Old and new dualisms in Latin America and Asia: labour productivity, international competitiveness and income distribution

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Text in bracket and signalled by TN‡ corresponds to Translation Notes that are not in the original text

The paper analyses from a statistical and comparative perspective the structural determinants of labour productivity (and income) and the dynamics of (non-monetary) trade competitiveness. The research focuses on developing countries, and more particularly on a comparison between two emblematic regions: Latin America, which was the best performer during the first phase of globalisation (XIX century up to the crisis of 1929) and Asia, which came to stand out since the 1960s, first with Japan, then with the Newly Industrialized Economies (NIE), and now with the emergence of giants like China and India.

After an introduction presenting the respective regional trends in labour productivity, the paper analyses these trends following a growth accounting protocol, applied to a selection of Asian and Latin American countries. The empirical model refers itself to a structuralist theoretical *référent*. The results obtained offer a disaggregated estimate of the respective structural sources of the changes in total labour productivity observed in both regions. The paper documents the divergences in structural transition paths, Asia showing complementarities in the development of its productive sectors, while in Latin America the transition towards a fully industrialised economy has been truncated, and a new dualism emerged. Because non-monetary (or "real") competitiveness is closely related with labour productivity, the comparative dynamic analysis provides interesting indicators on the evolution of comparative advantages. It provides also a new approach on the origins of the Latin American phenomenon of growing informality, a preoccupying source of income inequalities.

In the third section, macroeconomic aspects are introduced in order to provide an explanation for the divergence in structural paths observed when comparing Asia with Latin America. The paper argues that the phenomenon of truncated industrialisation and substitutive informal services in Latin America may have some of its proximate roots in monetary and balance of payments considerations. After revising some policy options that could be derived from the analysis, a conclusion sums-up the main results.

1. Trade, productivity and income

Trade liberalisation was meant to be a win-win strategy, where all participants were expected to gain from the increased economic exchanges. Indeed, there is little doubt that free trade is welfare enhancing in absolute term at global level. Thanks in particular to the high export-led growth experienced by those developing countries that were willing and able to seize their global opportunities, the world has recorded a considerable decrease in the number of people living in poverty. In Eastern Asia, the percentage of population below $1 purchasing power parity dropped from 33.0% in 1990 to 9.9% in 2004, weighting heavily in the total decline from 31.6% to 19.2%, respectively, observed for the total of developing countries (United Nations, 2007). The related figures for Latin America and the Caribbean are 10.3% for 1990, and 8.7% in 2004.

[1] The views expressed in this document, which has not been submitted to formal editing, are those of the author and do not represent a position, official or unofficial, of the WTO Secretariat or WTO Members.

Yet, distributional considerations request to somewhat moderate this positive conclusion. In actual facts, the variance of the distribution of benefits between and within countries has been so large that income inequality has increased. As it became clear that there was a "winner group" among developing and transition economies, in terms of both income growth and market shares (v.g. the emerging Asian countries; Eastern and Central Europe). It became also tempting to define the not-so successful as "losers", even if only in relative term compared to the more successful; and it was easy to blame increased trade openness for this outcome.

Table 1 shows that growth patterns in labour productivity –a proxy for per capita income– differed considerably across regions, stagnating in the Middle East and growing more than 3% per year in Asia. The higher growth is shared by most developing Asia, as evidenced by the low and decreasing coefficient of variation (even lower now, than the homogeneous group of Western European economies). This group of countries is not only closing the productivity gap with the most advanced countries, but also show evidences of within-group income convergence.

Table 1. Regional Productivity Growth 1990-2005

	Western Europe	Europe, others	Developed North America and Pacific	Asia: NIEs	Asia: emerging and developing	Latin America and Caribbean	Middle East	Africa
Average Annual Growth	1.62	1.79	1.57	3.13	3.06	1.08	0.09	0.62
Coefficient of Variation:								
-1990-1992	0.16	0.43	0.19	1.21	0.24	0.53	0.46	0.90
-2003-2005	0.15	0.49	0.22	1.16	0.12	0.58	0.40	0.92

Notes: All values in percent, based on GDP per Person Employed, in 1990 dollars. Regional growth rates are simple average of the respective country figures; coefficients of variation refer to within regional group variance.
Sources: Author's calculation based on data from the Groningen Growth and Development Centre and the Conference Board, Total Economy Database, http://www.ggdc.net

Yet, even within the "winner group" of Emerging Asia and Central European Countries, income distribution has been worsening, as shown by the evolution of Gini coefficients (table 2).

