

Globalization and Economic Goals

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Traditionally, evaluations of the impact of trade liberalization have focussed on measuring social welfare. In this paper we adopt the more pragmatic approach of referring to the goals of efficiency, equilibrium, equity and economic growth. Results from a statistical survey of 70 countries indicate that there is a positive and significant relationship between the goal of equilibrium and the extent of economic integration. However, this latter is only positively correlated with economic growth in the case of developing countries. As to efficiency, the least we can say is the globalization drives a reconfiguration of the industrial landscape, underscoring the legitimacy of policies supporting the competitiveness of firms.

Keywords: Globalization, Equilibrium, Efficiency, Equity, Economic Growth.

1. Globalization and Economic Goals

To understand the impact of globalization we must first agree on the objective functions. This is no simple task. Economic literature frequently draws on a measure of social welfare, comprised of consumer surplus, corporate profits, and government revenues, to demonstrate the virtues of trade liberalization, even when it is unilateral. But this analytical approach, though interesting, remains abstract and relies on very restrictive assumptions. Another approach, doubtlessly useful though often overlooked, focuses on economic goals, namely three much-discussed goals, economic efficiency, economic equilibrium, and "economic equity", to which is added the search for economic growth. What impact does globalization have on these goals?

Despite an abundant literature, the available analytical results are controversial, even contradictory. The object of this paper is to take stock of this literature, be it theoretical or empirical, and to recast the

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main issues in light of the perspective provided by the most recent statistical data. This paper is consequentially structured into two chapters. The first is devoted to examining the criteria of efficiency within the framework of the positive theory of international trade. The second chapter applies the results of previous studies to the remaining goals and includes a regression on cross-section data.

1.1. Efficiency from the Perspective of the Spatial Reconfiguration of Industries

Efficiency is defined as the optimal allocation of resources and technical efficiency, i.e. producing the types of goods and services a society desires with the greatest possible productivity. It is widely accepted, if only because of the failures of the socialist economies of Eastern Europe, that the market economy—and consequently free trade based on the principle of comparative advantage—is the simplest way to achieve this goal. This leads to a hierarchy of economies based on industrial specialization.

In the simplest terms, this means that under conditions of free trade, perfect competition on goods and factor markets, identical technology across countries and, of course, costless transportation, the Heckscher-Ohlin theorem should apply, to wit: *each country will export the good intensive in its abundant factor*. The reader will have noted the inherent weakness of this predictive model. First, verification of the HO model is problematic in a world in which there are numerous goods, inputs, and countries, because it is conditional on the aforementioned very restrictive assumptions. We refer to the following statement by Williamson and Milner (1991, pp. 48–52), “From the highly specific of the HO model, adding to only one of the dimensions of the model in isolation and as currently formulated (i.e. adding a third country to two commodities and two factors, or a third commodity to two factors and countries, etc.) tends in fact to cause difficulties. With an additional country, it is possible to predict the trade patterns of the countries at the extreme of the rank order of relative factor endowments [...] but the trade pattern of the intermediate country is indeterminate. Alternatively, if we add a third commodity by itself, the pattern of production becomes ambiguous, and therefore the detailed pattern of trade cannot be predicted.”

Let us briefly look at some recent studies on the subject to fix these notions. Bowen et al. (1998, pp. 259–261) attempt to demonstrate a generalization of the principle of comparative advantage. Their

DATA FOR THE STATISTICAL ANALYSIS

Country	Degree of Openness	Per-capita GDP	Growth of Per-capita P GDP	CPI % 1990-98	Unemployment Rate 1994-97	GINI Coefficient
OECD						
Australia	42	20 640	1,7	2,2	8,4	35,2
Austria	85	26 830	2,6	2,6	5,3	23,1
Belgium	141	25 380	2,3	2,1	9,0	25,0
Canada	80	19 170	1,8	1,7	9,2	31,5
Denmark	69	33 040	1,9	2,0	5,4	24,7
Finland	71	24 280	2,4	1,6	14,4	25,6
France	49	24 210	2,1	1,9	12,3	32,7
Germany	52	26 570	---	2,6	9,8	30,0
Greece	40	11 740	2,4	10,7	9,6	32,7
Ireland	142	18 710	3,0	2,2	10,3	35,9
Italy	50	20 090	2,5	4,2	12,5	27,3
Japan	21	32 350	3,5	1,0	3,4	24,9
Korea	85	8 600	6,6	5,6	2,6	31,6
Mexico	64	3 840	1,5	19,9	3,5	53,7
Netherlands	105	24 780	1,9	2,4	5,5	32,6
New-Zealand	57	14 600	0,7	2,0	6,7	43,9
Norway	75	34 310	3,0	2,1	4,1	25,8
Portugal	72	10 670	3,2	5,2	7,5	35,6
Spain	56	14 100	2,3	4,2	20,6	32,5
Sweden	81	25 580	1,4	2,5	7,9	28,0
Switzerland	75	39 980	1,2	2,0	4,1	33,1
United Kingdom	58	21 410	1,9	3,0	7,1	36,1
United States	26	29 240	1,6	2,8	4,9	40,8
Turkey	53	3 160	2,1	82,1	6,4	41,5
Developing countries, South America and Caribbean						
Argentina	23	8 030	0,4	12,9	16,3	---
Brazil	18	4 630	2,2	333,7	6,9	60,0
Chile	56	4 990	1,9	10,5	5,3	56,5
Colombia	34	2 470	2,0	22,6	12,	57,1
Costa Rica	100	2 770	1,2	16,9	15,7	47,0
Dominican Rep.	70	1 770	2,3	9,6	15,9	48,7
Haiti	41	410	-0,8	24,8	---	---
Jamaica	112	1 740	-0,4	29,2	16,0	36,4
Nicaragua	111	370	-3,3	62,9	---	50,3
Venezuela	40	3 530	-0,8	53,6	10,3	48,8

Source: World Bank (2000), *World Development Indicators*, Washington D.C.

