilibrium prices of A and B are evidently known on the production side, prices potentially suitable to find out one of the two good as an exportable one, as we know. Presupposing the incomparability of the inter-subjective utility, the *Paretian optimum* on the consumption side is represented by the following condition: “no one can be made better off

¹³ It must be clear that the symmetry between the convenience to export and to import that it is founded in Ricardo doesn’t merely reduced to the that between importers in H-O. Lacking the pulsion to export, as we have seen, also the “rational” propensity to import by the consumers in the H-O model is blocked by the absence of a justifiable propensity to export. Therefore It is not a question of the “degree” that differentiates the two models on such an essential aspect, but of the substantial foundation to the opening of markets: that it is present in Ricardo and absent in H-O.

without someone being made worse off” (in terms of subjective utility or enjoyment, on the side of consumer welfare). So, if the prices are changing, and another optimum situation is reached no comparative judgement between the two following optimums is scientifically possible.

Therefore, in the economic equilibrium in autarchy may be found a *Paretian optimum* on the consumption side. But at the light of we have just said it follows that the passage to the “open” market , clearly convenient for each of the two partner countries as whole, because of the fact that it involves, for the consumers, a different ratio between the prices of the commodities A and B compared to the prices of these goods in an autarchy state, doesn’t allow to justify a judgement of increased collective or social welfare.¹⁴ In fact we will have two different *Paretian optima* situation incomparable between them. Hence in Neoclassical terms results *indemonstrable* the convenience of the passage from autarchy to free international trade, namely the same convenience of the international division of labour. Therefore long before, and at a theoretical level much many powerful than we have referred previously, according which the H-O is unable of any dynamic formulation determinates by a technological innovation also in only one of the two trading countries, the Neoclassical theory of the international trade cannot be proposed: because of the failure due to the fact that its grounding theorem cannot be represented, that’s the H-O theorem. The problem in Neoclassical terms of getting the analytical ground to the demonstration of the “preferability” before than the possibility of a free trade regime compared to an autarchy regime is a known and ascertained *topos* in “literature”.¹⁵ On this topic the most famous gurus of the scientific Gotha of the economics have attempted to find unusefully a solution. The unequivocal conclusion marks the situation of analytical impasse just described.

Only in one case this impasse is, wrongly, considered surmountable, as we will argue bringing as evidence Samuelson himself who, *malgré lui meme*, ends by admit such a failure even in his trying to rescue the marginalistic or, it’s the same, the Neoclassical paradigm. This impasse seems to find one way out applying to a New Welfare economics’s Classical argument: the Kaldor’s “compensation criterion”.

The kernel of this criterion (elaborated by Kaldor just in reference to the paradoxical Neoclassical paradigmatic paralysis regarding its incapacity to decide in merit to the preference towards the free trade compared with autarchy)¹⁶ would consist of ascertaining the possibility that in the Paretian optimum that takes place after the opening to the international trade, who improves his position compared with at the precedent one he is in position to compensate everybody has worsen the own position in terms of *welfare*. Possibility that can be conceived at the light of the increasing quantity of A and B disposable for a country that abandons the autarchy in favour of free trade. But the Kaldor’s “compensative criterion” has been on good grounds criticized in reason of the fact of having only apparently surmounted the obstacle of the incomparability of the inter-subjective utility accordingly the paralyzing – in terms of the “welfareeconomics” – Paretian optimum principle. The compensation implicit in the Kaldor’s criterion involves in fact that the comparison between the consumers utilities happens at least two times: before and after the, although virtual, compensation takes place. Obviously the problem would be resoluble in the case it is possible to get to a function of *collective welfare*, formulation of which is hitherto failed and that is destined to remains so at the light of lots of theorems formalizing the incontrovertible impossibility of the “democracy” intended as government universally shared by every elector.¹⁷ And it is just at such a function of collective welfare that Samuelson must appeal at the end of his effort to overcome the Kaldor’s compensation criterion in order to demonstrate the possibility in Neoclassical terms to decide about the preference of the free trade compared with autarchy. At the end of his defence of orthodox theory on the examined question the famous Nobel Prize affirms in fact: “We need a Bergson social-welfare function, to answer these questions, and I have always pointed out the illogic of those new welfare economists who used to try to reach normative conclusions on the basis of insufficient norms”¹⁸

22□□22□□22□□22□□GE

¹⁴ With the opening of the market (abandon of autarchy) somebody improves and some others worsens their degree of welfare because the change of prices of the goods in the buying of which the income of the economic agents is exhausted. This is well-summed up by Samuelson: “Practical men and economic theorists have always known that trade may help some people and hurt others”; P.A. Samuelson, *The Gains from International Trade once Again*, <Economic Journal>, vol. 72, 1962, pp. 820 e segg.

¹⁵ See V. Orati, *Una teoria della teoria economica*, UTET, op. cit., vol. I, p. 190 e segg.

¹⁶ Ivi, pp. 196-7.

¹⁷ Ibidem, pp. 202-206

¹⁸ P.A. Samuelson, op. cit

And neither Bergson nor others were able to confute the many theorems about the “impossibility” of democracy¹⁹ as formerly synthesized (a form of the majority’s dictatorship on the minority in absence of unanimity is unavoidable!)

23□□23□□23□□23□□23□□GE

¹⁹ V. Orati, *Una teoria della teoria economica*, Vol.

such a dynamic stimulus is lacking “ex hypothesi” in this model, unless to extrapolate from it what that the same its founder was consciously aware it was incorrect to extrapolate.

Proceeding to the question of the presence or not of a subjective propensity to export that characterizes the economic agent behaviours, it is doubtless, as it is not only defined in the Ricardian model, but as we have already said, we have ended to represent maybe the aspect that best explains the resistance of its *glamour* along the time. To the objective convenience of the international division of labour by the two trading countries is accompanied the stimulus to export by the producers, because in the Ricardian model the goods rather than to be sold at the same domestic price they are sold to a better price. In fact the more remunerative price is defined within the extremes of the terms of trade in the international market.

So that even without to anchor to the *methodological individualism* of Neoclassical matrix the Classical approach overcomes the marginalistic approach *avant la lettre*, escaping from the “Nessus trial” that compels the this latter paradigm to deny only to the market the wonders of the best world among the others possible. In the comparative costs model – even without any strictly paradigm constraint – the exchange with the foreign country is well justified in terms of “rational choice” once it is given for resolved the *regressus ad infinitum* fallacy: the profit, if this is the case, is a definitively sufficient motivation to open the market to the export of goods that in the foreign country will be sold at an higher price than in the domestic one. And if we follow only the explicit variable of the model, it is the normal propensity (instinct) to maximize the consumption with a given income to justify the free trade.

This undoubted relative analytical superiority compared with the Neoclassical model of the Ricardian model is surprising clear faced with same concept of “welfare”, so essential and much dear to the Marginalistic approach in spite of it turns against this paradigm in terms of consistency and scientific consistency, as we have seen.

Here the cynicism of the Classical point of view on the reality, opposable to the ungrounded marginalistic harmonicism, rewards Ricardo causing the wreck of the H-O contribution. In fact if we try to apply the Paretian optimum concept on the consumption side we see as in the case of comparative costs or advantages the accounts balance. If it is true that the abandon of autarchy is accompanied by the changing of prices, the fact that the Classical model supposes that the wages (the labour is the only factor of production) are at the level of subsistence leads to the conclusion that whilst the labourers cannot worsen their position as consumers – it is not possible *ex definitione* to have a wage under the level of subsistence – the increase of the resources deriving from the happened international division labour can switched in an increased “collective” welfare: without the mediation of any social welfare function, without the aid of any compensative criterion with connected impossibility to strengthen the functions of subjective utilities, without recall the impossible solution of the “democracy” problem (impossibility demonstrated by many theorems) and without recurring to the utopia of the unanimity about the referendum on the choice to open the market to the international trade.

This conclusion is not falsified by the Samuelson’s statement “‘Practical men and economic theorists have always known that trade may help some people and hurt others’”.²²

Faced with the Ricardo’s model this statement is without destructive consequences as, on the contrary, it is for the Marginalistic theory of international trade.

The specialization that follows from the Classical economist’s model doesn’t involve any damage for the sector that sees sacrificed its producing because of specialization: the increase of profit in the sector of the exported good compensates the transfer of resources from this sector to the exportation sector. In the scheme of social classes in the Classical approach we’ll have in fact that, with the abandon of autarchy, the class of labourers cannot worsen by definition, whilst the other class, that of the owners of the means of production, thanks to the major resources become disposable by the international division of labour will increase its income (the system is in a static-stationary equilibrium). So nobody worsens and somebody improves his “welfare” and the Pareto’s optimum criterion is fulfilled.

Now we are in a position to focalize in a best way both the Heckscher’s error who believes to have reached with his attempt the Neoclassical synthesis of the Classical heritage represented by Ricardo; and the Ohlin’s wrong presumption to have provided an alternative and most complete model of the comparative costs theorem. Subsuming the different compared productivity of the two nations in the production of the two identical commodities to the Neoclassical paradigm of the relative scarcity meets insurmountable limits, not last in the lesser generality of the H-O model faced with Ricardo’s model.

The key moment to understand this judgement, all aside we have said, is that of the unavoidable exigency for the H-O theorem to exclude the double comparative advantage (for both goods) for one or the two traders: this would imply the absurd conclusion for the Neoclassical paradigm that it is possible in the same time to be

more relatively endowed in both productive factors than the competitor. This is logically unconceivable since a ratio in mathematical terms is impossible that implies in the same time that the numerator (denominator) is relatively smaller and relatively greater than its denominator (numerator). This aspect sums up the essential as regard the impossibility to reduce the Classical paradigm to the Neoclassical one. In the former the scarcity as well as the utility of resources is a prerequisite of the economic phenomenon and not the explanation of their interrelations. Heckscher doesn't realize all this, believing to have absorbed through Ricardo, the whole Classical tradition within the Neoclassical one.

As for Ohlin, he realizes that the aforesaid "synthesis" doesn't exist and appeals to the different theories of "value" with their differences, without however claiming the impossibility to reduce Ricardo in his paradigm in the Marginalistic one, believing implicitly that his model be suitable to discover the hidden implications of the Ricardian one. Implications that once they are disclosed and developed they would show that the most recent and rich of determinations model appears, from the point of view of scientific progress, better than the other. That the things are not according to Ohlin's opinion at this regard, we have abundantly showed. What we wish to clear here is that holding fast the insubstantial project to subsume the paradigm of the *absolute value* of Classical lineage to the paradigm of *scarcity* – of which Ohlin it seems to be aware – the only implication of the difference of the comparative costs by Ricardo has to be brought back to the analytical difficulties tied with the different productive techniques used by the countries that are potentially traders. Difference among these techniques cancelled *ex ipsothesis* by the H-O, whose model in order to stand out the explicative rule held by the *scarcity* and without having resolved the problem that compels Ricardo to his amoebic representation, is constrained to the marginalistic innate harmonicism that compels it to admit an economic world where the *techné* is equally distributed and where its relative greater availability with respect the labour is completely compensated by the relative greater availability of labour with respect the capital. Through this way vaccinating the underlying economic theory against any possible "contamination" by the "disease" of *underdevelopment*, so delivered – once that it is admitted – to the extra-economic dimension, even Malthusian in the diagnosis and Darwinian in the prognosis. To draw up a balance sheet between the just examined theorems is at this point idle. It must be remembered that outcome in favour of Ricardo doesn't imply a judgement of scientific discharge of his model at all, as we know.

Discharged Ricardo's model from some serious fault – first of all the internal inconsistency – has had the only purpose to justify the fact to have undertaken it in this book as expression of the best disposable economic theory in terms of international trade, with the connected useful outcome of showing as the economic science has lost take the way of the Neoclassical paradigm rather than to claim and develop the Classical heritage.

If it is taken into consideration the thin red thread that ties up Ricardo and Wittgenstein by Sraffa, it is possible to infer that the Classical are more modern (for better or for worse) than they followers (in the time), the Neoclassic; that therefore the overcoming of the H-O model is insubstantial faced with the other.

In fact is not Ricardo a "philosopher of language" who rises like a giant on his followers because to have anticipated with the logic of his model the last proposition of the *Tractatus logico-philosophicus* according to "whereof one cannot speak, therefore one must be silent"?²³

Globalisation : the end of comparative advantage??

Gilbert Abraham-Frois EconomiX Université Paris-X-
Nanterre

What about comparative costs theory in a context of growing globalisation ? This contribution¹ has been stimulated by V.Orati very rich book² who according to K.Puttaswamiah... “... *has finally opened the Pandora Box of the Ricardo-Hecksher-Ohlin-Samuelson basic theorem of international economics*”³. But this paper is less ambitious and deals mainly with recent discussions on the theme of comparative costs in this new context.

However, starting point remains the same *i.e* Ricardo and Hecksher-Ohlin models, more specifically from traditional assumption concerning “immobility of capital”; but globalisation means mobility of capital... Consequently aren't we be back, at least in some cases, we may be back to Smith's “absolute advantage theory”?? That will be our first point.

Moreover, new views about specialization appear as consequences of development of intra-industry trade, consequence of globalisation and of strategy of multinational firms; in such analysis, traditional notion of “comparative advantage” seem to have completely disappeared⁴

Another consequence of globalisation which has to be taken into account is “diffusion of technology” which is the problem discussed by Samuelson in his recent paper and which seems to be taken into account.

Moreover, “outsourcing” has important consequences with many controversies (*cf* Bhagwati *and alii* recent paper); in a certain sense, this calls back to ...Schumpeter's “creative destructions”

It appears that globalisation implies growing inequalities which have to be corrected. Consequently, this does not mean “more laissez-faire”, but, on the contrary the “end of laissez-faire” and more State intervention; in a sense, we are .. back to Sismondi but also to F.Perroux for developing new comparative advantages

¹ Many thanks to Ph.Hugon for his suggestions on a very preliminary version ² V.Orati: *Globalization: Scientifically Unfounded*, Esquire Publications, Bangalore India 2003. Let us note that according to K.C.Krishnadas E.E.Times april 28 2005: “*Bangalore remains the world capital for outsourcing*” ³ Foreword, to V.Orati, *op.cit.* *Cf.* also: V.Rappuoli: “What is new in the Analytical History of International Trade Theory: Ricardo, Hecksher, Ohlin, Orati”, *this conference*.

⁴ *Cf.* P.Krugman (1987): “Is Free trade Passé” *Economic Perspectives*, aut. 1987

Globalization and mobility of capital

Let us go back to Ricardo:

“The difference... between a single country and many, is easily accounted for, by considering the difficulty with which capital moves from one country to another, to seek a more profitable employment, and the activity with which it invariably passes from one province to another in the same country”

*“Experience shows... that the fancied or real insecurity of capital, when not the immediate control of its owner, together with the natural disinclination which every man has to quit the country of his birth and connections, and intrust himself, with all his habits fixed, to a strange government and new laws, check the emigration of capital. The feelings, .., induce most men of property to be satisfied with a low rate of profits in their own country, rather than seek a more advantageous employment for their wealth in foreign nation”, D. Ricardo : *The Principles of Political Economy and Taxation*, Ch. VII “On Foreign Trade”, Everyman’s Library 1911, 1962, p. 83.*

Such assumptions are still reinforced in more modern comparative advantages modelization: for instance, one of the assumptions of comparative advantage in the Heckscher-Ohlin model can be formulated as: “labour and capital are perfectly mobile between industries within the same country, but perfect immobility between countries”⁵.