This twin process of increasing "between and within" income group variance and its potentials implications for the future of the current wave of internationalization, have created a strong current of investigation. The relationship between international trade, economic growth and income distribution is a complex issue, which goes much beyond the focus of the present article. Winters et al. (2007) provides an extensive coverage of the related analytical literature.

Table 2 Evolution of Gini coefficients, 1970-2000

Years	***WORLD***	***OECD***	***LAC***	***EAP***	***SAS***	***AFR***	***ECE***
1970	*0.6677*	*0.3516*	*0.5609*	*0.4437*	*0.3799*	*0.6487*	*0.2984*
1980	*0.6814*	*0.3387*	*0.5556*	*0.4885*	*0.3837*	*0.6305*	*0.3009*
1990	*0.6855*	*0.3532*	*0.5521*	*0.4854*	*0.3813*	*0.6506*	*0.3065*
2000	*0.6842*	*0.3684*	*0.5712*	*0.5204*	*0.3338*	*0.6676*	*0.4280*

Notes: LAC: Latin America and the Caribbean; EAP: East Asia; SAS: South Asia; AFR: Africa; ECE East and Central Europe.
Sources: Dikhanov (2005)

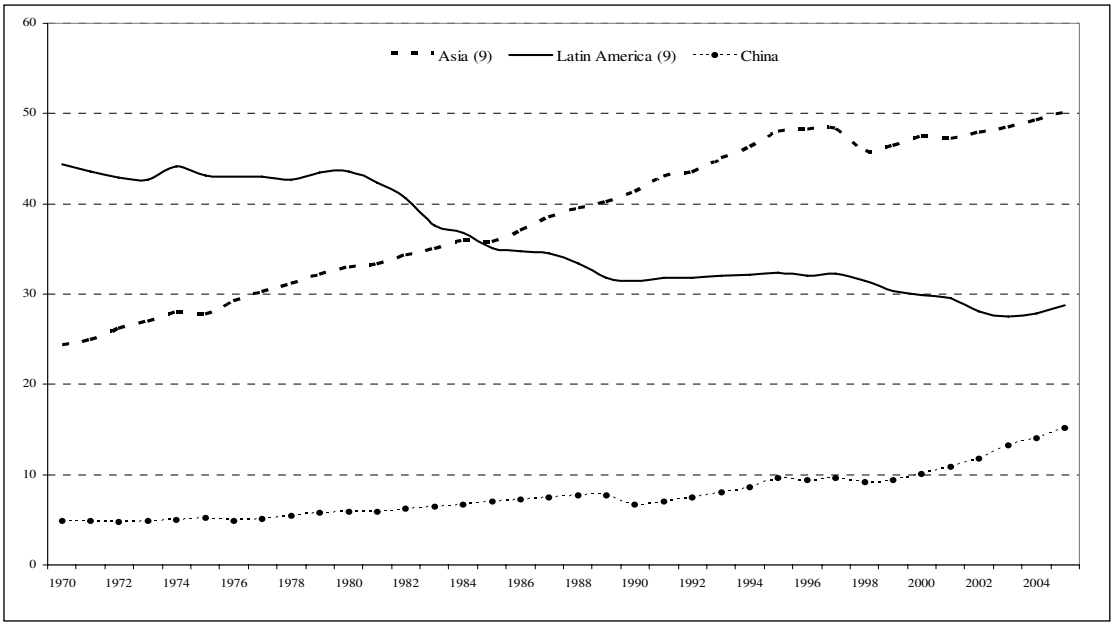
From an international trade perspective, because non-monetary international competitiveness is closely related to comparative labour productivity, understanding the dynamics of productivity puts an interesting light on the evolution of comparative advantages in international trade. In this comparative framework, real competitiveness relates to labour productivity compared to a benchmark (usually given by the USA or other mature industrialized economy). But understanding the reasons of the apparently increasing gaps between the so-called "winners" and "losers" of globalisation is not an easy task.

Globalisation unleashed a completely new set of business practices, and coincided with the Information Technology (IT) revolution. These two phenomena are intricately mixed; this makes the relationship between the dynamics of globalisation, comparative advantages, international trade and external imbalances a very complex issue which encompasses many technical, managerial and institutional issues. This fast evolving branch of economics is producing a series of new "new" trade theories to capture the complexity of the micro-macro relationships created by globalisation.