DATA FOR THE STATISTICAL ANALYSIS

Country	Degree Of Openness	Per-capita GDP	Growth of Per-capita GDP	CPI % 1990-98	Unemployment Rate, 1994-97	Gini Coefficient
AFRICA						
Algeria	47	1 550	1,0	24,8	24,6	35,3
Benin	55	380	0,1	11,6	—	—
Cameroon	51	610	1,3	8,6	—	—
C-A-Rep.	41	300	-1,2	6,7	—	61,3
Chad	51	230	-0,6	9,5	—	—
Côte d'Ivoire	82	700	-0,8	8,5	—	36,7
Egypta	40	1 290	3,5	10,5	11,3	28,9
Gabon	91	4 170	0,4	5,7	—	—
Ghana	63	390	-0,8	30,4	—	32,7
Kenya	57	350	1,3	18,8	—	44,5
Mali	58	250	-0,1	6,3	—	50,5
Mauritania	95	410	-0,1	6,6	—	38,9
Morocco	38	1 240	1,8	4,6	17,8	39,5
Mauritius	130	3 730	3,8	7,0	9,8	—
Niger	40	200	-2,5	7,2	—	50,5
Nigeria	55	300	0,0	40,4	—	50,6
Senegal	71	520	-0,4	6,6	—	41,3
South-Africa	50	3 310	01,	9,6	5,1	59,3
Togo	74	330	-0,6	10,2	—	—
Middle East						
Iran	28	1 650	-1,2	28,1	—	—
Israel	75	16 180	2,4	11,1	7,7	35,5
Kuwait	92	—	-3,0	2,1	—	—
Saudi Arabia	67	6 910	0,5	1,5	—	—
ASIA						
Bangladesh	33	350	1,4	5,4	—	33,6
China	39	750	6,8	11,3	3,0	40,3
Hong Kong	250	23 660	5,5	7,7	2,2	—
India	25	440	2,7	9,7	—	37,8
Indonesia	98	640	4,7	11,2	4,0	36,5
Malaysia	207	3 670	4,1	4,1	2,5	48,5
Nepal	58	210	1,1	9,3	—	36,7
Pakistan	36	470	2,7	10,8	5,4	31,2
Philippines	116	1 050	0,9	8,7	7,4	46,2
Singapore	287	30 170	6,4	2,1	2,4	—
Sri Lanka	78	810	3,0	10,7	11,3	34,4
Thailand	101	2 160	5,0	5,2	0,9	41,4
Vietnam	95	350	—	—	—	36,1

Source: World Bank (2000): *World Development Indicators*, Washington D.

approach consists of first establishing a general relationship between price and quantity variations derived from the characteristics of the income and expenditure functions in competitive equilibrium. Subsequently, they use these relationships to show that price differences under autarchy are correlated with net exports. This is a remarkable conclusion on the automatic adjustment of the supply of domestic production subsequent to a price variation, as it abstracts entirely from the relevant elasticities. Similarly, the demonstration of the HO model in a multidimensional framework by Bowen et al. (1998, pp. 261–263) relies on the assumption of full employment of resources and perfect competition. Leamer's approach (1987), demonstrating and generalizing the HO model also merits mention. The author establishes the following relationship:

where:

- V : matrix of endowments,
- A : matrix of the input requirements by unit of output,
- X : matrix of outputs.

The generalization proceeds on the assumption that the following characteristics obtain for all countries: the values in the matrix A and preferences are identical (consumption of a fixed proportion of global production), full employment of resources, and A has an inverse. However, in the case of m goods and n factors, such that , the matrix A is not square, and hence cannot have an inverse. Under these conditions the results are indeterminate, in the sense that the direction of trade is unpredictable. Worse, as Williamson and Milner (1991, p. 50) advisedly remind us, in the real world there are more goods than countries, and more countries than factors. We find further difficulties at the level of empirical tests of the HO model. In general, the test procedure is to regress net exports by category of good on several explanatory variables, including: the capital/labor ratio, human capital, and the intensity of research and development. In the wake the Leontief Paradox (1953), numerous empirical studies attempted to validate HO, including Diab (1956), Vanek (1959), Keesing (1967), Baldwin (1971), Weiser and Say (1972), Balassa (1979), Stern and Maskus (1981), and Leamer (1987), to name but a few.

Leamer's empirical analysis (1987) is one of the most exhaustive, as it examines 10 product groups (labor intensive, capital intensive,

machinery, and chemicals, etc.) and 60 countries. His conclusions indicate that, while resource abundance does a good job of explaining the direction of trade of primary goods, no clear and unequivocal conclusions can be drawn as to the sources of comparative advantage in the manufacturing sector. In one of a series of studies on the predictive strength of the HO model, Leamer (1995) observes that:

Comparative advantage in labor-intensive manufactures (apparel and footwear)... is very much in turmoil, with a large number of countries shifting from being net importers to being net exporters...,” while other categories of goods, notably forest products, machinery and chemicals present a degree of permanence in their comparative advantage.

Thus, we see that it is important to refrain from rigid generalizations of the HO model for all goods and services. Without belaboring the issue of empirical verification, it should be noted that most of these studies are not particularly robust, as they suffer from poor data quality (especially in the measure of capital) and also because of issues surrounding the classification of industries by factor intensity. To begin, determination of a good's factor content involves more than gross measures of capital and skilled or unskilled labor.

Verification of the HO model is further complicated by the inclusion of services, for which the statistical apparatus is insufficiently developed and not comparable across countries. Finally, it must be borne in mind that the HO model fundamentally relies on trade freedom, while the prevailing trade policy is a form of protectionism.