Other contributions of this conference deals with mobility of labour and new views about recent migrations⁶. Let us stick to immobility/mobility of capital. As a matter of fact, main consequence of globalisation seems to be development of multinational firms characterized by “mobility of capital”. Consequently and for this first and central reason one can question the usual theory of “comparative advantage”.... Of course, mobility of capital is not general and concerns parts of the economy, some sectors at least; may be some new kind of “dualism” is emerging which should be considered.

In this sense, and for this sector, have we to get rid of “comparative advantage”: are we back to Smith ? Back from Ricardo comparative advantages to Smith’s “absolute advantages” ?

But this is just a starting point

New views about specialization: development of intra-industry trade

Such views have been largely developed in the recent years by different authors: Linder, Lancaster, Krugman, Lassudrie-Duchêne: “demande de differences”, vertical/horizontal differentiation (Lancaster). Without getting into details, let us give simply some main points, now well known:

- Impossibility to predict which country will export which good(s)

⁵ B.Södersten and G.Reed : *International Economics*, Mac Millan, 1994, p. 59 ⁶ U.Melotti: “*European Migration Policies and Political Cultures in the Age of Globalization*”, Viterbo Conference

- Important role of diversity of preferences among consumers, possibly coupled with income differences
- Similarity of tastes between trading partners may play a major role
- Economies of scale frequent element of intra-industry trade, and may be an important source of gains from trade.

As soon as 1961, Linder emphasized the importance of trade in comparable goods between countries of similar development levels. Such phenomenon seemed to him in total contradiction with Heckscher-Ohlin theory since this theory was supposed to explain trade of very different goods between very different countries from factor dotations.

But , production conditions being judged identical, Linder's explanation was founded on ... demand differences. Production conditions depend on demand, since national producers produce first for their national customers. Demand is consequently a "representative domestic demand".

Exports are considered as a "surplus" trade concerning domestic demand: consequently, this "representative demand" explain nature of exports.

For Linder, countries with similar development levels have similar representative domestic demand and exportable surplus will be formed with same type of goods; Each exportable good is also an importable good.

Since domestic demands are comparable, sophistication in demand too will be comparable. The higher the national revenue per head, the higher sophistication degree for goods.

However, exchange structure in varieties of exportable and importable goods between countries is not defined. Linder indicates that such structure may be the result of some "historical hazard" and may be very "volatile". A solution of the problem has been proposed by Lassudrie-Duchêne (1971) concerning "demande de difference": foreign goods "comparable" to national ones could be demanded and consumed because of "difference preference", consumers preferring to consume goods coming from "outside"

In such analyses, notion of "comparative advantage" seem to have completely disappeared; moreover, production conditions seem irrelevant !!! What comes first seem to be ... demand characteristics and conditions !!

Further developments have appeared explaining intra-trade exchange with different aspects of imperfect competition: oligopolistic, monopolistic competition (Krugman, Lassudrie-Duchêne, Fontagné) but such developments are very far from "comparative costs" traditional approaches.

Globalization and diffusion of technology: about Samuelson 2004

It's a quite different view that is taken in P.A.S paper: briefly said, it is now another characterization of globalisation which is taken into account, i.e diffusion of technology

- Brief reminder of mainstream economists' argumentation

Samuelson begins his paper by reminding readers that “*Prominent and competent mainstream economists enter into the debate to educate and correct warm-hearted protestors who are against globalisation*”. Consequently he proposes a “*a fair paraphrase of the argumentation that has been used recently by mainstream economists*”

Yes, good jobs may be lost here in the short run. But still total U.S. net national product *must, by the economic laws of comparative advantage, be raised in the long run (and in China, too)*. The gains of the winners from free trade, properly measured, work out to exceed the losses of the losers. This is not by mysterious fuzzy magic, but rather comes from a sharing of the trade-induced rise in total global vectors of the goods and services that people in a democracy want. Never forget to tally the real gains of consumers alongside admitted possible losses of some producers in this working out of what Schumpeter called “creative capitalist destruction.”

Correct economic law recognizes that some American groups can be hurt by dynamic free trade. But correct economic law vindicates the word “creative” destruction by its proof [sic] that the gains of the American winners are big enough to more than compensate the losers.

According to Samuelson, this last proposal can be only considered as some kind of wishful thinking.⁷ For it is dead wrong about *necessary* surplus of winnings over losings— The paper provides explication of the popular polemical untruth.

All along, Samuelson uses the standard Ricardian model, which assumes two countries (called America and China), two goods (called 1 and 2) and one factor of production (called labor). Because the endowment of labour is taken as fixed in the Ricardian model, any change in the *total* national income are reflected fully in the change in the real wage. If the real wage rises, real incomes of all individuals and therefore the nation rise. Alternatively stated, the wage also represents the per-capita income in the model.

It is also useful to remember that in a trading equilibrium in the Ricardian model, each country specializes completely in the production of the good in which it has comparative advantage and it exports (setting aside the exceptional case in which one of the economies is gigantic in relation to the other, a possibility not considered by Samuelson and therefore irrelevant for the following discussion). Of course, under autarky, meaning a situation of no trade, it must produce both goods if it is to consume both goods.

- Samuelson’s “Three acts”

Samuelson conducts three experiments in this model:

(1) He starts at autarky and then allows the countries to trade. Both America and China unambiguously benefit from this opening to trade. America has a comparative advantage in good 1 and specializes completely in that good and China in good 2. Nothing controversial arises here.

(2) Starting at this free-trade equilibrium, Samuelson next introduces a productivity increase in China in the good it exports, good 2. With more of good 2 produced, its relative price

⁷ “innuendo” in P.A.S words

falls. America can now buy good 2 more cheaply from China, which benefits America. Nothing controversial arises here either, at least from the American viewpoint.

(3) Starting once again at the free-trade equilibrium, Samuelson finally introduces a productivity improvement in China *in the good it imports and America exports*, good 1. If this productivity improvement is just right to equalize the cost ratios between America and China that gave rise to trade in the first place, all trade is wiped out and America is robbed off all benefits of trade it previously enjoyed.

This last result, called Act II by Samuelson [with results in (1) and (2) above called Act I(a) and Act I(b) respectively], is the source of the challenge he throws at the economists who advocate outsourcing as being beneficial for America in the overall sense. Here it is worthwhile to quote the author directly from the summary in the introduction to his paper:

“Act II, however, deals some weighty blows *against* economists’ oversimple complacencies about globalisation. It shifts focus to a new and different kind of Chinese technical innovation. In Act II, China’s progress takes place (by imitation or home ingenuity or . . .) in good 1, in which the United States has previously had a comparative advantage⁸ What does Ricardo-Mill arithmetic tell us about realistic U.S. long-run effects from such outsourcings? In Act II, the new Ricardian productivities imply that, this invention abroad that gives to China some of the comparative advantage that had belonged to the United States can induce for the United States permanent *loss* per capita real income—an Act II loss even equal to *all* of Act I(a)’s 100 percent gain over autarky. And, mind well, this would not be a short run impact effect. *Ceteris paribus* it can be a *permanent* hurt. (“Permanent” means for as long as the post-invention technologies still apply.)”

Some precisions are introduced by the author: “In Ricardian equilibrium analysis, there is never any longest run unemployment. So it is not that U.S. jobs are ever lost in the long run; it is that the new labour-market clearing real wage has been lowered by this version of dynamic fair free trade. (Does Act II forget about how the United States benefits from cheaper imports? No. There are no such neat *net* benefits, but rather there are now new net harmful U.S. terms of trade.)”

Here Ricardian equilibrium analysis will presuppose no permanent loss of jobs either in China or America. Instead, it focuses on the vital question, “Will inventions A or B lower or raise the new market-clearing real wage rates that sustain high-to-full employment in both places?”

Samuelson’s result in Act II is not disputed by Bhagwati and *allii*’s paper who remind us that such result has been known to trade economists at least since 1950s when the Harry Johnson first demonstrated it.; they prefer to emphasize that the phenomenon analysed by Samuelson is NOT outsourcing. Anyway, and before coming to outsourcing, it may be interesting to restate Samuelson point; briefly said, faster technological progress in China sector I than in US same sector means that comparative advantage disappears; hence complete

⁸ As an illustration let us quote extensively P.A.S contribution: “*High I.Q. secondary school graduates in South Dakota, who had been receiving from my New York Bank wages one-and-a-half times the U.S. minimum wage for handling phone calls about my credit card, have been laid off since 1990; a Bombay outsourcing unit has come to handle my inquiries. Their Bombay wage rate falls far short of South Dakota’s, but in India their wage far exceeds what their uncles and aunts used to earn.*”

loss for US. Of course Samuelson example is quite simplified and may be considered outrageous: assumption of gigantic productivity improvements in sector I by China are such that comparative costs disappear; many possibilities of intra-industry trade will remain and develop. Anyway, it seemed necessary to insist of such critic by one of the very founder of the modern version of comparative costs theory, even if such position has been criticized by Bhagwati *and alii* paper which will be presented and commented later.

Schumpeter, creative destructions and ... outsourcing

Let us come now to the contemporary problem of “outsourcing” which has to be precisely defined before coming to recent analysis

• Different kinds of outsourcing:

The language of the World Trade Organization (WTO), under its General Agreement on Trade in Services (GATS), categorizes four different ways in which services can be traded.

1. In Mode 1 of the WTO terminology, trade in services involves arm’s-length supply of services, with the supplier and buyer remaining in their respective locations. Trade in Mode 1 services is what most economists have meant when they discuss “outsourcing.”
2. Moreover, international trade in tourism (Mode 2), banking and insurance (Mode 3) and programs of temporary or permanent migration (Mode 4) present distinctive issues of their own which are not analysed here

Let us note that the phenomenon of direct foreign investment is often added indiscriminately to the discussion of outsourcing of Mode 1 services, as when a firm closes its plant in Boston and invests in production in Bombay, or when a firm simply opens up a factory in Nairobi instead of in Nantucket. This confuses the phenomenon of trade in services with direct foreign investment.

• Analysing Outsourcing Comparison with other forms of international trade seem relevant. Three issues are to be contemplated:

1. how does trade affect aggregate economic welfare;
2. what is its effect on the level of employment;
3. how does it affect income distribution, especially the real wages of workers?

First, free trade in the usual model raises the overall income of each nation over what it will have under autarky; it enlarges the size of the pie available to each country in the process.

Second, this model focuses on long-run analysis and therefore assumes full employment, which means it *assumes* that trade has no effect on the aggregate number of jobs.

Third, the model allows factor prices to adjust to maintain full employment, and therefore, trade can *cause* changes in income distribution. In particular, imagine a country that is relatively abundant in skilled labor. In such a case, trade may increase the real income of skilled labor in the United States and lower that of unskilled labor. The need for the reallocation of resources may also cause workers to experience dislocation that is, the loss of a job, followed by a period of unemployment, followed perhaps by finding that the available jobs pay less than the ones held earlier. In models with flexible real wages, unskilled workers can experience a decline in their real wages.

Nothing changes in this conventional analysis of trade policy when we consider outsourcing.

The overall message of these models is that offshore outsourcing is generally beneficial to an economy (with conventional caveats, and also the distributional effects are not necessarily divisive).

These models underline the fact that trade in outsourced services is just another kind of trade, subject to the same principles that the theorists of commercial policy have developed in the postwar period. With trade in either goods or services, the precise manner in which the benefits of outsourcing filter through the economy depends on the structure of the economy. Thus, if outsourcing principally takes the form of an intermediate input into the production of other goods, it will act like input-saving technical change, augmenting productivity. An example would be customized software or designs supplied at lower costs through outsourcing to the firms producing, say, automobiles in the United States. On the other hand, if outsourcing takes the form of a new product or an old product supplied at a lower price to the final consumers, it will directly add to real income.

Let us cite Mankiw : *“I think outsourcing is a growing phenomenon, but it’s something that we should realize is probably a plus for the economy in the long run. We’re very used to goods being produced abroad and being shipped here on ships or planes. What we are not used to is services being produced abroad and being sent here over the Internet or telephone wires. But does it matter from an economic standpoint whether values of items produced abroad come on planes and ships or over fiber-optic cables? Well, no, the economics is basically the same.”*

Bhagwati’s recent paper analyses three models which can be thought of as describing several possible outcomes of a technological change that leads to increased outsourcing.

- 1 In the first model - one (aggregate) final good and two factors of production, outsourcing benefits society, but the benefits arrive in a combination of higher returns to capital and lower wages.
- 2 In the second model, with multiple factors of production and fixed goods prices, outsourcing again provides aggregate benefits, but some workers gain while others lose.
- 3 In the final model, with three goods and three factors, outsourcing provides benefits in a way that, at least after workers make a transition to other industries, leads to higher real incomes for all workers.

- **Accumulation of Skills Abroad**

So far, outsourcing has been analysed as involving technical change that entails converting a non-tradable service, initially requiring proximity of provider and user, into a Mode 1 traded service. The phenomenon is analytically analogous to a reduction in transport costs that turns some initially non-traded goods into traded goods. It therefore has effects on the United States similar to those of conventional freeing of trade, holding the factor endowments including skill levels constant. But offshore outsourcing may also be augmented, holding the technology of outsourcing constant, when skills levels increase abroad in

countries like India and China. Some of the recent outsourcing fears have arisen from this analytically distinct possibility⁹.

Evidently, for the mentioned authors, the message again is much like that from analysis in conventional trade models. Here the authors depart strongly from Samuelson's paper; their position can be described very simply: that skills accumulation abroad, or for that matter any exogenous change abroad, will harm or help the United States, depending on what happens to the terms of trade, has already been analysed in the analytical literature that goes back over half a century. Consequently there does exist a possibility of harmful consequences upon the developed economy; possibility, but not necessity, depending on the evolution of terms of trade

The answer that all depends on the induced terms of trade change, if any, can be traced back to the literature inspired by the European fears of U.S. productivity growth in the 1950s. In one of several pioneering contributions, Harry Johnson (1954) constructed a two-country, two-good model in which each country specialized entirely in one good. When the U.S. economy grew, the production of its export good increased: the effect was to increase U.S. exports of its own good, lower the price of U.S. exports and help Europe. Johnson (1955) then generalized the analysis by allowing the production of both goods by each country: the terms of trade could either rise or fall, leaving the effect on European welfare ambiguous. Consequently, there does exist a possibility of "immiserating growth" for a large country¹⁰.

Outsourcing and the developed economy: Welfare, Jobs, Wages and Dislocation

Let us now turn to a reconsideration of the implications of outsourcing for the developed economy. There are different issues to consider: overall welfare; the total number of jobs; the quality of jobs; and dislocation.

Overall Welfare

Bhagwati's theoretical analysis leads to the conclusion that there is a strong presumption that outsourcing that turns previously non-traded services into Mode 1 tradable services is beneficial to the United States. It appears that taking the phenomenon of outsourcing as given, the expansion of skills abroad that are already imported is also beneficial for the U.S. economy, since it makes the imported services even cheaper. The main qualification results from the possibility of the deterioration of the terms of trade in other goods—specifically, that the primary beneficial impact of the introduction of outsourcing or expansion of skills abroad may give rise to a sufficiently strong adverse secondary terms of trade effect in the traded goods to offset the former.