As trade in semi-finished products and intra-firm transactions tends to dominate trade in some leading manufacture sectors such as electronics or automobiles, "trade in tasks" theory is increasingly eating into the more traditional analysis of comparative advantages. The argument of the new-paradigm trade theory is that international competition takes place also at the level of individual tasks performed by internationally integrated firms. International competition is not only between firms producing substitutable goods, but also between workers performing similar tasks. Since some tasks can be off-shored more easily than others, the identification of winners and losers at workers level becomes more difficult.

The existence and evolution of a trade-induced income gap is itself an empirical debate (Winters et al, 2007). Reviewing a large amount of evidence from several developing countries regarding their exposure to globalization and the parallel evolution of inequality, Goldberg and Pavcnik (2006) find for example that the effect of globalization on inequality depends on many factors, several of which are country- and time-specific.

Figure 1. Average Labour Productivity Gap with the USA: Asia and Latin America, 1970-2005.



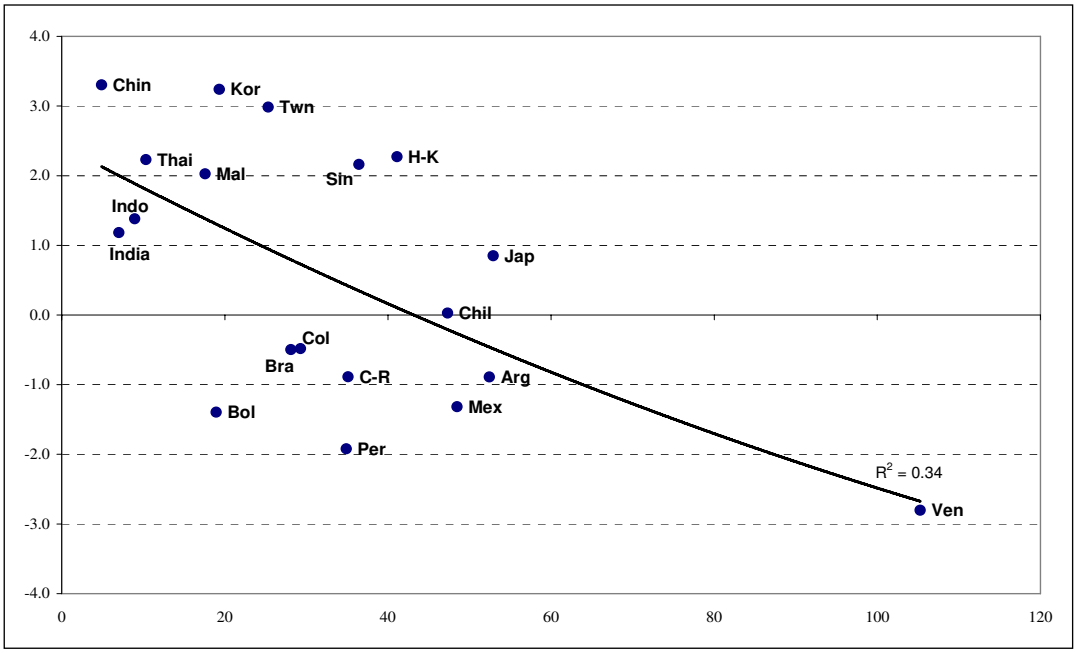
Notes: USA=100. See text for the composition of the Asian and Latin American samples.
Sources: Author's calculation based on data from the Groningen Growth and Development Centre and the Conference Board, Total Economy Database, January 2007, http://www.ggdc.net

Globalisation and IT may have shaken the old beliefs, rooted in the Solow model, that rich countries will be exporting capital to the developing world, allowing labour productivity to grow faster in these economies and close the income gap. Mirroring this prediction, the emerging Asian countries are registering a steady growth in their labour productivity, and receive an increasing share of foreign investment. Yet, after a period of slow growth, where its leadership over European economies was eroded, the US is also registering a boom in its labour productivity (the so-called "*New Economy*" factor). In the same time, the US economy is showing a wide and persistent current account deficit, attracting the savings of the rest of the world.