Beyond these observations, which considerably compromise the applicability of the HO model and cast doubt on our ability to fully appreciate the relationship between globalization and the goal of efficiency, some realities may be discerned. Indeed, countries' competitive positions are far from static, but are in constant evolution in tandem with their access to technologies. Structural adjustments thus assume a permanent character rather than being transitory shocks. Held et al. (1999, pp. 185–187) astutely observe that after the second world war many countries in the OECD, confronted with a technological lag vis-à-vis the United States, simply directed their exports elsewhere. Reconstruction of the European and Japanese economies, largely facilitated by the Marshall and Dodge plans respectively, allowed firms in these countries to adopt up-to-date technologies and to expand, i.e.

to become international. Thus, by the end of the 1960s, the U.S. economy was forced to retool its steel, textile, and clothing factories, as these could no longer compete with foreign competition. Simultaneously, it was being driven by new sectors, such as computers, telecommunications, and electronics. American dominance of high-tech industries was challenged by European and Japanese firms during the 1980s. We see that, as technology spreads, global trade increases and competition becomes fiercer. Furthermore, the rent to technology proves ephemeral. According to Minc (1997, p. 23): "In a world dominated by the flow of information and by the internet, everything becomes accessible: patents are exposed as paper barriers, technological advances prove transient, and rents are forfeit²".

By and large, the United States, Japan and the countries of Northern Europe have largely abandoned the production and export of low-tech goods and specialized in those that are intensive in skilled labor. As to the newly industrialized countries of Korea, Singapore, Thailand, Hong Kong and Brazil, they focussed on exporting goods intensive in unskilled labor during the first phase of industrialization over the period 1970–1980. However, we now see some of these countries, notably Korea, Mexico and Hong Kong, beginning to excel in exporting products with a high technological content. A glance at Table 1 reveals these significant changes in the structure of exports.

Thus, under the joint influence of globalization and the diffusion of technology, the industrial fabric of every country is in a perpetual state of flux. Is it in the nature of this structural impact of globalization to undermine the interests of nations' citizens? Two principal arguments are usually invoked to justify this claim: i) deindustrialization of the developed world, and ii) branch-plant economies of developing countries. Both of these arguments are fallacious for the following reasons. While it is true that manufacturing tended to decline relative to services in industrialized countries, we see that value added in the manufacturing sector (measured in constant dollars) as a percentage of GDP remained virtually constant between 1970 and 1994.

Rowthorn and Ramaswamy (1997, p. 3) explain well that the relative decline of employment in manufacturing in industrialized countries is attributable more to the fact that this sector experienced greater productivity increases than the service sector. Moreover, despite

² Translation by the author.

TABLE 1
EVOLUTION OF THE STRUCTURE OF EXPORTS BY PRODUCT GROUP FOR SELECTED COUNTRIES (IN %)

COUNTRY	EXPORTS FOR SELECTED COUNTRIES (IN %)												
	Foodstuffs		Minerals And metals	Crude Oil	Petroleum Products	Chemicals	Textiles, fabric and Clothing	Non-electrical machinery	Electrical Machinery	Transportation equipment	Manufactured goods		
	All	Raw Material											
Canada	1970	12.2	10.2	5.6	20.4	3.8	0.3	3.4	1.1	7.5	3.3	21.6	50.6
	1995	7.5	9.3	2.2	6.7	3.7	1.1	5.8	1.4	9.5	5.0	24.9	61.0
United Kingdom	1970	6.5	2.3	6.4	5.3	0.1	-	3.6	7.6	20.4	7.2	13.4	80.1
	1995	7.5	0.9	3.9	2.7	4.2	1.5	5.5	4.4	19.5	12.6	10.7	81.6
United States	1970	16.0	4.9	6.1	5.2	-	1.1	6.0	3.2	19.7	7.0	15.3	66.7
	1995	10.6	3.9	3.0	2.7	-	1.0	10.4	3.5	19.5	14.7	13.7	77.3
France	1970	15.1	3.1	0.7	4.3	-	1.5	9.2	8.9	12.7	6.2	14.2	73.7
	1995	14.2	1.4	0.7	2.4	-	0.2	12.7	4.9	13.0	9.7	6.7	76.9
Germany	1970	3.5	1.5	0.6	3.0	-	0.9	12.0	6.4	22.3	8.6	15.6	87.5
	1995	5.0	1.1	0.7	2.6	-	0.7	13.2	4.6	18.8	11.3	18.6	84.8
Japan	1970	3.5	1.6	0.9	1.4	-	0.2	6.4	12.5	10.4	12.3	17.8	92.5
	1995	0.5	0.6	0.1	1.1	-	0.5	6.6	2.9	24.1	22.9	20.3	95.2
Italy	1970	8.5	1.6	1.0	1.7	-	4.9	6.9	13.9	18.9	7.6	10.4	82.9
	1995	6.5	0.7	1.1	1.4	-	1.2	7.6	11.8	20.1	7.8	9.5	89.2
India	1970	29.7	5.6	0.5	11.9	-	0.6	2.3	26.7	1.8	1.1	1.8	51.7
	1994	15.5	1.2	1.6	3.5	-	11.6	8.5	29.0	2.8	1.5	2.9	76.2
Republic of Korea	1970	9.6	7.1	0.2	5.7	-	0.6	1.4	41.1	1.0	5.3	1.0	76.5
	1995	2.3	1.3	0.2	1.0	-	1.9	7.3	15.0	9.6	28.9	13.1	93.3
Mexico	1970	39.7	9.1	0.5	15.5	-	2.6	8.1	10.8	4.1	4.5	2.0	32.5
	1995	7.7	1.3	0.3	2.9	9.4	0.6	4.9	5.8	10.9	24.7	15.8	77.7
Senegal	1970	64.8	4.1	1.9	9.3	-	2.6	2.3	6.7	1.4	1.1	1.6	18.8
	1990	53.2	2.7	-	9.3	-	12.3	14.9	2.5	0.6	0.9	0.9	22.5

Source : CNUCED (1995) : *International Trade and Development Statistics Manual*, United Nations, 1997, New York, table 4.1, p. 112-133.