This may happen, for example, because the U.S. exports goods that are more intensive in information technology services and imports goods that are less intensive in information technology. Taking outsourcing as given, foreign (say, Indian and Chinese) growth then makes the outsourced information technology services cheaper to the United

⁹ According to Bhagwati, Samuelson's paper does not deal with outsourcing

¹⁰ Cf. Bhagwati paper 1968 title

States, which is beneficial, but it also has the harmful effect that it expands the world supply of the information technology intensive good that the U.S. economy exports and, thus, worsens the U.S. terms of trade.

There are good reasons, according to Bhagwati¹¹, to believe that this last possibility does not capture the reality of outsourcing, however. Adding 300 million to the pool of the skilled workers in India and China will take some decades. Even if we were to grant the possibility of substantial expansion of complex skills in China and India, the conventional Johnson-type model (1955) that predicts losses due to the deterioration of the terms of trade becomes less relevant. When the revival of Europe and Japan brought their skill levels closer to those of the United States, the gains from trade induced by “factor endowment differences” were increasingly replaced by gains from “intra-industry” trade; for example, the United States now specializes in high-end chips such as Pentium, while leaving more standard semiconductor chips to foreign producers. Similarly, one can confidently expect “intra-service” and “intra-industry” trade to grow between the United States on the one hand and China and India on the other as the latter acquire more skills. Models such as those of Johnson in the 1950s do not give a particularly helpful handle on the analysis

The Total Number of Jobs

Let us come briefly here one some various and important problems concerning labour market

- *number of jobs/composition of jobs*. Number of economists argue, with plausibility for the current U.S. economy, that macroeconomic policy determines the total number of jobs, whereas trade policy affects the composition of jobs. Thus, Brainard and Litan (2004) note in their recent analysis of outsourcing that the number of jobs has flexibly adjusted to the growth in the labor force in the United States. Despite declining barriers to trade, rapid expansion of the volume of imports and the innovation of what appear to be job displacing technologies, the U.S. economy has added 30 million workers to its payrolls since 1985—including the 2001 recession and the relatively slow growth in jobs during the recovery. Moreover, the growth in jobs has been attended by a rise in the median family income by 20 percent during the last two decades.

- *possibility of out-sourcing ?*

A rather common fear is that all or most service jobs will be outsourced to India and China; but such fears are both empirically and theoretically mistaken. Not all service jobs can be outsourced. About 70 percent of the jobs in the United States are in service industries such as retailing, catering, restaurants and hotels, tourism and personal care that require the consumer and producer to be present in the same place and, therefore, cannot be outsourced (Agrawal and Farrell, 2003). The theoretical mistake that the possibility that all jobs, in both manufactures and services, will go to China and India, whether through outsourcing or other trade, because of low labor costs, comes perilously close to confusing absolute and comparative advantage.

Moreover, for Bhagwati, it appears that outsourcing is a relatively small phenomenon in the U.S. labour market. Things may be quite different in Europe.

¹¹ His analysis is quite opposed to Samuelson

- *impact of international exchange upon unskilled labour.*

L.Fontanié (2005) notes that impact of international exchange upon unskilled labour is stronger than is or was thought. The reason is quite simple: entering international competition prompts firm's utilization of more and more skilled workers. Consequently, simplistic and reassuring idea according to which there should be little relation between downgrading of unskilled labour and international exchange seems at least questionable.

About welfare, un-equalities : back to ...Sismondi ??

It is generally admitted that international exchange allows improvement of general welfare but it appears a huge development of un-equalities.

Can we have a first evaluation of some gains?. L.Fontanié proposes an evaluation of consumers' gains. His proposal is quite daring since it is of course quite impossible to measure consequences of outsourcing *stricto sensu*: such statistical category does not exist. However, the author tried to get some information from consequences of imports from outsourcing upon French consumers. Amount of relevant imports is about 12 billions dollars. If these consumer goods had been produced in France, the cost would have been 2,7 times more expensive, because of differences in production costs. As a matter of fact, evaluation of corresponding volume of imports from similar French export goods gets ... 34 billions dollars. Difference between those two amounts – 22 billion dollars – is given as representing the gains for French consumers resulting from importing consumer goods originating in countries where outsourcing has been realized. This means for each householder, and for each year, on average, saving of 940 euros, with huge inequalities of course; anyway, this means, as written by L.Fontanié **“Un treizième mois (au SMIC), pour chaque ménage”**¹²

Consequently it appears that on one hand consumers' gains resulting from globalisation are far from negligible but that on the other hand same phenomenon entails harmful effects, development of huge inequalities. Globalisation means constitution not only of world market and exchange, but also constitution of world workshop, world production system: a very productive one which comes quite close to... king of England as evoked by S. de Sismondi who, nearly two centuries ago (1819 to be precise) in *Nouveaux Principes d'Economie Politique* (1819), imagines that : ... « le roi demeuré tout seul dans l'île, en tournant constamment une manivelle, fasse accomplir par des automates tout l'ouvrage de l'Angleterre ».

What consequences of such a productive system ?? – It seems quite clear that this very productive “King” is very similar to our very productive globalised world. Consequently, (don't forget he is ... socialist) he advocates what he calls « garantisme professionnel », obligation for the employer to support workers during periods of sickness, unemployment, and retirement –

Such a modern conception appears quite relevant in our contemporary context of globalisation if we consider importance of technical progress in modern times, development of inequalities and appearance of ideas such as “sécurité sociale professionnelle » , conceptions developed in France by different political parties or syndicates quite similar to this famous « garantisme professionnel”.

¹² « A thirteenth month's salary (at minimum warranted level) for each household »

Going “back to Sismondi” is necessary but not sufficient since state intervention, public policies are necessary to promote innovations; economies of scale, interaction of numerous activities, firms, universities, research centers are the main means to create new comparative advantages; it may be interesting to note that French government has recently insisted on the creation of “poles de compétitivité” which are not so far from F.Perroux conception of “poles de croissance”. “Lisbon strategy” recently advocated by European governments goes the same way (even if it has not advanced very far but this another question).

Comparative advantage are far from being “natural”; they are continuously being created and destroyed in such areas such as Silicon Valley, Sofia-Antipolis, and of course ...Bangalore.

Free trade in international exchange does not mean suppression of state intervention. On the contrary, it means more state (and better) state intervention, first for redistribution of trade gains between winners and losers, second for creating new sources of comparative advantages.

References

Bhagwati J, Panagariya A, Srinivasan N. [2004] : “The muddles of Outsourcing” *Journal of Economic Perspectives*, Summer Bourguinat H. [2005]: “Le libre-échange: un paradigme en situation d’inconfort?” *Revue d’Economie Politique*, N° 5, sept-oct. Fontagné L. [2005] : « Faut-il avoir peur des délocalisations ? », En Temps Réel, Les Cahiers Fontagné L, Lorenzi J.H. [2005] : « Désindustrialisation, délocalisation » *Conseil d’Analyse Economique*. Hugon Ph., Michalet Ch.A.ed. [2005] : *Les Nouvelles Régulations de l’Economie Mondiale*, Karthala Krugman P. [1987] : « Is Free Trade Passé ” *Economic Perspectives*, aut. Krugman P. [1996] : *Pop Internationalism* MIT Lassudrie-Duchêne B. [1971] : « La demande de différence et l’échange international », *Economie et Société*, juin. Lassudrie-Duchêne B. [1998] : « L’économie internationale « pop » selon Paul Krugman », *Revue d’Economie Politique* N° 4 juillet. Linder S.B. [1961]: *An Essay on Trade and Transformation*, J.Wiley. Melotti U. [2006]: “European Migration Policies and Political Cultures in the Age of Globalization”, *Viterbo Conference Orati V.: Globalization: Scientifically Unfounded* [2003] :Esquire Publications, Bangalore India Prakash A, Hart J.A., eds.[2000] : *Coping with Globalization*, Routledge. Rappuoli V. [2006]: “What is new in the Analytical History of International Trade Theory: Ricardo, Hecksher, Ohlon, Orati”, *Viterbo Conference* Ricardo D. : *The Principles of Political Economy and Taxation*, Everyman’s Library 1911,

Samuelson P.A [2004]: “Why Ricardo and Mill Rebut and Confirm Arguments of Main Stream Economist Supporting Globalization”, *Journal of Economic Perspectives*, Summer Sismondi S. [1819] : *Nouveaux Principes d’Economie Politique*.

Clark W. Reynolds

Trade-led growth, international finance, technology transfer, and growing labor market arbitrage are affecting wages and incomes unevenly both within and among countries. Three new worlds of development are emerging that cross national boundaries altering the pattern of winners and losers. A compensation principle based on far-sighted domestic and international politics and private sector decision-making is not working. Convergence is taking place but not in ways that ensure stability, sustainability, and equity. Migration and remittances are by themselves insufficient to bridge imperfect markets. Despite the impressive growth performance of some economies, thanks to market-opening, income gaps are widening between rich and poor at home and abroad. With globalization it is becoming apparent that the middle class of the first world is in fact the upper class of an internationalized economy. Market-completion brings about a greater balance of productivity and income and broadens the growth process, but if it is to spread development equitably it is necessary to address dramatically different regional conditions. The process of integration requires new measures to complement macroeconomic policies for stability, growth, and international opening. These measures include greater participation of regional decision-makers and representatives of social groups (including minorities) within countries as well as among them if macroeconomic policies are to succeed in today's world.

Introduction

We are on the threshold of a new world of Shared Development or a Dark Age of inequality. The outcome will be mutual understanding or strife. The choice is global in scope. But decisions must begin at home. This is not a time for fear but for patience and understanding. The leading economies of the world, including the United States, the European Union, Japan, China, and Russia, bear a particular responsibility for their own future. Even

¹ An initial version of this paper was based on a presentation at the International Conference on the World Economy, Manzanillo, Mexico, November 25, 2004, sponsored by the University of Colima, Mexico. Further developments were included in a lecture "Policies and Politics in the Regional Development of Mexico: Some Notes on implementation of the New Regionalism," at the Conference on Regional Development, Governance, and Migration, at the Autonomous University of Colima, January 14-15, 2005. A revised draft was presented at the International Conference of the International Institute of Advanced Economic and Social Studies (IIAESS) in Viterbo, Italy, \ 2006. The author wishes to express appreciation for comments from participants at the conference and seminars at the Macau University of Science and Technology, Macau, China, the Universidad de Las Americas, Cholula, Mexico. Editorial suggestions were made by Richard Newcomb, Jesus Arroyo, Hugh Marsh, Dan Blatt, Wang Feng, Su Wenchao, Zheng Jian, Wang Zhiguang, Robert Eyler, Reinhart Wettmann, Vittorangelo Orati, Rameshwar Tandon, and others, none of whom bears responsibility for the underlying analysis. A wider group of family, friends and colleagues has shared in the discussions related to this draft. Their contribution has been so invaluable that adequate appreciation cannot be expressed.

integrated world there is no place to hide. Fortunately technology for the first time has opened the door to a potentially brighter future for all, but it is not automatic. The only fear is that we will not harness our limited resources to the unlimited creativity of an inclusive rather than exclusive model of development.

Every country in the world faces profound dislocations in the years ahead. Nothing will remain the same, and there is no way to escape the new forces unleashed by the accumulation of technology, changing tastes, and productivity. Every region of every country is becoming more and more interdependent with the rest of the nation, its neighbors, and the world. This presents major consequences, both good and bad. There is a clear dividend in terms of increased output per person. But can the process be dealt with in a way that permits some management of interdependence, so that the opportunities created can be made available to all and not just a fortunate few? Will the much-heralded "growth dividend" be distributed equitably among countries, regions, and social groups? Every locality is destined to experience a silent revolution-- and many have already been impacted by the forces of change. But without some degree of management, the process will go blindly forward. There is no guarantee that changes left to raw market forces, with unequal access to power and opportunity, will lead to a new world of stability and social justice.

The challenge before us is to analyze the development process as it responds to the new forces of globalization in order to permit a more effective management of interdependence. While this paper focuses on interconnected changes in the world economy, it is directed at a wider audience of those concerned with economic, social, and political issues including managers in the area of finance, business enterprise, and labor relations. It is essential to adapt the tools of analysis to the process of change, if globalization is to be stable enough to be socially acceptable. This is a political-economic challenge. Hence I am arguing for an approach that takes into consideration the impact on society of economic change and its implications for

economic performance. This calls for an iterative process that is far more complex than a one-dimensional approach to a particular "social science" (such as economics) that assumes that other dimensions (such as social or political variables or parameters) remain constant.

Since each region and sub-region faces different threats and opportunities, the analysis must go from the local and regional to the national and international levels, and from the international back to the national, regional, and local levels. This adds new complexities to policy-making. It is not surprising that the vogue in recent years has been to relegate national policy to the opening of the market and the maintenance of equilibrium. Central planning and decision-making from the top down have been correctly rejected as woefully inadequate for response to the changing market conditions brought about by globalization. However, problems at the local and regional levels give rise to a new set of concerns, because some regions, sectors, and social groups tend to be left behind in the rush to globalization. This creates a new challenge for "development studies," a challenge to adopt a new regionalism. This means that *development economics*, involving an interdisciplinary understanding of the new forces of change, must include a method for policy analysis at the local and regional level.

The irony is that the widespread acceptance of more stabilizing macroeconomic policies in a variety of political regimes (the reemergence of populist governments in Latin America provides excellent examples) reintroduces the need for fresh development studies that will improve our knowledge of household behavior in widely different cultures, and stimulate new institutions (such as bank and non-bank financial intermediaries and economic development agencies at the local and regional level. The new institutions can then use their voice and political clout to modify national macroeconomic policies and macro political models so as to reflect the needs of localities and individuals that might otherwise be left behind by the process of globalization. (Revenue-sharing is one important example of such a link between national

central banks and financial authorities.)

In summary, cultures evolve at different rates. Regions are endowed with different cultures, historical backgrounds, climates, proximity to national and world markets, and endowments of natural resources, labor, capital, and technology. Increased international exchange and the regional integration of national economies may well cause clashes among cultures, races, gender groups, workers and management, regional versus national authorities, and those who espouse different economic systems.

The New Three Worlds of Development

Since the fall of the Berlin Wall and the end of the old "power dyad" between East and West, there has been a new pattern of international and interregional economic stratification which shows new patterns of *convergence* and *divergence* (explained below) among nation states and their sub-regions, as they increasingly engage in global exchange.² In a fresh look at today's stratification, these "New Three Worlds of Development" are defined as follows.

A WIDENING FIRST WORLD: The First World is no longer confined to the West or to traditional European and U.S. capitalist regions. It is composed of nation states and sub

² In the 1950s, at the time of the Cold War, the world was divided into three by French demographer Alfred Sauvy, who coined the term **Third World**² to refer to developing countries most of which fell between the Socialist and Capitalist bloc. In the 1960s sociologist Irving Louis Horowitz² wrote about the Three Worlds of Development. The object of his book was to avoid "over-simplified ideologies and overcomplicated models...to avoid assumptions about the world being 'naturally' divided into two irreconcilable antagonists." For that author the First World was seen as essentially one based on competitive capitalism, comprised of Europe and North America and most associated with the United States. The Second World, in that nomenclature, was "the Soviet Union and its bloc" and was associated with the Russian model of development. The Third World was seen as "a social universe in limbo and outside of the power dyad of East and West." The world of the twenty-first century has evolved into a new form that is both increasingly interdependent and increasingly challenged. Inequality for many has increased, even in the most rapidly growing areas. Markets are merging, offering both hope and problems as all seek a better life while resources grow scarce. Migration of people, technology, financial capital, and tastes blind-sides old cultures and threatens emerging ones. Even though the Cold War is over, stress is increasing. A new **Second World** is emerging that attempts to reconcile economic liberalization with social demands. Goods and services proliferate as never before. Resources such as oil, gas, coal, water, and clean air increase in value as they become scarce. This paper shows that the key is the way in which the new three worlds face their own challenges while recognizing that the results will be shared.

worker.) This First World is the result of widespread adaptation of industrial capital, commercial agriculture, research and development, and high productivity services (e.g., banking, insurance, commerce, telecommunications, state-of-the-art health services, advanced means of transportation, advertising, and media applications of modern technology (such as TV, film, computers, publications including those on the Internet). The First World tends to be associated with ready access to education at primary, secondary, and tertiary levels, as well as high levels of capital per worker. Since the end of the Cold War, the model of First World economies has become increasingly common. High productivity/high income regions are spreading from North America and much of Western Europe to major parts of Japan, to Hong Kong, some of eastern Europe, areas of Russia, Taiwan, eastern China, Singapore, and a few enclaves of prosperity in what used to be called "Emerging Markets."