Despite the renewed dynamism of US productivity, the Asian economies are closing the labour-productivity gap (figure 1). But closing the gap with the leading economies is not a monotonous process, from an historical perspective, as evidenced by the diverging trend experienced by Latin America. Because the productivity frontier is a moving target, each country's relative position may improve or deteriorate. Trade openness may probably play a strong positive role, as exemplified by the accelerating trend observed in China after joining the WTO. But opening the economies it is not a sufficient factor, and if Latin America could stop for a while the decreasing trend after the structural reforms of the 1990s, it could not reverse it.

As figure 2 suggests, this is perhaps simply the reflect of convergence. At the end of the 1960s, Asian countries were poorer or least advanced in terms of value added per worker than Latin America, and may have registered a faster growth of productivity in a typical process of catching-up. But this is just a possibility and even if convergence is at work, it explains only part (34%) of the variance observed in the graph. Indeed, this convergence effects vanishes when the same simple regression is applied to a wider sample of developed and developing countries. Evidently, the dynamic of the productivity gap is the resultant of a process which is much more complex than the "simple" or "conditional" convergence that was predicted by Solow's model.

Figure 2. Increase in Average Labour Productivity vs. Initial gap with the US in 1970



Notes: Horizontal axis: value added per worker index, 100=USA, at constant 1970 dollars; vertical axis: average annual growth rate of labour productivity, 1970-2005
Sources: Author's calculation based on data from the Groningen Growth and Development Centre and the Conference Board, Total Economy Database.

The rest of the paper will focus on analysing this dynamic from a structural perspective, looking for empirical elements that could provide some light on the reasons for the diverging patterns observed in Asia and in Latin America.

2. Sectoral Growth Accounting, Structural Changes and Productivity.

The role of sectoral performance in economic growth has been a topic of major importance in growth studies, starting with "founding fathers" of the profession such as A. Smith or D. Ricardo. When it comes to modern development economics, the obvious conceptual reference is the model devised by Lewis (1954). [2]

Arthur Lewis model of a closed economy with unlimited supplies of labour analyses the mutation of an homogeneous traditional society, where subsistence activities predominate, into a modern "industrialised" economy. Labour is abundant, and its productivity is much higher in the modern sector. As long as the two sectors coexists, the dynamic of productivity cannot be captured by an aggregate production model "à la Solow" (Ros, 2000). During the labour surplus phase, the capital intensity of the whole economy rises, and with it the per capita income. But at the difference of the Solow model, this rise is predominantly due to the reallocation effect of labour from the subsistence economy to the capital intensive sector, and can occur even if there is no gain in "productivity proper".

The conceptual framework used here is also closely related with the analytical works on labour policies in dualistic markets that derived from the well known Harris-Todaro (1970) model (see Fields 2005 for a revision of recent developments). It should be noted that this class of models is concerned principally by labour market conditions and welfare distribution. This emphasis may lead to policy recommendations that differ with those derived from structuralist growth-oriented models "à la Lewis". [3]

a. The conceptual and statistical frameworks

This section describes briefly the methodology used to isolate the contribution of sectoral effects to aggregate labour productivity. The presentation will follow as far as possible the growth accounting notation used by Van Ark and Timmer (2003), to facilitate cross-references with the Groningen Growth and Development Centre, which provides a world wide data base and research papers on productivity.

Because of the lack of systematic and detailed information on sectoral capital stock in developing economies, the analysis will focus on labour productivity. It should be noted, nevertheless, that leaving out the investment side does not incur in a large loss of relevant information for our present purpose. Indeed, previous studies indicate that the effect of capital reallocation is very reduced (Poirson, 2000). This tends to confirm the intuitive perception that capital markets (with the notable exception of agricultural land, but it is not an flexible asset) are less segmented than labour markets in developing countries.

The intuition behind the method is simple: when sectors of very different labour productivity coexist in a single economy, total factor productivity shall improve when labour migrates to the higher productive sectors, even in the absence of additional technical progress. This structuralist approach differs from the neo-classic "Solow" models that assume that sectors are not differentiated and can be represented by a single production function.

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[2] See Syrquin (1988) for an overview of the role of structural changes in development economics, and Ranis (2003) for an update on the theoretical debate.