TABLE 2
BALANCE OF TRADE OF IC WITH LDC, ALL GOODS (millions of US dollars)
(millions of u.s. dollars)

1980	-85114
1990	-3723
1992	43013
1993	50001
1994	37295
1995	22015

table 2

Source: CNUCED (1995) *International Trade and Development Statistics Manual*, United Nations, 1997, New York, Appendix A, p A-2. 112-133.

the continued growth of international trade in services, global commerce remains dominated by the exchange of commodities. Indeed, global exports of services (aside from investment income), which were 16.3% of the total in 1985, had only increase to 20.0% by 1998 (WTO, 1998).

Moreover, if developed countries are becoming increasingly specialized in the export of goods and services intensive in skilled labor, this should not be construed as signifying a massive relocation of plants and factories into LDCs. We see that the industrialized countries show a positive balance sheet in their trade with the developing world (cf. Table 2). Naturally, there are differences between the patterns for various developed countries. For example, from a 1995 database, the United States and Canada show trade deficits with the LDCs, while the European Union, and even more Japan, show large surpluses (cf. Table 3). However, the deficit position of the United States and Canada is just as pronounced in their trade with other industrialized countries.

As to the European Union, efforts to liberalize trade within a regional framework, in the works since 1957 (Treaty of Rome), have largely contributed to accelerating trade between branches within the community, notably in chemicals, electronic equipment, automobiles, biotechnology, and aeronautics [Commission des Communautés européennes (1990, p. 43)].

As to the U.S. and Canada, their economies had become highly integrated well before implementation of the FTA and NAFTA. Throughout the history of its industrial development, Canada benefited from direct foreign investment, first British and then American. Among the members of the G-7, Japan's level of intra-industry trade for the entirety of the manufacturing sector is the lowest [OECD (1994)].

Japan's high-performance sectors for exports are highly concentrated in electronics and motor vehicles, and it country imports large amounts of primary materials, including foodstuffs and energy. It is of some interest to expand our current discussion to account for the role of the product cycle in the need for industrial restructuring. The economic literature is very clear on this matter. Firms reassign production units in light of their output's factor composition, which progresses from skilled labor when it is originally brought to market to physical capital by the stage of product maturity.

In short, these observations challenge the myth of deindustrialization which developed countries are supposed to be suffering.

TABLE 3
TRADE BALANCE OF SELECTED COUNTRIES OR COUNTRY-GROUPS, 1995,

Destination Origin	Canada	United States	EU	Japan	LDC	Africa	Americas	Other Asian Countries
IC	-29556	121590	-53294	-101426	22015	6,151	43237	-34621
Canada	--	30776	-3388	377	-2596	523	708	-4279
United States	--	--	-23497	-68761	-86565	-4468	4886	-90594
EU	--	--	--	-34195	37092	38905	18964	-9141
Japan	--	--	--	--	62848	4423	11707	55472
LDCt	--	--	--	--	--	12392	14811	-31121
Africa	--	--	--	--	--	--	-37225	-9746
Americas	--	--	--	--	--	--	--	-10589

Source : CNUCED (1995), *International Trade and Development Statistics Manual*, United Nations, 1997, New York, Appendix A.

The "Other Asian Countries" sub-set designates developing countries outside of the Middle East, and includes Central Asia.

And what of the truncated-economy argument, which claims that multinational firms limit the activities of their branches by relegating them to bit-player status? Clearly, virtually all LDCs bemoan the current international division of labor. Their industrial structures, developed under colonialism, earn foreign exchange but less often supply domestic consumers. For example, the cultivation of tea in India, coffee in Côte d'Ivoire and Brazil, and bananas and sugarcane in the Caribbean, all essentially supply the American and European markets.

However, we must also point out that, while these complaints are noteworthy, they are countered by important benefits, including economic integration and the concomitant access to international goods and capital markets, the introduction of a market economy paralleling the subsistence economy with ensuing price adjustment consequences and, of course, the benefits accruing to those segments of the population specialized in the market good. The real challenge to LDCs is to avoid self-pity over this structural dependence and to find ways out of the impasse. This is the attitude taken by the NICs, whose success is the envy of the industrialized world.

In summary, we can agree that, while globalization allows the supply of goods and services to become cheaper and facilitates adoption of new technologies, the industrial structures of both industrialized and developing countries are profoundly affected by it. Forecasts of the direction of trade become scrambled, especially since in this environment even patents offer limited protection. This, then, is the hodgepodge into which trade and industrial policy must be inserted.

When asking how to develop competitive advantage, we note the emphasis placed by UNIDO on government participation (1996, p. 4):

Greater coordination is required between the private sector and governments in order to enable firms to reap the benefits of their core competencies and to support government efforts to create a competitive environment and to promote sustainable industrial development.

UNIDAD clearly believes that it is governments' ability to back certain high-performance sectors that constitutes the key to «strategic» trade policy. This governmental planning and management role is increasingly focussed on the development of human resources and mastering and adopting new technologies while maintaining the infrastructure.

TABLE 4

REGRESSION ESTIMATES
OVERALL SAMPLE OF 70 COUNTRIES

	Growth of Per-capita GDP	Per-Capita GDP	Inflation	Unemployment rate	GINI
Constante	73,11* (12,19)	64,11* (8,76)	76,22* (12,52)	107,28* (7,24)	81,21* (4,40)
Coefficient	0,042 (0,10)	0,0009 (1,89)	-0,202 (-1,47)	-3,42** (-2,26)	-0,33 (-0,72)
R ²	0,0001	0,05	0,03	0,10	0,009
F	0,009	3,57	2,16	5,12	0,52
N-obs ¹	68	69	69	47	57

* significance at 1 % level.

** significance at 5 % level.

¹ See list of countries and data

TABLE 5

REGRESSION ESTIMATES
SAMPLE OF 46 DEVELOPING COUNTRIES

	Growth of Per-capita GDP	Per-capita GDP	Inflation	Unemployment rate	GINI
Constante	63,38* (7,47)	55,25* (8,21)	79,82* (9,03)	136,39* (5,59)	80,45* (2,46)
Coefficient	9,86 (3,01)	0,006* (6,36)	-0,22 (-1,32)	-5,35* (-2,34)	-0,28 (-0,39)
R ²	0,17	0,48	0,03	0,20	0,004
F	9,06	40,46	1,74	5,48	0,15
N-obs ¹	45	45	45	23	33

* significance at 1 % level.