AN EMERGING SECOND WORLD: This world is comprised of countries and subregions which are opening to both domestic and international trade, migration, finance, technology transfer, and globalizing taste patterns. They are commonly called emerging market countries by those (such as international investors) who see them as actual or potential profit centers because of their rapid growth. But they are better characterized as *emerging market regions*, such as large parts of eastern China, some of the key provinces in India, sections of Mexico's northern states and other sub-regions of Mexico (including Guadalajara and other areas of Jalisco, Colima, the Bajío region, and greater Mexico City), and large areas of Brazil, Argentina, and other "developing countries". These are regions where economic opening offers new opportunities for profitable investment in both physical and human capital given their location, natural resource endowments, access to labor, technology, as well as their history and institutions. Globalization will be shown to have a mixed impact on income recipients, even including those with high levels of education, given the force of labor market interdependence (see below).

of those countries and regions (including sections of countries) falling behind in the race for globalization. This may be due to the uneven diffusion of capital, technology, education, resource availability, and opportunities. It may also be due to weaknesses in business and governance ethics and legal systems and/or the absence of an economically, politically and legally empowered civil society. Even many First and Second World economies have subregions which resemble Third World countries. Even though part of a nation is advancing rapidly or already has achieved high levels of productivity and income the rest of the country remains behind. And some Third World countries have sub-regions with levels of productivity and income that are like emerging market economies (e.g., natural resource-rich enclaves of so-called underdeveloped countries may have significant numbers of people lucky enough to get some of the rents from oil, gas, copper, or other profitable resources.) This is evident for some in the Persian Gulf, the South Pacific, Africa, and Latin America, though the lion's share tends to be kept in the hands of the state and its bureaucracy plus domestic and foreign investors. Both the volume and allocation of resource rents basically depends on private sector performance and the quality and transparency of government). These sub-regions are able to support a rent-seeking *middle class* with patterns of income and consumption comparable to those in "Emerging Market" economies. However resource rents concentrated in the hands of a few oligarchs all too often permit their leaders (and often the bureaucrats they employ) to enjoy luxurious living levels, ornate palaces, overseas residences, opulent life styles, numbered savings accounts, fast cars, and other trappings of the First World, even though their populations remain mired in poverty.

A NEW REGIONALISM FOR DEVELOPING ECONOMIES

potential to do so. To understand the process of development in the twenty first century, it is proposed to look at the evolution of regional economies because location matters to liberalizing markets. "The New Three Worlds of Development" applies to regions even more than to nation-states, although many nations tend to be lumped into one of the three worlds. Income-averaging over entire countries is common in the macroeconomic literature. So are macroeconomic growth models. Statistics tend to be collected at the national level and especially those on international trade, investment, and migration. But nation states are collections of regions, and each region is impacted differently by the changing world system. The challenges that globalization creates are so many and so complex that national governments are hard-pressed to understand the internal diffusion process much less deal with it, especially when they view their country as a unit.

Opening up to the world market requires laws need to be changed in so many ways that just creating an appropriate legal framework is a continual challenge. But however much national laws are changed, actual law enforcement tends to be responsive to local decisions, at least until appeals rise to a nation's highest court.

State and local governments are directly confronted with the consequences of globalization. They find themselves having to further "development" within their own boundaries, which may well contain parts of all three worlds. Often regions of a given country are in competition with each other, working against the goals of national policy. There are the prosperous areas, such as much of the U.S., Europe, and Japan, which are supported by the productivity of rapidly growing industries and commercial agriculture. Even in such areas a number of industries are in decline, faced with the competition from the "Second World". European agriculture has resorted to protectionist measures of "European Agricultural Policy" (despite the transformation of quotas into tariffs) while the U.S. protects its own growers by providing subsidies based on implicit price supports and quotas.

represented by aging members of households, many of which are in the so-called middle class, supported by white collar workers and retirees whose earnings may be limited by the process of global change, even as the cost of services such as health care rises. As First World populations age, the challenge is even greater--they must rely on savings that depend for their purchasing power on the current production and competitiveness of others, often including members of rising social groups at home (such as Blacks, Hispanics, and Asians in the U.S.), migrant workers from emerging market regions and those from Third World areas .³

And there are the rural and urban poor of the First World who are increasingly in competition with immigrants from "emerging market" regions and the Third World. Those seeking better jobs in the Third World must think of moving on to the Second and First Worlds. In Western, Central and much of rural China, this means moving to the Eastern provinces and to major cities. There are similar domestic migratory flows in Mexico, Brazil, and many other nations.

State and local governments are faced with the macroeconomic constraints in the policies of their central governments. These constraints are found in national laws and

³ In the U.S. the current lively discussion of the future of Social Security is influenced by this problem, since the purchasing power of "savings" available for consumption by Social Security recipients depends on current rather than past production. Current production in turn depends on the changing structure of the work force and the income that current workers can earn and save (through contributions to Social Security by themselves and their employers) and the current stock of capital that reflects present and past savings that went into investment, rather than what was consumed and depreciated in the past. Hence the aging population, however much it saved in the past, depends on the current production and savings (of the currently employed, including both legal and undocumented immigrant workers and their employed offspring). This problem is not solved by Social Security "reforms" that change the composition of assets in the system's portfolio. Such changes do benefit securities marketing companies and holders of existing assets, allowing "savers" to put more of their contribution into stocks and bonds. But this doesn't raise productivity until those purchases of stocks and bonds lead to new investment. Unfortunately Social Security "reform" should be designed to make it actuarially sound (so that contributions in the past conform to increased present production). At present in the U.S. the Social Security system transfers income from present workers to present low income retirees. The surplus is used to cover the government deficit whether or not it contributes to capital formation.

The current "pay as you go system" in the U.S. needs to become more actuarially sound and linked to the nation's economic growth. If Social Security outlays are not to be inflationary the contributions to the system need to be linked to the expansion of the nation's productive capacity. In this way, when claims are made (regardless of the past wealth or poverty of claimants) they can draw from higher levels of future production when they retire. The use of Social Security contributions to purchase stocks and bonds (and real estate investment) only influences output to the extent that it leads to "new issues" of securities that finance actual investment in new productive capacity rather than transfers of wealth that already exists (through "churning" of the securities markets).

constraints reflect the needs of individual nation states and groups of states (like the G-7, G-8, ILO, NAFTA, EU, and ASEAN), but not the needs of specific regions.⁴ Within the limits of these constraints, local governments must try to develop their own economies. In the Second World, the leading regions must try to avoid a flooding of underemployed migrants. The lagging regions must try to develop their own education and infrastructure and provide financial capital for localized investments. They must also attempt to retain some of the rents from the exploitation of natural resources (such as the natural gas reserves being opened up in Western China for use by industry in Eastern China.) This is why development economics is becoming more microeconomic and more regional rather than national. But what is missing in most regional economics to date is any direct linkage between domestic and international trade and localized "trade-led growth" models. Also missing is a conceptual connection between the local generation of financial savings (source of funds), interregional as well as international capital flows, and the allocation of funds for local investments (use of funds).⁵

⁴The term "open regionalism" as originated in Asia reflects a holistic opening of economies in whatever region (as in APEC) without regard to specific local problems. In Latin America the term "open regionalism" has been adjusted to accommodate the particular problems of sub-regions (in the Hemisphere) that call for social and economic policies that foster greater inclusion of localities and previously marginalized populations in the gains from increased openness. (See for example publications of the UN Economic Commission for Latin America.) Present trends in Asia appear to reflect an increasing appreciation for regional differences and the need to accommodate them in a more general "globalization" process.⁵ A draft study of the effect of capital market policy and performance on regional inequality in China was prepared by Central Bank economist Xu Zhong, "The Financial Market and Uneven Regional Development," draft November, 2002. Cases of uneven regional development in major North American cities and sub-regions (Canada, Mexico, and the U.S.) are presented in Integrating Cities and Regions: North America Faces Globalization, edited by James W. Wilkie and Clint E. Smith, Universidad de Guadalajara, Jalisco, Mex., UCLA Program on Mexico, Los Angeles, and Centro Internacional Lucas Alamán para el Crecimiento Económico, Guanajuato, México (1998). www.netside.net/mexworld/issue5/index.html. Essays by the present author that take an open economy approach to regional integration, "The Political Economy of Open Regionalism," and "Conclusions and Implications for Policy and Research," are presented as Introductory and concluding chapters in the Wilkie/Smith volume. They provide a generic conceptual approach, illustrated by a comparison of findings from individual case studies in North America and providing research perspectives.

development economics that includes regional approaches has yet to be formed. This article advocates a new way of thinking about development studies. It focuses development economics on ways to react to the forces of change at the regional as well as the national level in order to promote positive (upward) convergence of the productivity and income of those who would otherwise be left behind or mistreated in the process of globalization. It is necessary to find opportunities that take advantage of the benefits from globalization while minimizing the costs--reaping the net dividend of growth with structural change. It draws from my own experience and contacts. The old school of development economics no longer commands center stage, having made its major contributions during the period of post-World War II reconstruction and the Cold War. The new approach must factor in regional differences in comparative advantage based on different endowments of natural and human resources, social access, technological know-how and the limitations that arise when a labor-abundant region subject to a dominant currency can't devalue to match its lower productivity.

Development economics has revealed its weaknesses as well as its strengths. It failed to provide a macroeconomic framework that could adequately balance changes on both the supply and demand side as economies reconstruct, open, and converge in response to new technologies and the pressure of market forces. Development is uneven. But political elites and private wealth-holders who capture a large share of the growth dividend often operate out of short-term self-interest rather than long-term stability and sustainability. They fail to address the needs of those in the developing regions of their own countries (part of today's "New Third World") just

⁶ See Debraj Ray, Development Economics, Princeton University Press, Princeton, New Jersey, 1998. New Directions in Development Economics, edited by Mats Lundahl and Benno J. Ndulu, Routledge, London and New York, 1996. Michael P. Todaro, Economic Development, 7th edition, Addison Wesley Longman, Reading, Massachusetts, 2000.

home as well as abroad.

Far-sighted leaders in all parts of the world have seen that globalization can open the door to massive social improvement (for those regions entering the Second World) provided that there is complementary institutional change. These leaders support participation in globalization even though it can be clumsy and uneven, and can invite in unfamiliar and even hostile cultures that to many appear inconsistent with the old "order" and their positions of authority. However, those with long-term perspectives recognize the need for shorter-term adjustment mechanisms that cushion the impact of change and allow constituents who might lose in the process to receive some compensation from the growth dividend. This is an explicit recognition that it is the political system that must be concerned with the application of the "compensation principle." This is a recognition that the market alone does not necessarily allocate the gains from growth so that all participate in the benefits. Often it is necessary for winners to compensate losers through philanthropy, the fiscal mechanism, or by providing access to the market for those facing barriers that are not of their own choosing. Without far-sighted leaders, no progress is possible.

What does this mean for development economics? To look carefully at what is happening at the local or regional level, one must project future trends under a set of alternative policies and institutions. It is necessary to accept that the pressure of market forces, like that of streams swelled by mountain rain, can be harnessed by dams and channeled for irrigation, power generation, and protection from flash floods and periods of drought. Dams and irrigation systems must be built locally, and so must safeguards to channel market forces, moderate the effect of wide swings in supply and demand, and safeguard against shortages or dumping based on the abuse of market power.⁷ New regions can be turned from deserts to Eden's but they

⁷ The Three Gorges dam on China's Yangtze River is designed to accomplish in the coming decade many times what the Hoover Dam (Boulder Dam) did in the American west seventy years ago. Just as this "miracle of engineering" uses contemporary technology and manpower to raise the level of the great river and create the world's largest man-made lake, so the Hoover Dam transformed the Southwest by generating electricity, providing flood control, and irrigating the region's deserts. Both were conceived by one generation of political leaders (President Herbert Hoover

scarce resources, and eventual desertification. Rents created in one region may be diverted to another locality (or to the national government and its leaders), leading to political conflict. However inter-regional cooperation can level the playing field for further growth. In the case of China, eastern provinces (such as Jiangsu) already provide assistance for railroad links to the western provinces, helping reduce the economic gulf between them. Each region has its own character, resources, and conditions of supply and demand that determine its economic potential. But the long-term competitiveness of a region may differ sharply from its short-run conditions. A region's long-term potential can be transformed into short-term competitiveness (*long term comparative advantage becomes short-term competitive advantage*) by the right mix of technology, entrepreneurship, risk-taking finance, and public policy to provide the necessary economic and social infrastructure. In extreme cases there may be the need for some degree of risk-sharing between the public and private sectors and NGOs. This mix can be achieved if risk-takers are supported by local organizations both public and private, including the sharing of venture capital and development finance by local institutions. Local entities must be given an opportunity to reap the rewards of success, just as they must bear the losses from failure. National legislatures, the executive branch of government, and institutions like the central bank can remove macroeconomic obstacles and promote microeconomic measures. But nation states are not equipped to tailor policies to local conditions in a heterogeneous country unless they have some form of federal system of governance. A centralized system of justice combined with unprejudiced local and provincial courts can ensure that competitive conditions apply in regional markets. But each market must chart its own destiny Revenue-

and Chairman Mao respectively) yet completed by politicians of very different persuasions (FDR and the current government of China). The secret was to combine technology, hard work, and engineering genius with financial capital to favor regional growth objectives. Both cases provided ample opportunities for failures in technology, resource allocation, and political abuse. Both had profound impacts on local populations, including in the U.S. the desperate need for employment during the Great Depression and in China the fate of whole villages and individual livelihoods displaced by the rising waters behind the dam. The greater good for the greater number was paramount in both enterprises, with China's project in the 21st century dwarfing that of the U.S. in the 20th.

levels. However, it can never be more than a minor supplement to local savings. Russia and Argentina provide examples of the noxious impacts when all or most revenues for regional governance come from the central government. Separation of local and regional spending authority from the responsibility for revenue generation can destroy the incentive for conscientious efforts by local and regional officials to facilitate local and regional commerce. Regional branches such as those of the Federal Reserve System in the U.S., the Bank of Mexico's local offices, and provincial offices of the People's Bank of China (Central Bank) are in a position to identify problems and potentials for development in outlying regions. They are also able to judge whether local policies are consistent with macroeconomic constraints.⁸

Efforts to promote regional development should not be a replacement for risk-taking of private investors at the level of firm and industry. The forecasting of success or failure, and the subsequent risks involved, are appropriately those of entrepreneurs and private venture capitalists. But coordination of business, labor and human resources, and local community interests do involve a joint effort to which government and non-governmental organizations at the local and regional level should properly contribute.