[3] In particular, rural development is the first-best policy in the context of the Harris-Todaro models, because an emphasis on modern-sector urban employment may create more income inequality and underemployment. Some income restraints in the urban sector are also considered as a welfare enhancing option. The "structuralist" school of development, at the contrary, privileged higher growth rates based on fast (and subsidised) industrialization.

Starting from a Lewis model with two sectors, one "traditional" and one "modern" economy, and using standard growth accounting relations, the aggregate labour productivity can be decomposed as follows:

$$Y = Y_1 + Y_2 \quad [1]$$

where

Y = total GDP

Y_i = Value added in sector i=1,2

L being the total labour force employed in the economy, we can write, using the same convention:

$$L = L_1 + L_2 \quad [2]$$

A any point of time t=T :

$$P^T = Y^T/L^T = [Y_1^T/L_1^T \,.\, L_1^T/L^T] + [Y_2^T/L_2^T \,.\, L_2^T/L^T] \quad [3]$$

which can be simplified as :

$$P^T = P_1^T S_1^T + P_2^T S_2^T \quad [4]$$

with:

P_i^T : Value added per employed worker in sector i=1,2 at t=T

S_i^T : Share of labour force employed in sector i (i=1,2) at t=T.

At the initial stage described by Lewis (1954), most labour force is (under)employed in the traditional sector, leading to very low per capita income in this sector, at, or close to, subsistence level. Added value per worker in the modern sector is much higher than the subsistence income.

$$S_1^T >> S_2^T \quad [5]$$

and

$$P_2^T >> P_1^T \quad [6]$$

When a developing economy transits to higher level of industrialization and income, labour moves from sector 1 to sector 2. The large structural differences in labour productivity indicated in [6] implies that the aggregate labour productivity may raise thanks to sectoral reallocation effects, even if there is no technical progress.

The two-sectors framework can be used also to model the evolution of the Gini income concentration coefficient (Escaith, 2006). As transition occurs, the Gini describes an inverted U curve "à la Kuznets", being maximum when $L_1 = L_2 = ½$ for any given level of income differential between sector 1 and 2.[4]

For growth accounting purposes, the two sector model can be easily generalised to n sectors. In a multisectoral context, changes in labour productivity between two disconnected period of time (t = 0 ; T) can be decomposed as follows:

[4] This result holds even when discarding the Solow hypothesis of factor remuneration at the marginal productivity, as long as wages are in relation with sectoral added value (for example using a conceptual *référent* based on reservation or efficiency wages). The received theory of urban-rural migration, based on the Harris-Todaro model, is also based on the assumption that formal urban wages are set above marginal-productivity/market-clearing levels.

$$(P^T - P^0) = \sum_{i=1}^{n} [(P_i^T - P_i^0).(S_i^0 + S_i^T)/2] + \sum_{i=1}^{n} [(S_i^T - S_i^0).(P_i^0 + P_i^T)/2] \quad [7]$$

It should be noted that, because the analysis applies to discrete changes (and not to marginal continuous ones), various weighting sets of parameters can be used, and decomposition is not unique. For practical and statistical reasons,[5] we decided to use the arithmetic average of start and end points $[(S_i^0 + S_i^T)/2$ and $(P_i^0 + P_i^T)/2]$ to weight the changes $(P_i^T - P_i^0)$ and $(S_i^T - S_i^0)$.

From a statistical and growth accounting perspective, Maddison (1952) attributes to S. Fabricant the paternity of the fundamental formula used to separate the rise in productivity into two components: the change in productivity in each sector of the economy, which he calls the rise in "productivity proper" and the changes in the productive structure. The first sum on the right side of [7] represents changes in "productivity proper" observed for the *n* sectors. The second sum indicates the reallocation effect of labour between sectors (when labour shifts from a low-productivity to a high productivity sector, the net effect is positive on aggregate labour productivity).

We can expect the first element to be positive, as developing countries incorporate more and more technical progress in their production process. The second term should also be positive as long as the labour markets are segmented and the economy transits from a traditional to an industrialized state. In this case, one should expect workers to shifts to more productive employment opportunities. This is, for example, one of the force behind the rapid urbanization observed in developing economies. The difference in labour productivity and expected wages, which explains the urbanization process, is also the key factor behind the Harris-Todaro models.

When the economy reaches its steady state, labour markets are more homogeneous and structural shifts should not be as important compared with the transition phase. In this case, marginal sectoral productivity tends to be the same across sectors, and the economy starts behaving according to the Solow aggregated model.