¹ See list of countries and data

Numbers in parentheses are t-statistics.

Other Macroeconomic Goals

This chapter draws equally on economic literature and recent statistical evidence. From the World Bank's *World Development Indicators*, we have compiled data on the degree of openness, the level and growth of GDP per capita, the mean rate of inflation, the unemployment rate, and the Gini coefficient for 70 countries, of which 24 are members of the OECD³. Among the remaining 46 developing nations we have taken pains to include some having a high degree of openness (Singapore, Hong Kong, Malaysia, etc.), some which are relatively closed (Brazil, India, Nigeria, Argentina), and also some with low levels of economic growth, in particular with negative growth, such as Nicaragua, Haiti, Côte d'Ivoire, Senegal, Kuwait, Niger and Jamaica (cf. the Appendix). Following is a brief presentation of the analysis.

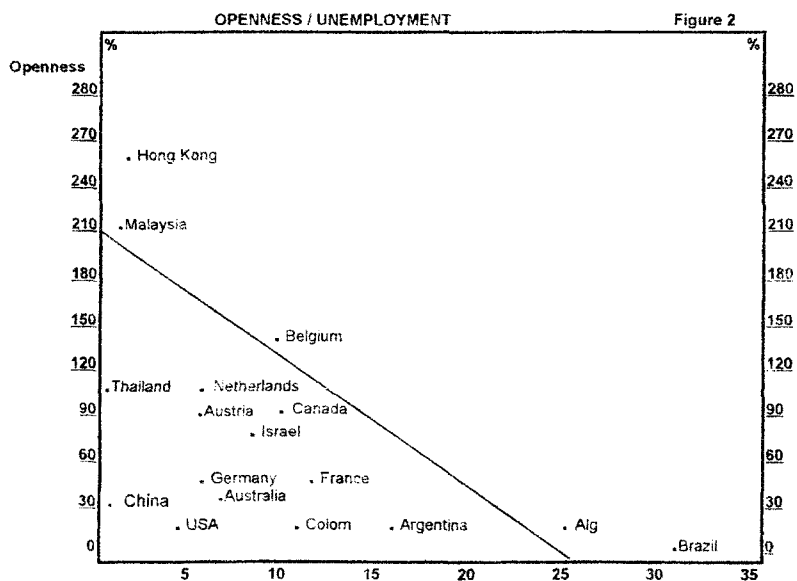
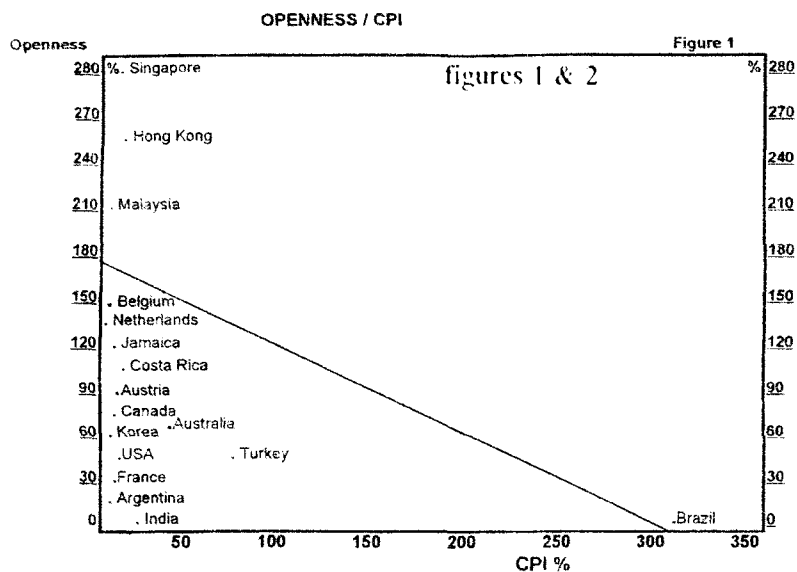
2.1. *Equilibrium: Relationships at Several Levels*

The notion of equilibrium relates to the absence of inflation and low levels of unemployment. A cross-section glance at figures 1 and 2 reveals variations between the countries. For example, within the OECD, the most inflationary economies (Turkey, Greece and Mexico) show a relatively low degree of openness. Among developing nations, Jamaica, Nicaragua, Costa Rica, the Philippines and Indonesia, which are quite open, are also characterized by high inflation. We note in general that inflation is high in the countries of Latin America, regardless of their degree of openness. This is particularly true of Argentina and Brazil.

As to unemployment, we again see differences between members of the OECD. Countries of southern Europe (Spain, Greece, Italy, France, etc.) have higher levels of unemployment than their northern European counterparts, Japan, and the United States. While inflation can be imported, its persistence is indicative of fundamentally flawed, i.e. expansionist monetary and fiscal policy. We now know that, in general, inflation can be attributed to excess demand (demand-pull inflation), to rising factor costs (cost-push inflation)—including the wage price spiral, as explained by the Villain theory—to the tax-price spiral, or simply to a psychological effect.

The sources of unemployment also vary, ranging from the classical

³ The degree of openness is measured as the ratio of the sum of exports and imports to GDP.