This is where an inclusive approach to development economics meets the new regionalism. It requires cooperation and far-sighted planning to provide education, infrastructure, access to technology, credit, and information about future opportunities at home and abroad (including other regions in the same nation state). There is a need to address the

⁸ Here again there is evidence from China that local financial intermediaries in the recent past have been successful at capturing local savings but less than ideal in placing funds in local development projects or providing adequate finance for those ventures that show profit-making potential. In fact partial evidence on the flow of funds of selected regions indicates that while fiscal transfers of the national government show a net flow into lagging regions, the main banks' branches in those regions (most of which are state-owned and operated) tend to transfer local savings from the backward regions in the west and central China to borrowers in the east. (ref. Xu Zhong, op. cit.) This has also been true in Mexico and other developing countries--where profit-seeking banks and non-bank financial intermediaries avoid the higher risk of lagging regions, working against attempts by government to support a more equitable pattern of regional development by reverse transfers from subsidized areas to more rapidly growing regions. The evidence suggests that both labor and capital have flowed out of lagging regions into areas of more rapid growth. This is not always the case. In some cases, pioneered in Bangladesh and replicated elsewhere, special credit institutions have been more successful in pooling risk among several borrowers and especially those providing loans to groups of women entrepreneurs to support small-scale enterprises.

The right degree of openness to migration is a local issue. State and local governments deserve to be supported by tax revenues generated by immigrants and share in the remittances of emigrants. Failure to attend to the financial, fiscal, and infrastructure needs of backward regions can lead to excess emigration, flooding leading areas with immigrants desperately seeking employment opportunities that are denied them by the failure of public policy and private risk-taking in their places of origin. This is not to criticize the all-important role of migration in bringing about the diffusion of economic opportunities--but it suggests that there are negative externalities from the undue flow of migration from poor to rich regions created by a failure to achieve the long-term gains available from the spread of development to lagging areas.

Both Northern Mexico and the United States, along with Mexico's largest cities, are experiencing high and growing levels of in-migration. This migration puts severe pressures on the potential for the growth dividend to be shared by resident workers whose wages and living conditions are subject to the depressing impact of growth in labor supply exceeding demand for employment. On the other hand, without some substantial migration, high-income regions may find themselves with underutilized capital and natural resources (such as arable land) because of the so-called "scarcity" of labor in high-wage areas that would otherwise be underemployed in their low income regions of origin. Clearly, an adequate migration policy at the national level must involve more equitable and efficient linkages between labor supply and demand in regional markets, as well as transparent clearing mechanisms which rely on more than imperfect information, social networking, chance, and desperation to equilibrate labor markets. Constraints on interregional and international capital flows and other measures (such as exchange-rate policies and price-level distortions caused by soft budget constraints) can lead to an excessive reliance on migration. Trying to slam the migration door without opening the other doors to trade and investment is not the answer, as the market will give rise to rent-seeking as wage differentials rise between areas of underemployment and areas of excess demand for labor.

rise in some localities (such as the increasingly fenced areas of the California border), other crossing points (such as those in the Sonora Desert) are resorted to at the cost of increased resort to smugglers, greater risk to migrants, and higher enforcement costs.

Fortunately, the U.S.-Mexico border has many examples of cross-border cooperation among civil authorities, employers, and labor organizations are beginning to recognize the realities of market pressures and the opportunity cost of ignoring them. But NAFTA--which is implemented from far distant national capitals--has repeatedly failed to address these issues, or to benefit from the regional experiences of cross-border cooperation. Even the NADBANK has failed to realize its potential to support investments in infrastructure north and south of the border, notwithstanding its modest contributions to energy, sewage, and water supplies. A treaty that attends only to issues of trade and does not include adequate measures to further development of lower-income regions both north and south of the border is incomplete.

The experience of NAFTA shows that benefits of trade liberalization require complementary attention to regional development needs of all parties to the agreement--even and especially when some of the regions are more likely to benefit than others from the raw operation of unleashed market forces. This is not a call for the arbitrary "leveling" of regional incomes-but for an effort to ensure that there is not excessive reliance on excessive short-run flows between regions. The migration experience shows that excessive flows can distort a more balanced, stable, and equitable development of both sending and receiving regions. The goal of growth should be upward convergence, in which underdevelopment leads to emerging markets, and the latter to full-scale merging of the three worlds into one world of development.

LABOR MARKET INTERDEPENDENCE

from the First to the Second World in response to the profits that can be earned by taking advantage of lower cost labor in the Second World, some of which is drawn from lagging Third World regions. Such policies are understandable in terms of short-term profit maximization. But they work against the long-term sustainability of First World production and employment, as technology, productive capacity, and markets move toward the Second World. And when there is an uneven playing field in terms of the underlying conditions of employment, rights to organize and bargain collectively, and exchange rate levels (as with China) the reallocation of competitive advantage that results from such distortions can cost jobs at all skill levels in the First World and depress real wages (e.g. in Europe, the U.S., and Japan). This will weaken the ability of First World countries to maintain markets for Second and Third World exports.

The pursuit of new transitional rents is based on the convergence of labor markets (*labor market arbitrage*). This has replaced rents based on a de facto monopoly of technology in the First World in previous decades (such as U.S. auto and steel industries before they were faced with competition from lower cost and ultimately higher-quality imports.) The market power of First World producers provided super-normal profits in the early postwar period. In those years, U.S. labor unions were able to bargain with management to raise wages by sharing the profits (industry rents) with investors. With globalization, this is much more difficult. The emergence of greater international competition through globalization helps lower prices to competitive levels and works against monopoly rents. But as a consequence it also takes away the bargaining power of First World labor and removes economic rents from the wage bill. In the 21st Century, American, European and Japanese workers face greater competition from both imports and immigration. This has implications for the convergence of wages and incomes between the First and Second Worlds.

The greater the lag between the Second and Third Worlds' productivity growth, the more likely there will be downward convergence in wages and incomes for large numbers of

world's upper class. It is joined by the upper income groups of the Second World and a few who prosper in the Third World. But if today's so-called middle class does not dramatically increase its savings, educate its youth, and invest in new technologies that bring about higher domestic incomes, it will find itself "coming down" to the level of a new international "middle class." This will be exacerbated by the aging process, well beyond the limits faced by Social Security measures and the erosion of the American and European "safety nets." The challenge is different from that faced by the United States during the Great Depression. Even if global growth continues, which we all hope for, as the shares become more broadly distributed many of us in high income countries will have to run faster just to stay in the same place. As the Bible says, "the rich ye have always with you." But that doesn't mean that the "middle class" will be able to retain its lifestyle. A new affluent group will take its place, many of whom will come from prospering Second World economies, the successful of all social classes, entrepreneurs of many nationalities, and those with scarce skills.

Higher Wages in the Second World Help both the First and Third Worlds

Policies that promote the transition of development from the Second World into the Third World will favor wages and incomes in the First World. This is the task of the new political economy of development. The diffusion of development from leading to lagging regions will provide greater stability and growth in the Second World as well, particularly where there is the danger of excessive relocation of population through migration, because some regions lag behind others which benefit from increased trade and investment. This is a challenge

partly with the help of market forces, as the cost of employment in its eastern provinces is rising. Mexico has yet to address the growing gap in regional incomes or the lag in wages between those of its citizens who work abroad or in the northern border regions and those of workers in more remote areas in the center and south. The framers of NAFTA never contemplated a North American regional program to deal with lagging economic zones, even though policies to promote greater regional equality have long been a part of the program of the European Community.

We have seen that globalization changes the conditions for development policy. Greater openness increases the importance of regionalism as an adjunct to macroeconomic policy. Fiscal balance and stabilization measures required for globalization have both good and bad effects on labor markets. Structure matters for stability and growth, because of evolving comparative advantage and the need for broader distribution of the gains from growth. Trade and finance benefit from policies that widen the domestic market and permit more balanced growth of international exchange. Such policies are important for both China, Mexico, Brazil, and India as well as other developing countries that combine emerging markets (Second World) with underdeveloped regions (Third World.) It is also essential for First World countries including the U.S. and Canada, where some regions lag well behind growth elsewhere (e.g. in Newfoundland, Canada and much of the deep south of the U.S. Unfortunately, such policies are impossible without good governance and a functional federalism that facilitates the commercial activities and well-being of the entire population.

CONVERGENCE AND DIVERGENCE

In today's world growth is uneven. The pattern of change represents aspects of convergence and divergence. Unfortunately there is a significant amount of divergence that

movement for regions, institutions, and social groups with initially high productivity and income. All Three Worlds of Development are enmeshed in the process. The concepts of convergence and divergence are employed as follows. They refer to convergence of (1) productivity per worker (i.e., value added per worker), and (2) labor income per worker which is the proxy for (3) wage income per worker. The figures used are (1) value added in manufacturing divided by the number of workers in manufacturing; and (2) labor cost per worker in manufacturing.⁹ Actual wages are difficult to present in comparable form because of the number of classifications of labor skills and the wide range of fringe benefits which differ among countries, sectors, and employers even when skill levels are the same. Hence even though the absolute levels described may well be subject to a considerable margin of error, the general trends are evident and carry with them major social consequences. In our analysis there are three major types of convergence and one of divergence:

(A) UPWARD CONVERGENCE (This happens when regions show increases in productivity per worker growing at a higher rate than productivity growth in high-income regions but with both rich and poor regions showing increases.) As a result of upward convergence, both high- and low-income regions experience average productivity growth that narrows the gap between them. This is the case for fast-growing emerging market regions (such as the east of China, the urban and commercial agricultural regions of the "four tigers" of Asia, Ireland, many areas of Spain, much of Chile, parts of India, parts of Brazil, and the north of Mexico), the economies of which are growing much faster than the U.S., EU, and in recent years, Japan.

⁹ The source of data used on wages and productivity are taken from 2001 World Development Indicators, The World Bank, 2001. The figures are expressed in U.S. dollars converted into constant prices using the World Bank Atlas method applied either using official exchange rates or "conversion factors" reflecting more reliable purchasing power estimates of exchange rates, as used by the World Bank (see World Development Reports for GDP estimates in terms of official exchange rates and purchasing power parity rates.)

pro-globalization arguments. Such positions generally assume that market-opening and trade liberalization will cause productivity and income in low income countries to move toward higher levels, even as per capita incomes of leading countries continue to rise. But this does not necessarily mean that the wages in the areas of rapid growth will rise at the same rate as per capita income or that wages in rich countries will always rise. In fact it is well-known in economic theory that economies which have abundant labor, and especially those with large rural populations, may well experience widening gaps in income distribution during the early stages of development. Even in labor-scarce economies (like the U.S.) raising the supply of migrant labor as well as labor-intensive imports may have a depressing effect on domestic wages even when immigrants themselves are better off.

And even though the general level of wages in capital-and resource-abundant economies does rise, workers' earnings in general are not likely to grow as fast as average income per capita because of the greater increase in the return to capital, resources, and skilled labor. This happened in the U.S. and Europe during the early stages of industrialization, even though wages in Europe lagged behind those in the U.S. As immigrant labor was drawn from the Old World to the New, incomes of the emerging "middle class" and upper income groups rose faster than those of the working class leading to increased social and political pressures by the turn of the 20th Century. (This pattern is described below as *upward divergence*.)

(B) DOWNWARD CONVERGENCE (This occurs when average output per worker falls faster in high-income than in low-income economies.) This characterizes the drawing together between rich and poor countries or regions through the breakdown of barriers to exchange. It may happen when economies are static or in a downward cycle,

without significant overall productivity growth, rich regions may experience a decline in income even as poorer regions show an increase because of the working of economic exchange. This is most likely where there is increased domestic or international trade liberalization but inadequate savings, investment, and technological change--as during a recession or depression.

(C) UPWARD AND DOWNWARD DIVERGENCE (This occurs when the gap widens between rich and poor regions.) This is true of both productivity and wages between the First and Third Worlds as well as the Second and Third Worlds as indicated in World Bank, World Development Indicators for recent years, measured at the level of national economies. For regional economies the evidence is suggestive but highly country-specific as obtained from national data sources.¹⁰

(D) NORMAL CONVERGENCE (This is analogous to the "law of one price". This is something that is predicted for labor by the "factor price equalization" theory (Stolper-Samuelson)¹¹ based upon the argument that by linking markets, globalization will bring prices, wages, and productivity together (normal convergence) so that the marginal value product of labor will equalize. But most of today's conventional economists argue that

¹⁰ The author is working on regional estimates for China and Mexico which indicate divergence among regions in those countries--based on the regional breakdown of gross domestic product into gross regional product. Data for the Yangtze Delta, the Pearl River Delta, and for selected regions in China clearly indicate growing divergence in incomes by region--and are supported by household income data that reveal the same trend as well as growing gaps between rural and urban income. This is notwithstanding strong evidence that at least for China since liberalization, the per capita GDP figures for the country as a whole (led by the Eastern provinces) shows strong convergence with higher income countries because of the slower growth of the latter. ¹¹ See Deardorff, Alan V., and Stern, Robert M., with the assistance of Sundari R. Baru, The Stolper-Samuelson Theorem--a Golden Jubilee, University of Michigan Press, Ann Arbor, 1994; see also the criticism of outsourcing orthodoxy by Paul Samuelson, "Where Ricardo and Mill Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization," Journal of Economic Perspectives, Vol. 18, No. 3, Summer 2004. Samuelson argues that there is no theoretical basis for the assumption that the gains by winners in advanced industrial countries will exceed the losses of losers in the process of economic integration.

dynamizing process in which the "gains from trade" lead to lower prices but not to lower wages in the First World. In such scenarios, everyone becomes better off, and it is assumed that the income of those in the poor markets grows faster than in the rich. Unfortunately this is not always true, though one wishes it were.

Research on convergence in different regions (provinces) of China indicates that there is upward divergence in wages, even though there is growth in productivity (output per worker) in most regions. The fastest growing regions have the highest output per worker. While in China there are increasing attempts by the national government to support the economies of lagging regions, natural market forces lead to increased diffusion of development from the leading regions to adjacent provinces (such as Anhui in the Yangtze Delta) and the lag in government collection of revenue from those who gain in the growth process puts limits on fiscal expenditures designed to improve equity. If we divide the globe into the Three Worlds of Development, focusing on regions rather than countries, it is clear that there is upward divergence between wages in the Second World and those in the Third World. This is because labor market arbitrage brings about normal convergence in real wages between the First and Second world, but the highly elastic supply of labor in the Third World prevents the full diffusion of gains to the poorest workers in regions which are not yet "emerging". While productivity per worker rises, wages do not follow at the same rate. The process of globalization spreads per capita productivity and income in ways that expand the limits of the Second World, permitting "emerging markets" to anticipate eventually becoming part of the First World. But sharing proportionately in those gains is the dream of those with scarce skills, special access to education, the politically connected, and those with access to financial capital. While others will experience improvements in income, for most prosperity is a dream for their children or grandchildren.

World regions, keep wages and the marginal productivity of labor in areas of the Second World well below average productivity--causing the gap to widen between the value of output per worker and wage growth. As a result, income inequality increases. Countries such as China, long accustomed to conditions of the impoverished Third World, now experience impressive growth in regions connected to the world market (Second World regions). But they also show large increases in household income inequality not only between their Second World and Third World regions but also within their emerging regions (such as the Eastern provinces). China, which during the Maoist years cut the privileges of the rich and reduced incomes to a low common denominator, is now recovering at an uneven rate. Its income inequality is beginning to match the distributional gaps in developing countries such as Brazil and Mexico.