From a statistical standpoint, the decomposition formula [8] can be used on national account data which are generally available at constant process for most countries in the world, provided that the corresponding disaggregation exists for labour force employed. The latter is, unfortunately, quite a restricting factor. For many developing countries, comprehensive labour force estimates by sectors of activity are available only for census years, because regular household surveys have an incomplete geographical coverage.

b. Comparing Asia and Latin America.

- Sources and coverage

Two different sources were used for the purpose of comparing the dynamic of productivity and its sources, sectoral recomposition or "productivity proper":

- For **Asia**, we use the results of Van Ark y Timmer (2003), from the Groningen Growth and Development Centre. They were computed using a very similar formula for nine Asian economies, at different stages of industrialization (Korea, Hong Kong, India, Indonesia, Japan, Malaysia, Singapore, Thailand y Taiwan.) The authors find that the traditional source of reallocating resources from agriculture to industry is still quite powerful for South Asian and South East Asian developing countries. The structural factor has not yet disappeared in the most advanced East Asian countries. These finding can be completed and reinforced with the results of a recent IMF publication, which uses similar decomposition approach and include more Asian countries, albeit at a more aggregated sectoral level. The results show that sectoral shifts have been particularly important in explaining the

[5] On practical aspects, using an average value avoids making arbitrary assumptions on the choice of weighting parameters and bridges the gap with alternative dynamic shift-share models; more formally, is allows for symmetry in the decomposition formula.

catching-up process. Within Asia, and especially in China, labour moved out of agriculture at a faster rate. Another reason explaining the strength of the sectoral reallocation effect is that the initial intersectoral productivity differentials were higher in Asia than in other developing regions (IMF, 2006).

- For **Latin America**, we use the results of Escaith (2006). The decomposition [8] was used on a set of nine Latin American countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru and Venezuela. The main findings of the reference paper are that inter-sectoral reallocation of resources was also relevant in explaining total labour productivity. But the labour shift was not predominantly from agriculture to industry, but from agriculture to services. Indeed, while industry was able to increase its "productivity proper", it was not creating enough job for the expanding urban population. As a result, the share on labour in manufacture decreased. This phenomenon was perceptible since the 1970s. Because the jobs created in services were of diminishing productivity, the end result was a slower increase in total value added per worker. Once again, these results can be compared with the findings of the IMF (2006), with Latin America registering lower share of manufacturing employment and lower share of manufacturing value-added than Asia. Indeed, according to this publication, "unlike Asia, Latin America experienced a decline over time in manufacturing productivity related to the United States", while "by contrast [with Asia] sectoral shifts were too weak to help promote convergence toward the United State".

Albeit using different approaches in the normalization of national account data and adopting slightly different version of the Fabricant Formula, the methodological approaches used in these two sources remain sufficiently similar to allow for a direct comparison of the respective dynamics of labour productivity.[6] The period covered corresponds to the 1985-2001 period, corresponding to the years for which most data were available in Van Ark and Timmer (2003). [7]

As always in descriptive statistics, the choice of the sample, in this case start and end years, may influence the results. The period 1985-2001 corresponds for Latin America to the depth of two economic recessions, the first one being harder than the second. In that sense, it makes sense to compare them as they correspond to the same recessive phase of two successive economic cycles. As far as Asia is concerned, 2001 was a year of stagnation in many countries, after the 1997-1998 crisis. This may perhaps introduce a negative bias in the Asian indicators (especially for the financial sectors).

- Comparative sectoral analysis

Tables 3.a and 3.b show the results obtained from the two references studies, using the nine sectors of national accounts. The first fact that literally jump to the eyes is that very few numbers from table 3.a (Asia) are negative, while they represent more than 40% on the numbers appearing on the Latin American sheet. As a matter of facts, average annual productivity growth (a close indicator of real wages income) has been negative in Bolivia, Mexico, Peru and Venezuela, while it almost stagnated in all other Latin American economies, with the exception of Chile.

Indeed, with a 3.6% average annual increase in labour productivity, Chile is the only Latin economy that approximates the Asian pattern of productivity growth. If we exclude Japan, a mature industrialized country whose productivity per worker grew at close to 2% yearly, the results for the Asian developing and New Industrialized Economies (NIE) range from 2.6% (Indonesia) to 4.8% (Taiwan).