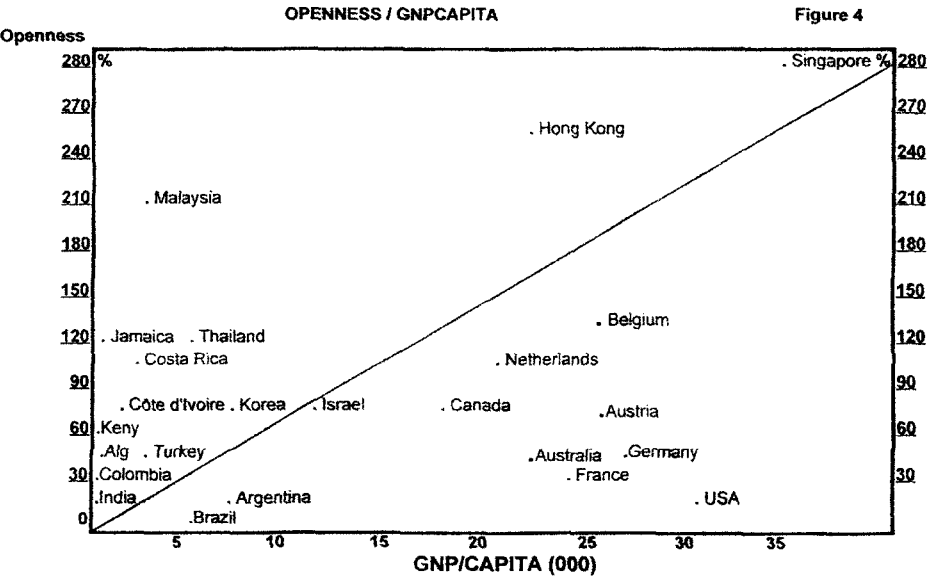
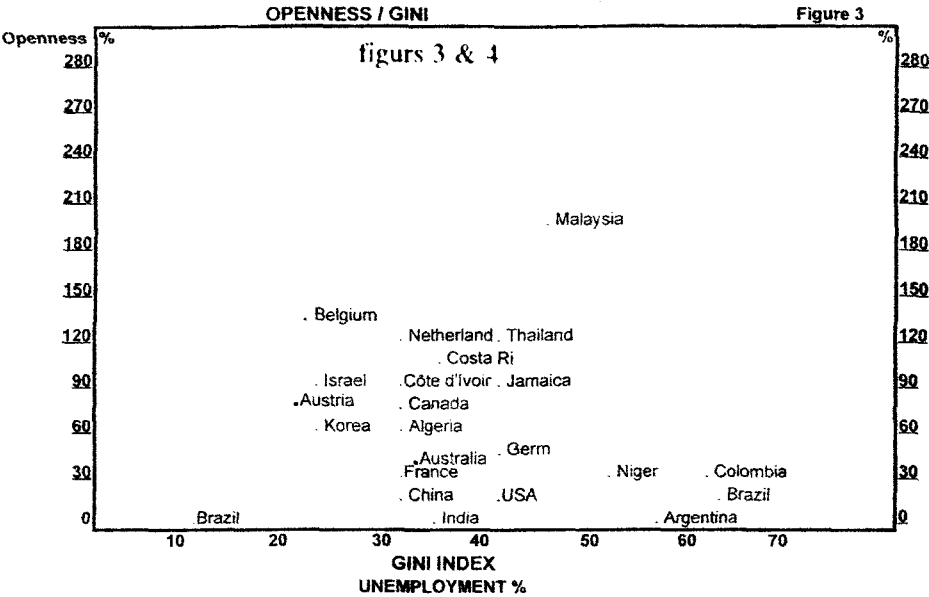


and neoclassical explanations to the Keynesian model, including disequilibrium, rational-expectations, and post-Keynesian views, to name but a few. But empirical observations should not be neglected. Here are a few: i) the organization and institutional structure of a society within its demographic framework are key influences; ii) lifestyles and social behavior, the influence of the family, and the process of professional integration of youths are overlooked by statistical agencies; iii) determinants of employment depend on firms' expectations of the markets, both domestic and foreign, and on the profit-wage relationship; iv) the unemployment rate is not necessarily higher in countries showing greater openness—indeed, the opposite is seen in many trading nations (cf. Figure 2).

In conclusion, the sources of inflation and unemployment must be sought elsewhere than in the simple fact of globalization. Clearly, it is feasible to imagine an autarchy producing goods and services with full employment of resources. However, these fantasies will soon be shattered by the realization that the needs of the agents in this economy cannot be satisfied, for the simple reason that there will be disequilibrium on the goods market (shortages of some goods, surpluses of others). Eventually, that country will seek to dispose of its surpluses on the foreign market and, of course, to import those in shortage. History reveals that economic autarchy is not workable in the long term. At the limit, it can only be a transition between two systems: a bracket. For example, after having been closed for a long time, the Japanese domestic market progressively opened during the 1960s and 1970s. This is now also occurring in China, which is intensifying its efforts to join the WTO.

2.2. "Economic Equity": Still an Issue

The quest for equity, including "economic equity," never fails to evoke passions. To opponents of globalization, the problem of equity is very seductive. We learn from them that the "perverse" effects of globalization are found in the polarization of agents between "winners" and "losers." More specifically, that it is in the very nature of economic integration to increase income inequality between the industrialized countries (regarded as the winners) and the LDCs and NICs seen as (the losers). UNIDO (1996, pp. 5–6) estimates that income inequality between rich and poor countries has increased, judging by the Gini



coefficient⁴, from a value of 0.44 in 1960, through 0.50 in 1970 and 0.53 in 1980, to 0.55 in 1989. Also, according to UNIDO, the ratio of the per-capita income of the 20 wealthiest nations to that of the 20 poorest nations has increased, from 11.1 in 1960 to 17.1 in 1989. In brief, available statistics confirm the asymmetry of trade relations between North and South.

But can this increasing income inequality be laid at the feet of globalization? Studies of this issue remain controversial. First, let us refer to two famous corollaries of the HO model: the Stolper-Samuelson and the price-equalization theorems. If we accept these two propositions, along with the HO model, then a greater liberalization of markets will have the effect of increasing workers' incomes in countries of the South (exporters of labor-intensive goods) and diminishing incomes in labor-intensive industries in the North. The available data clearly indicates a persistent gap between real wages in the North and the South, irrespective of industry⁵. The reason for this differential can be found in the fact that international trade does not necessarily follow the rules of comparative advantage, as previously elucidated, especially given that some countries enforce protectionist measures.