The elastic supply of labor in Second World regions of China and parts of India permits much greater increases in incomes of the few households able to benefit from the growth dividend. Gains are also reaped by public officials who receive gifts and favors for opening up access to scarce resources, land, and capital. (For example in China under Communism, land is owned by the state and leased to rural households, urban dwellers, developers and investors at rates well below its opportunity cost.) To the extent that market forces keep wages near the marginal productivity of labor, rather than its average product, this process can continue for many decades. Labor market interdependence brings the greater elasticity of labor supply to the First World through migration and trade, so that even services of skilled labor become affected by the erosion of scarcity rents through international competition. This was recognized by economist W. Arthur Lewis,¹² but not in the context of the new regionalism that is being

¹² During this era of rapidly increasing globalization, the number of workers drawn out of the rural sector (an important part of the "Lewis model") increases dramatically, making the supply of unskilled labor highly elastic. And as large countries such as China and India expand their educational system, even labor with educational skills faces competition from the vast number of school-leavers able to take advantage of lower travel costs and the permeability of frontiers within and between countries. Lower travel costs, improved information, and reduced regional, racial, and ethnic barriers allow workers from all parts of the Third World to move to locations in the Second and First Worlds, where advanced technology, capital, and natural resources raises their average

permit the marginal product of labor to rise in developing countries. As wages and the marginal productivity of labor are kept down even as average product rises, one would expect a growing dualism between rich and poor in economies of the First and Second Worlds even though the average per capita incomes of the two worlds converge. It is not surprising that losers may outnumber winners if interdependence is not more effectively managed at the local, regional, national, and global levels.

The result is upward divergence in wages and income and even downward divergence with regard to wages in the Second World. The way the market works in many emerging markets of the Second World would be familiar to Adam Smith, who criticized similar pervasive mercantilist market imperfections and their noxious impacts in the 18th century. It is as though many of today's elite were copying those of 18th century London, waving a magic wand and letting their favorites take advantage of the new opportunities opened up by today's globalization, just as their predecessors did in the time of the Scottish moral philosopher and precursor of modern economics.

Of course some of the most fortunate income recipients in the Second World are not citizens of their own country but privileged foreign investors. This is true even though the lure of the "big market" that draws many First World firms to China is not yet a reality for most investors. That is because of China's growing inequality in family income. The "big market" in large emerging countries is represented by a relatively small number of households in major

productivity. While their wages rise, often their marginal productivity lags well behind increases in average product (total factor productivity per worker). The abundant supply of labor also works against the market power of unions just as outsourcing leads to increases in competition that eventually erode the market power of employers. Even though globalization may favor increased competition and reduce the monopsony power of employers and the monopoly power of employees, the growing supply of labor will itself break efforts of labor organizations to improve wages, hours, and working conditions by their own exercise of market power through slowdowns, threats of work stoppage, and other measures. If workers are paid according to their marginal productivity, then wages in the First World will eventually converge downward to Second World levels, plus the opportunity cost of moving from rural (Third World) to urban areas, including the cost of migration, risk, and job search. The alternative is for First World countries to speed their own productivity growth so that by running fast the income of labor will be able to stay in the same place or even rise, despite the integration of world labor markets. In addition it is important for households to broaden their income base to include income from capital as well as wages. Small businesses permit this to occur as an important element in growth of a broadening middle class.

(This inequality is partly because of a skewed tax base. A large share of personal income is undeclared to the fiscal authorities and remains invisible from the viewpoint of tax collection.) Because China is so huge, the absolute number of really big spenders approaches 50 million (out of about 250 million in China's Second World). These are the households who are able to buy the goods sold by foreign direct investors, whose incomes are rising rapidly and beginning to approach or surpass those in the First World. Despite the high rate of personal savings in China, this is a large enough number of consumers to attract some of the highest-end suppliers of the First World. China's "emerging market" of 50 million or more is luring providers of luxuries of all types from Europe the United States and Japan. And the remaining 200 million in China's Second World fuels the market for rapidly expanding Carr fours, Wal-Mart's, McDonalds, KFCs, Starbucks, and Haagen Dazs outlets.

Meanwhile China's investment, production, and employment is slowly beginning to spread beyond the eastern seaboard, radiating out from Shenzhen, Shanghai, and other mushrooming urban centers. This is primarily because of rising costs of land and urban services in the coastal regions owing to increasingly crowded housing conditions, the lack of space for new plants, scarcity of basic commodities, and rising labor costs as migrant workers become able to bargain for higher wages though by no means at a pace that matches the growth of total factor productivity (i.e. increased value added per worker).¹³ Because in China income goes to a few households and savings are a high percentage of the income of the new rich, most domestic

¹³ The author is engaged in a study of the regional integration of the Yangtze Delta during the past decade. Initial findings illustrate a gradual spread of economic development from the Eastern seaboard west to adjacent provinces along the Yangtze River. Local and national government policies are being pursued to spur the diffusion of economic growth inward from the coastal areas. There is a similar effort to spur regional diffusion in the southerly Pearl River Delta, including Hong Kong, Shenzhen, and Guangzhou, the first region to benefit from China's economic opening. The Yangtze Delta became the next major region to pursue trade and foreign direct investment, focusing on Shanghai and its nearby provinces. But growth in both deltas, though astonishingly rapid, has been associated with extreme divergence in incomes within specific provinces and between them and much of the rest of China, even though labor costs, infrastructure expenses, and land rents are rising in localities closest to the international market. (ref. work in progress, Reynolds, C. W., "Regional Development in the Yangtze Delta; the Problem of Convergence in the New China," research initiated at the China Europe International Business School (CEIBS), Shanghai/Pudong, 2002-2003.)

Chinese industry. Competition for China's home market has driven down domestic prices to levels that rarely provide significant domestic profits. Most gains are from sales of low-cost Chinese manufactures in high-cost foreign markets at what is called the "China price," giving a spread that generates profits (market penetration rents) for those able to arbitrage between the China market and the rest of the world.

China's sale of low-priced exports to external markets generates the income necessary to pay for its imports of both goods in process, machinery, and raw materials. Because of its growing demand for basic commodities, China, must import many of its raw materials and primary products from the rest of the world. It is able to sustain a trade deficit in basic commodities from the Second and Third Worlds because it retains a surplus of exports over imports of industrial goods to the First World. There is some concern that reducing China's manufactured goods export surplus will create a shortage of purchasing power for essential commodity imports thus slowing the country's growth potential and causing inflation. A more balanced pattern of demand with a spreading of income throughout the country is needed for China to be able to count on its own market as an additional engine of growth. This of course calls for more productive use of domestic labor, financial capital, and natural resources, conservation of the environment, and the weeding out of wasteful, polluting firms as well as unproductive activities that remain from the old system of patronage.

China's rising trade surplus with the U.S. not only helps to support its own much smaller overall trade surplus, because of imports needed for re-export, but it also provides credit to the U.S. to sustain the import surplus of North America's consumerist society. China is accumulating hundreds of billions of dollars in U.S. government bonds and other liabilities. China's lending to the U.S. has the effect of supporting growth in U.S. demand for Chinese manufactures. But this is not only to generate a market for Chinese exports by fueling U.S. demand. It also protects domestic producers from lower cost imports (that would threaten

Chinese investors in U.S. industries gives access to technological know-how that will ultimately permit China to expand its own productivity and competitiveness. Building up balances of hard currency, like bullion in the days of mercantilism, increases the power of the country that accumulates foreign credits and secures it against the swing of international financial markets away from its own currency. This is a way of increasing a country's leverage in international relations (especially those with the borrowing country), a common argument for under-valuation of a currency vis a vis the dollar.

In a process that resembles latter-day mercantilism, the First World (U.S. and EU) buys what the Second World (Eastern China) produces, using labor from the Third World (rest of China and much of Asia). China also exports manufactures to Latin America and other Second and Third World economies in exchange for raw materials and primary products. In the short run the process benefits both foreign consumers (including those in the U.S.) and Chinese firms (along with foreign investors). Because other countries buy what China produces, its growth pulls the world economy forward. But there is a price in terms of soaring long-term obligations of the U.S. to China which carries with them the risk that China may not be able to get back the real transfer of goods and services that U.S. indebtedness implies.

The current U.S.-China trade deficit cannot continue to grow indefinitely. Even though the market itself will force an adjustment, too sharp a correction could be mutually catastrophic setting in motion a Tsunami in the sea of trade and finance. Ultimately there will have to be a major change in the policies of in all Three Worlds and particularly those of the U.S. and China, if the adjustment is to be smooth.¹⁴ In both cases more attention to a balanced path of domestic development will be complemented by support for lagging regions and for workers in Second¹⁴ This is what happened when the postwar "dollar shortage" led to a "dollar surplus" during the Nixon administration, eventually forcing a devaluation of the dollar against gold and ending the Bretton Woods fixed rate exchange system. The new trade patterns associated with globalization are creating pressures that will lead to either a revaluation of currencies through price level changes or changes in the official exchange rates (lowering the value of the dollar and increasing that of the RMB.) The greater challenge will be to avoid the re-imposition of trade barriers which was threatened in the case of steel and seems even more likely for textiles.

and other First World regions this will mean higher rates of domestic savings and investment, improved education, support for research and development, a shift in demand toward *non-tradable* goods and services, efforts to conserve resources and improve infrastructure, and policies to bring about the widening of Second and Third World markets including those of its Western Hemisphere partners.

For growing areas of China, India, and other Second World regions it means support for a broader based development that includes lagging regions and income groups, greater support for the interests of labor, health, education, and other "safety net" measures, and assistance to resource-rich Third World countries, so that they will realize their own growth potential. There may be a slight tradeoff in terms of short-term deterrents to trade-led growth, in order to broaden the basis for long-term development. If the broadening strategy is increasingly applied, the world demand for Second World exports will expand and diversify, permitting countries like China to finance basic commodity imports. This way they will reduce China's relative dependence on First World markets for its manufactures and facilitate greater global upward convergence in productivity and income.¹⁵

The Management of Interdependence

An approach to policy (a policy model) that takes into consideration state and local governments and regional associations is needed to **manage interdependence**. It should focus on measures that address the particular conditions (comparative advantage) of specific localities. Attention to local needs such as education, technical assistance, financial services, transportation,

¹⁵ Some of the accumulation of dollars from China's trade surplus with the First World could go to the support of net capital outflows to Second and Third World regions, such as those in Asia, Africa, and the Americas, that would have the effect of expanding those markets for China's exports as well as diversifying their own trade. In this way there would be a win-win solution in terms of global development which would be consistent with China's widening of its own internal market, increasing social expenditures at home and abroad designed to increase productivity, education, and income. It would reduce the country's vulnerability to the accumulation of dollar financial assets and achieve greater popular participation in the development process.

income throughout the economy through a virtuous cycle of rising wages and increased profitability of investment (in both physical and human capital). Under managed interdependence there need not be a big trade-off in terms of growth versus income and wealth distribution. Instead it would provide a win-win solution that draws labor into the modernizing market economy by raising productivity, real wages, and expenditure on (labor using) services as well as wage-goods.

Both China and Mexico, as well as other emerging market countries, can improve links between their lagging Third World regions and their Second World areas. This calls for state and local policies tied to a national effort to broaden the geographic base of development.¹⁶ This approach to regional integration in a widening global market is central to the policies of what is hoped to become a new regional economics.

Migration, both internal and external, is a necessary condition for market completion, but it can lead to overburdening of productive regions. Reliance on migration is insufficient and, if excessive, could become both inefficient and inequitable. There is also the need to widen markets to include slower growing regions and lower income groups and to reduce rural-urban inequality. What must be recognized is that without policy measures to support lagging regions, capital will flow away from them along with labor in the direction of leading regions. This will lead to increased domestic divergence and will force backward regions to rely increasingly on remittances to support their low income levels. They will be forced to remain in the Third World even as the rest of the economy emerges--but it emerges with an abundance of migrant labor that depresses wages and skews markets in the Second World as well. By forcing the Second World

¹⁶ China's premier has recently announced (March, 2006) a major strategy designed to provide economic and social infrastructure to slow the increasing gap between rural and urban areas and east versus west. The potential role of the private sector remains unclear in this process along with the need for broader based political, social, and institutional "bottom-up" policies.

gap between average productivity and wages in both the First and Second World.

HOW MARKET BROADENING BY WIDENING DEVELOPMENT FROM THE SECOND TO THIRD WORLDS CAN BENEFIT ALL THREE

We have seen that failure to address the need for market-broadening leads to a new mercantilism that is now replacing import-substituting industrialization in many emerging regions (such as the high-growth regions of Asia, Latin America, and Africa vis-a-vis western markets to the neglect of their own lagging regions). Meanwhile, the new mercantilism feeds a culture of consumerism in advanced industrial countries and emerging market centers whose appetites are fed by capital flows from export-led developing regions that favor safe havens in the U.S., Western Europe, and Japan. This is not a criticism of upstream capital flows from poor to rich regions. But it is a call for measures to provide more safeguards for investment in actual or potential emerging markets to facilitate market-widening and convergence.

This calls for a new role for public policy, non-governmental institutions, and financial and marketing measures in both emerging countries and so-called "advanced industrial countries." Policies are required to spread scarce resources (skilled labor, capital, technology, and other resources) throughout the developing world in order to widen the scope of global development *in situ*, rather than depending primarily on trade and migration, both internal and international, to do the job. This will also allow advanced industrial countries to grow in a more stable international environment without fear of dumping as wages and incomes rise on a world scale.

NEW POLICIES FOR SHARED DEVELOPMENT

The building blocks for a new set of policies begin with the understanding of a *new regionalism*--focused on directly addressing the issues of labor market interdependence and the need to spread development from the Second to Third Worlds beginning with a direct approach to Third World regions. Technology and private investment can be expected to generate new sources of productivity and income. But the lessons of recent years show how uneven and unstable such results can be if the consequences for labor markets are not addressed regionally as well as nationally.

One has only to look at Asia's *tigers*,--plus the giants China, India, and Japan--to see the dangers as well as the potential of growth through globalization. Latin America has its own lessons, from Mexico, Brazil, Argentina, Venezuela, and Chile. Even small emerging market countries like Costa Rica are threatened by the swamping effect of migration from its Latin American neighbors. Being resource-rich is not enough--though many advanced industrial countries such as the U.S., Australia, and New Zealand were built on resource wealth. The husbanding of resource rents for savings and investment, and public policies that build infrastructure for transport, communications, widespread access to credit, an educated and skilled workforce, a reliable legal system, and market-widening, go well beyond the removal of market barriers. National, state, and local politics and regional cooperation must all be involved in putting into place the various policies needed to facilitate commerce broadly in all regions. The essence of shared development is shared opportunity.

THE ROLE OF FINANCIAL REFORM: BACK TO THE FUTURE

The pattern of financial reform matters. A revival of structurally oriented financial policies is needed that attends to the *use* as well as the *source* of funds. Emigrant remittances complement capital flows, but they are insufficient to permit the convergence of rich and poor

finance for investments in education, health, and infrastructure as well as in productive local ventures including those of small-holders. The proliferation of financial institutions may require some fiscal incentives to bring about the widening regional use of funds, and not just the channeling of local savings to be re-lent in more developed regions.

We have learned from experiences in Mexico and elsewhere that even though remittances are an important source of income in regions of out-migration (Third World sub-regions), and even though remittance income is becoming a major source of foreign exchange earnings for the country as a whole, this income has not been adequately channeled into credit for local investment in human capital, infrastructure, or productive investment. And often savings flow upstream, from poor to rich regions, sectors, and income groups. Financial policies of state and non-governmental organizations are essential to offset this process. Emerging countries' policies are insufficient without the cooperation of advanced industrial countries. International institutions have the potential to build such cooperation. But the policy-making process must begin *within* developing countries.

Some argue that poor countries with abundant natural resources illustrate the curse of nature's bounty--especially if the returns to resources are squandered by profligate private wealth-holders, corrupt governments, or withdrawn by foreign investors. But the problem is not the existence of resource rents per se but the measures taken to ensure that they are saved and reinvested productively. In its period of rapid growth, Mexico showed how real and financial policies could bring about a widening of relative productivity levels and markets.¹⁷ The weakness was not in financial policy but in a fiscal policy that avoided adequate levels of domestic taxation, to profligate government expenditures that led to rising deficits, and that led to an overuse of foreign borrowing to fill the gap between savings and investment. China today

needs of regional development, to establishment of a broader and more equitable tax base, to rising real wages commensurate with rising productivity, and to a more balanced growth of domestic as well as foreign markets is essential. This is consistent with the goal of broadened agricultural credit, loans for economic and social infrastructure (including education, health, and social security), and improvement in the quality of lending by local credit institutions.

This is a time for a new approach to development policy that builds on the benefits of macroeconomic opening and stabilization measures by adding policies to promote a new regionalism. This involves the recognition that potential markets are not only located in regional growth centers and abroad. The domestic market begins at home. It can be widened by broadly facilitating regional productivity and the income that it generates. **The new regionalism is complementary to macroeconomic policy--it builds upon solid foundations. It does not pretend to do the job of predicting the utility of specific investments. Rather, it works as a catalyst among investors, workers, households, and government at the local and regional level to provide the financial, human, legal, and physical infrastructure. Such a foundation is essential to a broad-based development strategy that focuses not only on global competition and elite enclaves but on the entire domestic market.**

Globalization need not be the precursor of a New Dark Age if there is a commitment to Shared Development. In the 21st Century the impressive power of new technology has swung wide open the door of development. There are enough resources for all Three Worlds to join in the development process, absent the Cold War threat of global annihilation and an excessive fear of the forces of darkness. It is necessary to understand and respect the breadth of cultural differences, allowing the degree of market opening to be determined by individual nation states, in response to their own cultures and subject to the growing force of their own sub-regions.

There is no theoretical model or ideology that defies the moral neutrality (if not amorality) of markets.

Markets have immeasurable power to alter the status quo and bring about improved allocation of resources, higher productivity, and the potential for broad social benefits. But markets are not enough. Policies that facilitate the commercial activities of society at large, and that respect the wishes of minorities as well as majorities, are essential at all levels of government. That is the lesson we carry away from economic history and a careful examination of today's asymmetries both within and between countries in all three worlds. The energy of market completion is there to be harnessed. It should not be choked off by self-seeking barriers to exchange or policies that create socially damaging distortions. In a broad philosophical framework, growth itself is not the ultimate objective. Improvements in the quality of life are the goal. If such improvements are to be realized and sustained, this calls for cooperation among all participants and cultures, starting at the local and regional levels. Such cooperation will ultimately achieve welfare through upward convergence in which all regions and social groups are involved, whatever their nation state may be.

On Price Economic Pattern and an Aspect of Globalization

Shosuke Takemura

Okayama University

Japan

ABSTRACT

The patterns of deciding price are dependent on the main types of price mechanism. We can consider the relative difference between the manufactures sector and the agricultural sector in deciding the market price. Concretely those are realized alternatively under the fixed, flexible and mixed price economies. We can consider the relative difference by two indices between the manufactures sector and the agricultural sector in deciding the market price. I also partly refer to an aspect of globalization proposed by a renowned international economist, J. Bhagwati.

The fixed price is based on the mark-up principle. I am interested in the institutions and features of deciding and changing price in using the mark-up principle under a kind of the monopolistic pressure. The inclination to the fixed price economy we call rivalry is closely related with adaptability of the mark-up principle. The principle is closely related to the fixed price economy. We can see it is essential to depict the dynamic process of the country's production, namely, the technological change including the characteristics of pricing and R&D under that rivalry.

Introduction

J.R.Hicks distinguished the two equilibrium concepts with and without the storable stock as the nature of goods. He said the former is apt to be the fixed price type and the latter is flexible price type¹. We can consider the relative difference between the manufactures sector and the agricultural sector in deciding the market price. Generally speaking the goods in the manufactures sector are inclined to be storable and those in the agricultural sector are not. From the point of the nature of goods we can say that the price of the manufactures output is fixed and that of the agricultural output is flexible. So how should we adopt any fatal postulate regarding price economic pattern?

An English famous economist M. Morishima pointed aptly that the agricultural products was agreeable to flexible price market and the manufactures products was so to fixed price market and discussed the adaptability of the mark-up principle. In the real world the most developed countries are living in the two-sided economy, that is, mixed economy. I am interested in the method of the explanation in his argument.

The main point of Morishima's distinction is as follows. Why had only UK accomplished the secondary industrial revolution (around 1876-1895) rather sooner than other powers? If we had applied the comparative production cost approach to the reality of

UK then, the home country could probably have a specialty in the production of manufactures and the colonies could have that in the production of agricultures. While the home country could buy agricultural products from the colonies, the colonies could buy the manufactures such as consumers' goods and the capital goods from the home. In this case the material basis seems to be in trying to live together in mutual prosperity between the home and the colonies.

Three Types -Fixed, Flexible and Mixed -

Morishima was stimulated by the above Hicks' disputation and he made the following Table 1².

Table 1

Year	UK	Germany	France	Italy
1801	139			
1825-1835			200	
1841	65			
1860-1869		133		275
1872-1882			140	
1896-1900		46		214
1901	15			
1907	18		95	
1913		51		214
1919	16			181
1929	13	33		138
1939	13			103
1949	15	23	30	91
1959	10	15	23	59
1969	8	9	16	35

-Ratio of agricultural output to manufactures output (%)-

Source: M.Morishima (1984,p.39) and Carlo M.Cipolla(ed.),

The *Fontana Economic History of Europe*, vol.4 and vol.6

According to his suggestion and Table 1, UK had transferred from the flexible economy to the fixed economy in around 1890 - 1900. In those days European main other countries had still a lot of the flexible economic sectors. The Keynesian revolution in macroeconomics never happened without the transfer to the fixed economy in UK. All countries including the developing and developed economies were the primary industrial countries with the main agricultural sectors in the early ages. He also told us that the ratio

of the population in the primary industry to that in the secondary industry came to 50 % and more in the most industrial economies with the exception of UK until around 1945.³

Therefore I researched the ratio of agricultural sector's output to manufactures sector's output from 1975 to 2000 including United Nations, Japan and Korea in addition to the above five countries.

Table 2

Ratio of agricultural sector's output to
manufactures sector's output

	US	Japan	France
1975	19.7	14.4	16.0 *
1980	22.4	10.3	15.5
1985	18.0	8.6	15.6
1990	7.4	6.3	12.9
1995	6.1	5.5	12.3
2000	6.5	4.3	11.2
	Germany	UK	Italy
1975	9.0	11.7	17.4
1980	7.2	23.0	14.7
1985	6.9	28.0	13.0
1990	4.5	5.4	10.5
1995	4.0	5.7	10.8
2000	4.0	3.7	9.9
	Korea		
1975	-		
1980	-		
1985	-		
1990	19.7		
1995	14.3		
2000	11.1		

* 1977

Source: OECD: National Accounts 1975-1987, 1980-1992 and

National Accounts of OECD Countries 1990- 2001
: Values calculated by author

Table 2 shows the ratio of the agricultural sector's output to the manufactures sector's output from 1975 to 2000 in several developed countries. The agricultural sector's output includes agriculture, hunting, forestry, fishing and mining. The manufactures sector's output includes manufacturing, construction, electricity, gas and water. From these figures in the table we can see the historical trend of the economic development of each country. Western three countries except US and UK show the gradual decrease from 1975 to 2000. Asian two countries are in the same trend. Speaking of the price type, Germany and Japan belong to the fixed type as the values are relatively low. The movements are regular. France, Italy and Korea are the flexible type as the values are relatively high. And UN and UK are mixed type as the values irregularly varied.

We can know Japan and Germany are typical fixed economies at present. Historically UK used to show rather low ratio since in the late 19th century. In those days two countries US and UK had higher ratios than other two countries in Europe. Seeing these variations we can know that every developed economy has an amusing inclination to become the fixed price economy with the years.

Figure 1

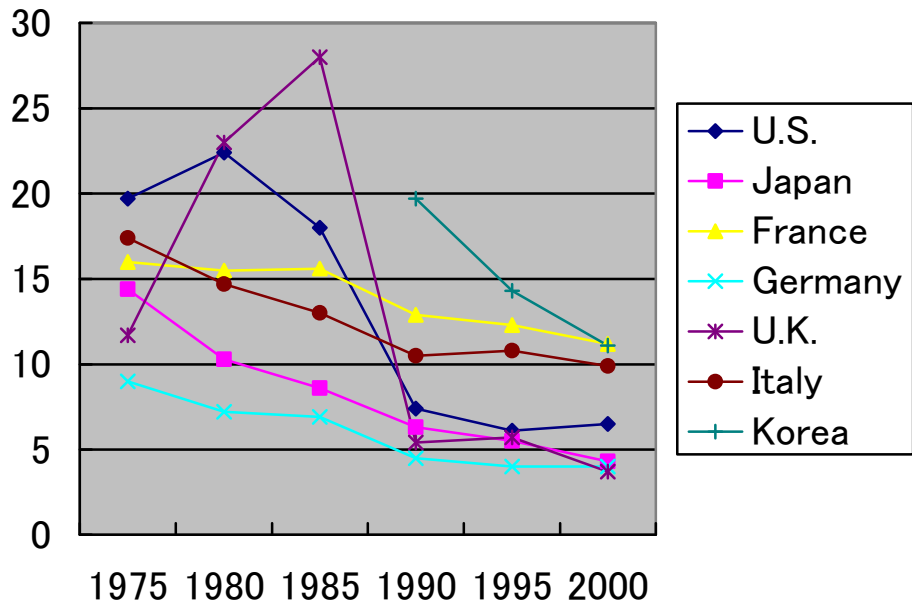


Figure 1 shows several line graphs according to values in the table 1. This figure is used in order to compare with the figure mentioned later.

In table 3 the agricultural sector's employment includes those of agriculture, hunting, forestry, fishing and mining. Manufactures sector's employment includes those of manufacturing, construction, electricity, gas and water. This table makes us remind that there are two types, namely, Asian type and Western type as the remark mentioned above. While the former shows the larger difference between the output ratio and employment ratio, the latter shows the smaller one between the two ratios.

Table 3
Ratio of agricultural sector's employment to
manufactures sector's employment

	US		Japan		France	
1975	(19.7)	20.0	(14.4)	44.3	(16.0*)	28.7*
1980	(22.4)	18.5	(10.3)	38.0	(15.5)	27.6
1985	(18.0)	17.2	(8.6)	33.5	(15.6)	27.1

1990	(7.4)	11.0	(6.3)	26.1	(12.9)	21.4
1995	(6.1)	13.2	(5.5)	22.5	(12.3)	20.3
2000	(6.5)	12.4	(4.3)	21.4	(11.2)	19.5
	Germany		UK		Italy	
1975	(9.0)	17.9	(11.7)	10.9	(17.4)	42.0
1980	(7.2)	14.8	(23.0)	11.2	(14.7)	37.8
1985	(6.9)	15.5	(28.0)	12.2	(13.0)	37.3
1990	(4.5)	11.0※	(5.4)	5.0	(10.5)	23.1
1995	(4.0)	9.1	(5.7)	5.3	(10.8)	19.5
2000	(4.0)	8.6	(3.7)	5.7	(9.9)	16.4
	Korea					
1975		-				
1980		-				
1985		-				
1990	(19.7)	50.5				
1995	(14.3)	37.3				
2000	(11.1)	38.7				

Values in parentheses: the same as Table 1

- no data , * 1977, ※ 1991

Source: OECD: National Accounts 1975-1987, 1980-1992 and
National Accounts of OECD Countries 1990- 2001

: Values calculated by author

Ao and Mo mean the agricultural sector's output and that of manufactures sector. And Ae and Me mean the agricultural sector's employment and that of manufactures sector. So we can consider logically the following formula.

$$Ao/Mo - Ae/Me < 0 \text{ means } Ao/Ae - /Mo /Me < 0$$

$$\text{Therefore, } Av - Mv < 0$$

In this formula, it is obvious that Av and Mv mean the productivity of the agricultural sector and that of manufactures sector. The index (Av—Mv) is negative.

We can see several fact-findings by comparing to two values in each entry in Table 3.

Observing the trend, the ratio Ae/Me regarding employment is also decreasing while Ao/Mo regarding output is decreasing. Though the values of each country are in variety, the productivities Av in the manufactures sector of Asian countries including Japan will

be rather higher than M_v of Western countries. In Japan particularly the difference of the index ($A_v - M_v$) will be the largest among all countries. United Kingdom only shows that ($A_v - M_v$) is positive until 2000. United Nations is also positive until 1985. In western countries two countries show some amusing distinguished features.

Table 4 shows the practical values about the real output per capita in five countries excluding Italy and Korea regarding the ratio between 1973 and 1992. In this table Japan has the highest value, while those of US and UK are low. The other two Western countries have the middle values. We can observe there is a certain consistency between fact-findings seeing in Table 3 and those in this Table 4⁴. We need to notice this table is macroscopic and Table 3 is microscopic. It is fatal that the same fact-findings are derived from not macroscopic observation but from microscopic one.

Table 4

Real output per capita in five countries - Prices in dollars at 1985 -			
	US	Japan	France
1973	14379	8539	10316
1992	17945	15105	13918
1992/1973 *	1.2	1.8	1.4
	Germany	UK	
1973	10315	9609	
1992	14709	12724	
1992/1973 *	1.4	1.3	

* : Ratio calculated by author

Source: Roberts Summers and Alan Heston, Penn World Tables, 1995 and Olivier Blanchard, Macroeconomics, P.238, 1997.

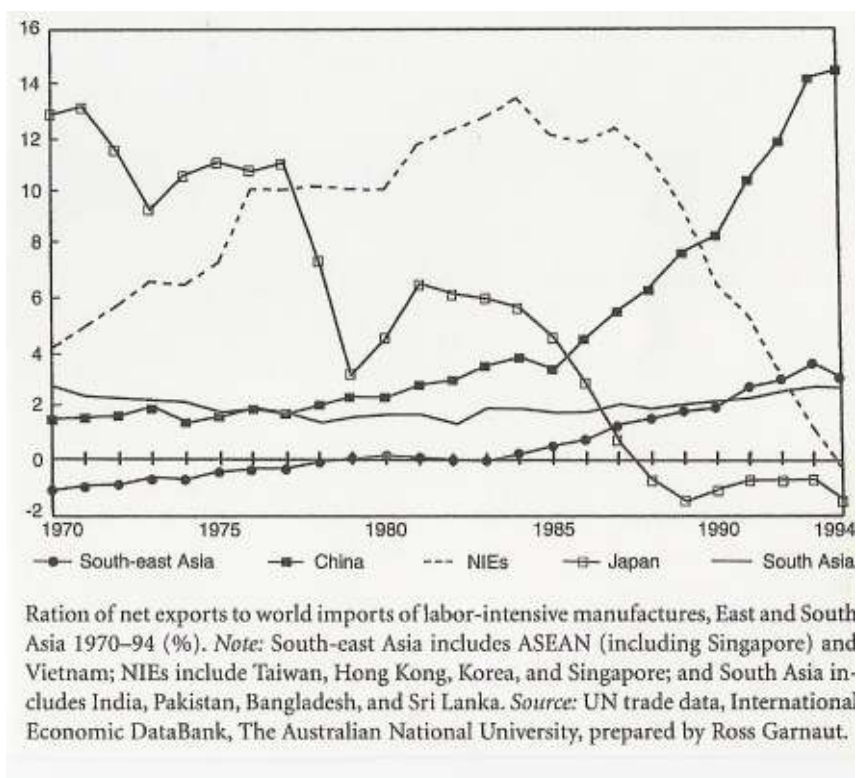
An aspect of Globalization in Asian countries

A famous International Economist J. Bhagwati displayed the following diagram prepared by R.Garnnaut in his book.