The example of the textile and clothing industries eloquently illustrates these claims. The United States, Canada and the countries of Western Europe sought to contain exports of textiles and clothing from the South by negotiating the Short-term Cotton Arrangement (STA) in 1961. One year later this became the Long-term Cotton Arrangement (LTA), giving rise to the Multifibre Arrangement in 1974. This treaty was renewed several times until 1994. Moreover, the relocation of this industry from the industrialized to the developing world is constrained by two mutually reinforcing factors. Despite difficulties automating every aspect of production, the textile industry has nonetheless benefited from considerable technological innovation (the use of synthetic fibres, open-ended spinning, shuttleless weaving, electronic monitoring of production), relegating the comparative ad-

⁴ The Gini coefficient measures income inequality. Its value can range from 0 (perfect equality) to 1 (perfect inequality). This index measures the area of the surface below a 45-degree line (which also represents perfect equality) and above the Lorenz curve.

⁵ While the annual unit cost of labor in the manufacturing sector over the period 1995–1999 ranged from \$25,000 to \$40,000 in the countries of the G-7, it is below \$2,000 for many developing countries, even below \$100 in certain African nations [World Bank (2000, pp. 58–61)].

vantage of low wages to a secondary consideration.

The second reason pertains to the implementation of regional agreements, particularly the European Union and NAFTA, whose rules of origin favor regionally produced goods over those from outside⁶. Thus, a partial reversal of factor intensities combined with, and underpinned by, the regional blocks, tends to enhance the importance of the proximity of producers, suppliers and clients, creating a flexible production system and limiting relocations. Moreover, throughout the period from 1960–1980, many developing countries practiced a policy of import substitution. In short, several factors combine to undermine the predictive power of the Stolper-Samuelson and factor-price equalization theorems, including difficulties accessing technology, trade barriers, and rigidity in the industrial structure.

According to Krugman and Venables (1995), when transportation costs drop below some threshold there will initially be a concentration of manufacturing industries within a region, and if that drop continues past some second critical value, income inequalities will increase between North and South. However, in building their explanatory model of the structure of trade between industrialized and developing countries based exclusively on variations in the cost of transportation, the authors warn us: “We are aware that any explanation of such large-scale and long-term economic trends in terms of a single cause must be offered with tongue firmly in cheek... It is highly probable that other factors, such as changing technology of production, have played a more important role than falling transportation costs in driving changes in regional advantage.”

Though it is difficult to make unequivocal pronouncements about the impact of opening on the distribution of income, we may nonetheless examine the index of per-capita GDP by country. First, it is of some interest to report that, according to World Bank data (1999, p. 70), among countries whose Gini index exceeds 50%, we find: Sierra Leone (62.9), Central African Republic (61.3), Brazil (60.0), Guinea-Bissau (56.2), Guatemala (56.6), Lesotho (56.0), Mali (50.5) Mexico (53.7) and Paraguay (19.1), all developing countries. Consequently, income inequality within developing countries is quite pronounced.

⁶ For example, NAFTA stipulates the triple transformation rule, requiring that thread, fibre, fabric and clothing all originate in North America.

The data in the Appendix confirm the per-capita income disparities between North and South. We notice, however, that the patterns vary between regions. Among the members of the OECD, per-capita incomes are quite low in Turkey, Portugal, Spain, Greece and New Zealand—countries whose degree of openness is relatively limited compared to the United States and Japan. The most open countries in the OECD (Ireland, Belgium, Netherlands, Switzerland and Austria) enjoy high per-capita incomes.

Before drawing any conclusions, let us look more carefully at the relationship between openness and economic growth.

2.3. *Economic Growth: Can it be Restarted?*

There is an abundance of literature on the relationship between openness and economic growth, including Romer (1986), Lucas (1988), Grossman and Helpman (1991), Edwards (1992; 1998), Krugman (1994), Barro and Sala-i-Martin (1995, 1997), and Harberger (1996). In general, this literature reveals a positive correlation between openness (measured as the ratio of the sum of exports and imports to GDP) and growth. Clearly, this result – derived from simple cross-country regressions – does not account for the mechanism by which a greater openness influences growth and sheds no light on the causality.

Nonetheless, the explanations provided by Romer (1986), Lucas (1988) and Barro and Sala-i-Martin (1995) prove quite revealing in emphasizing that the positive correlation between the two variables demonstrates the ability of open economies to master new technologies much more rapidly than the rest of the world. Other authors have defended more finely nuanced positions. Krugman (1994) and Rodrik (1995) consider that the effect of openness on growth “is at best, very tenuous, and at worst, doubtful.” We should emphasize that neither Krugman nor Rodrik reject out of hand the hypothesis of a positive correlation between openness and growth. Moreover, this controversy has inspired studies that specifically examine the impact of trade policy choices on growth, such as Kenen and Voivodas (1972), Glezakos (1973), Brock (1991), Dollar (1992), Sachs and Warner (1995), Edwards (1998) and Rodríguez and Rodrik (1999). These studies have not yielded a consensus, however, owing in large part to variations in the method used to estimate the index of policy choice. Notwithstanding the issue of causality, the following, simple question is worth asking: Do more open countries show higher economic growth rates?

A cross-section view reproduced in the Figures 4 and 5 reveals

that no systemic relationship exists between economic integration and low growth rates. In reality, economic growth springs from primary characteristics of the “productivity-quality-price” equation—well known in the world of amateur sports—whence the importance of implementing policies focussed on firms' competitiveness. It is, however, quite interesting that the newly-industrialized countries of Asia simultaneously show high rates of economic growth and a high degree of integration.