He told - This more comforting picture is exactly what the Australian economist Ross Garnaut showed in 1996. Thus in the chart below one can witness how East Asia steadily net exports of labor-intensive manufactures in the 1970s while Japan (whose income had been growing rapidly) reduced them. The same pattern repeated itself in the period from 1980 to 1994, when the net exports of East Asian countries (the NIEs, newly industrializing countries) declined from over 10

percent of world trade in labor-intensive manufactures to nearly zero, while China went in a crossing diagonal from around 2 percent to over 14 percent. The difference between the two leaves a greatly reduced net impact on what Garnaut calls the "old industrial countries," the rich nations, on average.⁵ Figure 2 shows their situations in Asian countries 1970s through 1990s.

Figure 2



He also pointed an essential postulate. Because of technical change and capital formation in the countries that are growing out of the developing countries (for example, east Asia in the 1970s and 1980s), the entry of new exports of labor-intensive manufactures by developing countries is offset by the withdrawal of exports of labor-intensive manufactures by the rapidly growing out of developing countries. Seeing the cases of NIEs and Japan in his Figure, the motions from 1980s to 1990s look like those in the cases of UK and Japan during the same eras in my Figure 1. The motion of China's case shows the exact opposite to those of NIEs and Japan.

By his suggestion the common mistake is to assume that trade in

labor-intensive manufactures will result in exports overflowing from the developing countries in an endless process. Their piling into the markets of the developed countries can't lower both prices and real wages there⁶. Inside the Asian countries the common phenomenon of so-called 'ladders of comparative advantage' is now happening.

What comes to happen in 'rivalry'?

Schumpeter's statements are as follows: - under the conditions created by capitalist evolution, perfect and universal flexibility of prices might be depression further unstabilize the system, instead of stabilizing it as it no doubt would under the conditions envisaged by general theory. Again this is to a large extent recognized in those cases in which the economist is in sympathy with the interests immediately concerned, for instance in the case of labor and of agriculture; in those cases he admits readily enough that what looks like rigidity may be no more than regulated adaptation⁷ - . He is likely to suppose these situations of rigid price will be observable in the case of the formation of agricultural sector's output both in the of short-run and in long-run periods. He distinguishes the lower limit of competitive price from the upper one of monopoly price.

Now the new word 'rivalry' does not acquire its citizenship in a well-known standard economic theory yet. Though in rivalry every producer is able to sell differential output, he has many competitors in the same market place. In rivalry it is just sufficient to make one of them form. In other words the meaning of rivalry has more monopolistic than 'perfect competition' and does more competitive than 'oligopoly'.

There are two factors affording a kind of creative destruction to the existing innovative activity. The former is mainly related to the price formation and the level of cost. We call it 'price-type variable' - price of output, values of mark-up and firm's cost function. The latter is mainly related to the efficiency of output and firm's R&D action. We call it 'non-price type variable' - productivity of output, products differentiation and country's share of output. Both variables are closely connected each other. When every country makes the good job in R&D, it is surely able to expand its productivity. Schumpeter attached a special importance to these two variables. These variables often cause rivalry with both monopolistic forces and competitive forces.

Now the features of new concept 'rivalry' are as follows. The first is that price is not always distant from marginal cost even in the long-run. The second is that products differentiation exists definitely among all products. The third is that barriers of entry are dependent on not only their cost function but also strength of rivalry under many potential suppliers. Rivalry holds good to make clear discretion of non-price type variable. In rivalry the firm using a good chance of R&D can always seize a considerably high growth rate of demand. By this rivalry the country can enjoy some merit by inducing the economy of scale or decreasing cost to scale. For instance a drastic price falling brings the firm cost falling through rivalry.

In real countries there are three sectors, namely, agricultural sector, manufacturing

sector and services sector in their economies. No matter what the price formation of services sector may be, we can decide the dominant type of price economy by researching two kinds of ratios between agricultural sector and manufacturing sector from the microscopic view as stated above. What the fixed price economy is dominant means that the price structure may be in rigidity, in other word, inflexibility in rivalry. Concretely saying the countries having lower ratio are able to enjoy larger output and profit from a good chance of R & D than those having higher ratio.

The Operation of Mark-up Principle

At first we like to formulate cost function and mark-up principle. Our interest is whether it could be useful to understand an technical change (for example, R&D) in the sectors producing goods in one country.

$$\begin{aligned}
 P &= m \times LMC \\
 LMC &= F (A_v, M_v) \\
 m &= e/(e - s)
 \end{aligned}$$

P and LMC are price and long-run marginal cost. A_v and M_v mean the productivity of the agricultural sector and that of manufactures sector as mentioned before. Three signs, m , e and s are mark-up, elasticity of demand and market share at the concerned industry in the country. Two indices, A_v and M_v , are considered to operate as a determinant of LMC. In fact in the sectors producing goods including manufactures sector and agricultural sector, we can estimate that the value of LMC is almost the same as that of LAC. The mark-up is equal to the ratio of price to its marginal cost. The cost function is subject to decreasing cost to scale through the technological change. Depending on one of the three patterns of price economy as we mentioned before, the country can decide the plausible market price,

As Schumpeter also used to emphasize of importance of the rate of increase of total output, Schumpeterian economists will introduce productivity of factor of production in the cost function. Winter developed an evolutionary theory of technological change and simulations of expected level of innovative potential entry in the system he called Schumpeterian regimes. Basing on the postulates of his evolutionary growth model, he told us, - The model employed is Markov model of a single industry in which firms produce homogeneous product and in which cost reduction through productivity improvement is the major competitive weapon -. He also referred to the situations of relatively restrained competition basing upon the mark-up formula including the 'Cournot's conjecture' ⁸. From the sight of individual country the rate of expansion of total output change will depend on the rate of price change.

We can say mark-up m changes with the level of market share and the net return of R&D concerned.

Semmler aptly told us on Schumpeter's theory⁹, - First, competition is not limited to price or quantity adjustments. It is described as an evolutionary process, as a process of "creative destruction". The engines of this development are large firms. ...The incentives for developing these types of technical change originate in transient surplus profit. ...The most important variable for this evolutionary process is the size of the firm...Second, Schumpeter stresses that competition is not necessarily an equilibrating force. When referring to the existence of large firms and their rivalry. ...Third, as in Marx, competition is an evolutionary process, one of rivalry between firms motivated by the search for surplus profit. He calls this surplus profit the transient "monopoly profit" of new processes and new products: "Thus it is true that there is or may be an element of genuine monopoly gain in those entrepreneurial profits which are the prizes offered by capitalist society to the successful innovator...in Schumpeter's view, the large firms are powerful engines of progress and "in particular of the long-run expansion of total output" -. Technology itself doesn't always fall cost, but firm's hard effort to adapt his technological innovation to R&D action. Hesitating a timely R&D action is severe for firm's own survival in chronic depression of the economy. In some manufacturing sectors, for example, semi-conductor, automobile and cellular phone the growth of demand is rather high. There used to be piecemeal falling price in the long-run with the rise of productivity of output. In rivalry the suppliers are apt to have fixed prices for selling, but to keep frequently their own market share by changing their selling prices. Even if the price can overshoot to the lowest level with almost null profit, there will be the force of recovery to a kind of pseudo stable equilibrium, in other words, 'the problem of indeterminateness' of final stable equilibrium. In rivalry there is indeterminateness, so to speak, a kind of the rigid disequilibrium regime. An existence itself of this mechanism forms an important non-barrier for entry.

Schumpeterian economists will like to call this economy 'rigid price economy'. In fact Schumpeter has been very interested in the rigid price under monopolistic practices in depression, not in prosperity in his 'plausible capitalism'. His statement is as follows: - under the conditions created by capitalist evolution, perfect and universal flexibility of prices might be depression further unstabilize the system, instead of stabilizing it as it no doubt would under the conditions envisaged by general theory¹⁰.

In monopolistic practices there is indeterminateness, so to speak, a kind of the rigid disequilibrium regime. That is reason why the coordinating of market share is able to keep up surplus profit. As a result it brings the larger mark-up value m through not being more elastic but being more unelastic demand.

Concluding Remarks

There is saying that 'look before you leap'. Though many economists look to be acquainted with the commonly accepted vision, I am wondering if it isn't time now to think over the appropriateness. The patterns of deciding price is dependent on the main types of price mechanism. We can consider the relative difference between the manufacturing sector and the agricultural sector in deciding the market price. I also considered an aspect of globalization related some patterns of Asian countries' exports.

I am interested in the institutions and features of deciding and changing price in using the mark-up principle under the monopolistic pressures namely, in the situations we call rivalry. Concretely those are realized under the fixed, flexible and mixed price economies. We know the mark-up principle is closely related to the fixed price economy.

A prominent economist Morishima's postulate is verified even in rivalry, with the recent new productivity indices including 'output and employment' data. Schumpeter is telling us that the clever country is able to use his wisdom thoughtfully and effectively by creating, processing own pricing method and innovational knowledge, namely, R&D for the survival.

References

1. Bhagwati, J., (2004), *In Defence of Globalization*, Chap. 10, Oxford University Press, 2004.
2. Dahiya, S.B. (ed.), (1999), edited by *The Current State of Economic Science*, Vol.IV, Spellbound Publications Pvt. Ltd.
3. Hayek, F. A., (1948), "The Use of Knowledge in Society and The Meaning of Competition", in *Individualism and Economic Order*, University of Chicago Press.
4. Heertje A. (ed.), (1981), edited by *Schumpeter's Vision: Capitalism, Socialism and Democracy after 40 Years*, Holtsunders UK Ltd..
5. International Department : Bank of Japan, *Comparative Economic and Financial Statistics- Japan and Other Major Countries-* , 1983- 1998.
6. Marshall, A., (1890), *principles of Economics*, Book I , Chap.3 and Book IV, Chapt.11-12 and 14, Macmillan and Co.
7. Mason, E.S.,(1991), "Schumpeter on Monopoly and the Large Firm" in *J.A.Schumpeter: Critical Assessments*, Vol. IV, Routledge.
8. Martin,S., (2002), *Advanced Industrial Economics*, Chap.3, Blackwell.
9. Morishima, M., (1984), *Economics of Country without Resources* (Japanese Version), Iwanami Shoten.
10. Nelson, R.R. and S.G.Winter, (1982) *An Evolutionary Theory of Economic Change*, Chap.2 and Chap.5, Belknap Press of Harvard University Press.

11. Schumpeter, J.A., (1934), *The Theory of Economic Development- An Inquiry into Profits, Capital, Credit, Interest and Business Cycle-*, Chap 1,2,4 and 6, Oxford University Press.
12. Schumpeter, J.A., (1939), *Business Cycles*, Vol. I - II , McGraw- Hill Book Company.
13. Schumpeter, J.A., (1943), *Capitalism, Socialism and Democracy*, Part II , Unwin University Books.
14. Semmler, W., (1991), “ Marx and Schumpeter on Competition, Transient Surplus and Technical Change” in *J.A.Schumpeter: Critical Assesments*, Vol. IV, Routledge.
15. Takemura, S., (1997), *Economic Analysis of Industry and Competition* (Japanese Version), Ochanomizu Shobo.
16. Takemura, S.,(2000), ”Implications of Competitive Power of Shumpeter’s Theory” in *Economic Theory in the Light of Shumpeter’s Scientific Heritage*, Vol.2,, V. Orati and S.B.Dahiya (ed.), Spellbound Publications Ltd.
17. Winter, S.G., (1991),“Schumpeterian Competition in Alternative Technological Regimes”, in *J.A.Schumpeter: Critical Assessments*, Vol. IV, Routledge.
18. Wood, J.C. (ed .),(1991), *J.A.Schumpeter: Critical Assessments*, Routledge.

Notes

1. Hicks introduced the meaningful distinction between fixed price and flexible price. The fixed price does not always mean that it keeps unchangeable at all.
2. This table is dependent on an excellent idea of Morishima (1984, p.39). It seems he was stimulated by the above Hicks’ useful disputation.
3. Morishima showed the following table.
-Ratio of the primary industrial population to the secondary industrial population (%)

Year	Japan	US	UK	Germany	France	Italy
1866-1875	1700	200	—	—	113	153
1876-1885	—	200	26	116	—	121
1886-1895	866	150	22	92	—	—
1896-1905	554	123	19	—	79	158
1906-1915	344	100	17	85	—	139
1916-1925	250	79	14	71	81	157
1926-1935	274	71	13	71	59	124
1936-1945	188	55	13	66	—	121
1946-1955	—	34	11	52	60	132
1956-1965	94	21	—	25	54	68
1966-1975	36	13	6	14	30	40

Source: the Bank of Japan, Data of Statistical Bureau,1966
I had also the following values from the other material.

Table
Ratio of primary industrial products to manufacturing products

	Japan	US	UK	Germany
1960	57	23	19	20
1970	26	12	8	8
1980	13	11	7	6
1990	9	11	8	5
1996	6	10	9	4

	France	Italy
1960	31	58
1970	18	34
1980	18	21
1990	16	14
1996	12	11

Source: Comparative Economic and Financial Statistics
- Japan and Other Major Countries- , 1983- 1998
: values calculated by author

This table shows ratio of primary industrial products to manufactures products from 1960 to 1996 in several developed countries. These values are given in order to know mere historical trend. For instance in 1960 Japan had very high ratio but it has rather low ratio in 1996. We can know Japan and Germany is now typical fixed economies. Historically UK used to show rather low ratio since the rise of well-known industrial revolution in 19th century¹. Two countries US and UK have higher ratios than other two countries in Europe. Generally speaking every developed economy has a common inclination to be fixed price economy with the years.

4. We are able to research the comparative method by using not the countries' real outputs per capita but the real wages of those.
5. Bhagwati, J., (2004), pp.126.
6. Bhagwati, J., (2004), pp.122-132.
7. Schumpeter (1943) p.95.
8. specially Winter (1991) pp.271-304. Arranging the mark-up formula in his model, $m = e / \{e - s (1 + \lambda)\}$. Here e and s mean elasticity of demand and market share, under the given 'conjectural variation' factor λ influenced by

the elasticity of supply side. By his simulation when s increases e decreases, that is, demand becomes more inelastic with the restrained entry into the industry. In the case of $\lambda = 0$, it is equal to the ordinary mark-up in the text.

9. Semmler (1991), pp.76-78.

10. Schumpeter (1934) pp.66-67. Also confer Schumpeter (1939), Vol. I - Vol. II and Schumpeter (1943), Part II.