2.4. Statistical Analysis

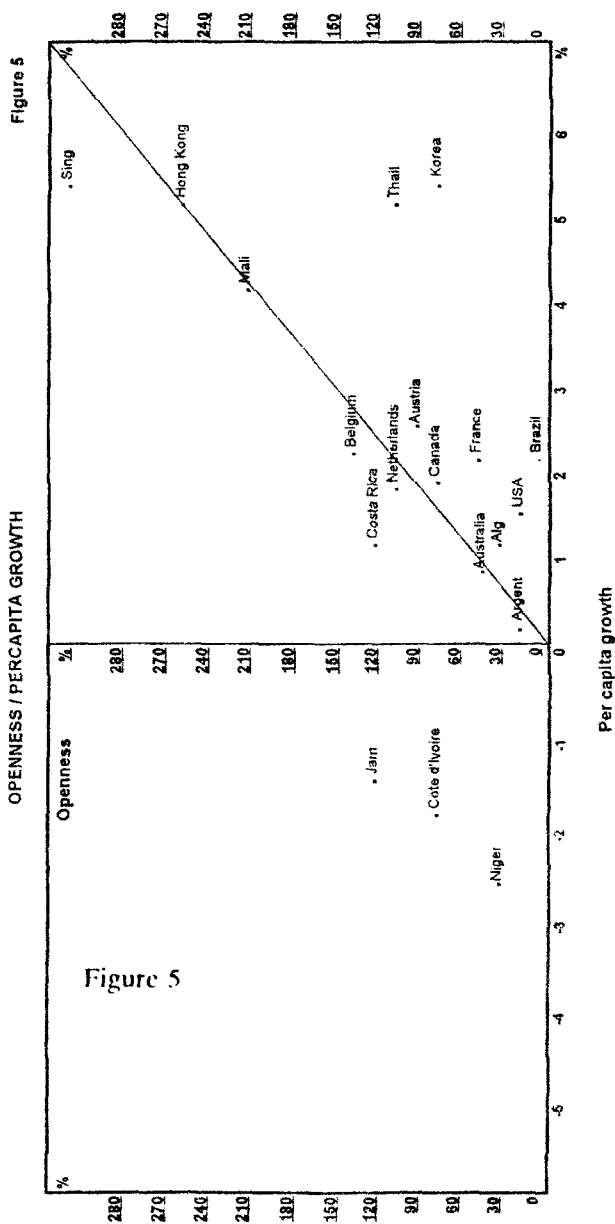
In order to verify the aforementioned assertions on the impact of globalization, we conducted a quantitative test consisting of a simple regression of a variable for the degree of integration or openness on variables for the unemployment rate, inflation, the level and rate of growth of per-capita GDP, and the Gini index. Two groups of estimates were computed: one on a sample of 70 countries, including OECD members and developing nations; and one on a sub-sample containing only the 46 developing countries. Tables 4 and 5 present the results of these estimations.

It is of some interest to note that a positive and significant relationship exists between the degree of openness and the goal of equilibrium. The negative correlation between the variables indicates lower levels of both unemployment and inflation in the more open countries. As to economic growth, the results diverge between geographical regions. The results on the full sample of 70 countries (OECD and LDC) reveal no statistically significant relationship between the level of integration and economic growth. Conversely, the coefficient of the economic-growth variable estimated on the LDC sub-sample is positive and very significant.

We should note that the coefficient of per-capita GDP is also positive and statistically significant both for the full sample and for the LDC sub-sample. Finally, the results from our quantitative analysis indicate that there is no statistically significant relationship between the degree of openness and the Gini coefficient.

3. Conclusion

The goal of this paper has been to shed some light on the effects of globalization on popular economic goals. Our results, based on a sample of 70 countries, reveal that a positive and weakly-significant statistical relationship exists between the degree of integration and the



goal of equilibrium (inflation/unemployment). Also, a greater openness to international trade is positively correlated with the goal of economic growth in LDCs. As to efficiency, at the very least, globalization implies a spatial reconfiguration of industrial activity.

The problem of "economic equity" remains in the public eye as much a matter between North and South as within each country. It is thus essential to avoid superficial generalizations that may confuse causes and effects. The challenge presented by globalization is its ability to disrupt a nation's industrial landscape. The need for development, and the concomitant requirement for greater openness, mean that trade-policy liberalization must be accompanied by measures to smooth the transition and reinforce the social fabric.

Let us point out, in conclusion, that this discussion of economic goals does not imply that other concerns, such as environmental and health standards, working conditions, national coherence and the power shift from national and elected governments to international corporations are not valid goals. The trend toward globalization does not have only economic consequences, and globalization, while producing certain identifiable economic benefits, may carry with it a variety of costs, some of which may be of overriding importance to humanity. It is a subject that needs to be studied from many angles, not solely in respect of economic goals.

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Islam in the North Caucasus

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Religious diversity has had a dramatic impact on the development of the North Caucasus region. People do not identify primarily with either a national or international Islamic community, although the fundamentalist Vakhabite community has become a major regional force during the past decade. Numerous official attempts to suppress Vakhabite influence has resulted in the emergence of a clandestine Vakhabite network supported by Islamic radicals from abroad, mostly of Saudi and North African Arab origin. These have joined with the Khattab group to receive military training in terrorist camps in support of the Chechen resistance to Soviet forces.

Following the first Chechen war (1994-1996), differences arose between the Sufi and Vakhabite movements, with Sufi Muslims called for creation of a secular state that would preserve traditional social patterns, while Vakhabites demanded the eradication of local customs which they regard as having tainted Islamic purity.

Key Words: Russia, North Caucasus, Chechnya, Chechen War, Ingushetia, Daghestan, Islam, Muslims, Sufi, Sunni, Vakhabites,

While ethnic animosities have a long history in the North Caucasus, the religious flavor of these conflicts appeared more recently. With time, Islam became a uniting force that helped many people of the North Caucasus assert their struggle against oppression by those whom they viewed as "men without faith." However, while Islam served as a rallying point for disparate groups within the region, Islam itself did not assume a unified organizational model. Local customs and paganism had a profound impact on Islam as it developed throughout the North Caucasus. Almost no expression of faith could be characterized as "pure Islam."

When the religious element emerged as a significant one in this part of the former Soviet Union, it varied greatly whether one encountered it in Daghestan, Inghusetia, Chechnya, North Ossetia,