[6] This holds reasonably well because comparisons are restricted here to first differences and do not intend to parallel absolute magnitudes in value-added by worker, which would require normalizing a series of parameters, such as exchange rates and the base year to be used in deflating prices.

[7] Escaith(2006) covers the period 1960-2003.

Table 3.a Sectoral decomposition of aggregate labour productivity as percentage of aggregate growth, Asia 1985-2001 (in percentage)

	Asia								
	Hong Kong			India			Indonesia		
	Total	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*
Annual Productivity Growth (1985-2001)	3.6	1.8	1.8	4.0	4.1	-0.1	2.6	0.4	2.3
Sectoral Contribution:	100	50	50	100	102	-2	100	13	87
Agriculture	-1	-1	0	4	11	-7	-29	4	-33
Mining	0	0	0	3	2	0	15	-5	20
Manufacturing	32	32	0	21	21	0	57	18	39
Public Utilities	12	10	1	4	3	0	8	4	4
Construction	1	0	0	8	7	1	5	-6	11
Wholesale and Retail Trade	19	13	6	17	15	1	17	7	11
Transport and Communications	12	9	3	12	12	0	6	0	6
Finance, Insurance and Real Estate	7	-29	36	13	11	2	7	-19	26
Community, Social and Personal Services	19	15	4	19	19	0	14	10	3
	Japan			**Malaysia**			**Singapore**		
	Total	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*
Annual Productivity Growth (1985-2001)	1.9	1.7	0.2	4.5	3.8	0.7	3.8	3.3	0.4
Sectoral Contribution:	100	88	12	100	85	15	100	88	12
Agriculture	0	0	0	-1	2	-4	-1	0	0
Mining	0	0	0	15	9	6	0	0	0
Manufacturing	44	43	1	27	18	9	44	43	1
Public Utilities	4	3	1	5	3	2	4	3	1
Construction	2	0	2	-4	-1	-3	7	7	0
Wholesale and Retail Trade	9	10	-1	7	11	-4	18	19	-1
Transport and Communications	7	6	1	8	5	2	16	15	2
Finance, Insurance and Real Estate	22	19	4	18	10	8	13	-5	18
Community, Social and Personal Services	7	3	4	9	10	-1	-2	6	-9
	Korea			**Taiwan**			**Thailand**		
	Total	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*
Annual Productivity Growth (1985-2001)	4.6	4.0	0.6	4.8	4.1	0.7	4.2	1.3	2.8
Sectoral Contribution:	100	87	13	100	86	14	100	32	68
Agriculture	1	4	-2	1	1	0	1	8	-7
Mining	2	2	0	1	1	0	8	6	2
Manufacturing	60	57	3	35	33	2	47	22	26
Public Utilities	6	5	1	4	4	0	14	9	5
Construction	7	3	3	0	1	-2	-3	-12	8
Wholesale and Retail Trade	4	8	-4	17	16	1	5	-11	16
Transport and Communications	10	9	1	11	10	0	17	11	6
Finance, Insurance and Real Estate	12	3	9	14	3	11	0	-5	5
Community, Social and Personal Services	-3	-3	0	7	8	-1	8	2	6

(to be continued .../...)

Table 3.b Sectoral decomposition of aggregate labour productivity as percentage of aggregate growth, Latin America 1985-2001

	Latin America								
	Argentina			Bolivia			Brazil		
	Total	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*
Annual Productivity Growth (1985-2001)	0.8	0.6	0.2	-0.1	0.4	-0.3	0.2	0.0	0.1
Sectoral Contribution:	100	75	25	-100	-303	203	100	21	79
Agriculture	6	16	-10	-15	32	-48	23	106	-83
Mining	11	16	-6	-14	110	-124	17	5	12
Manufacturing	-12	74	-86	-10	-83	73	-22	-115	93
Public Utilities	11	16	-5	9	21	-12	21	13	9
Construction	-6	8	-14	-7	-62	55	-14	-47	33
Wholesale and Retail Trade	-5	-12	6	-17	-174	157	1	-15	16
Transport and Communications	32	14	19	33	45	-12	57	36	21
Finance, Insurance and Real Estate	47	-33	79	39	-196	235	-47	42	-89
Community, Social and Personal Services	17	-24	41	-118	4	-122	65	-2	67
	Chile			**Colombia**			**Costa Rica**		
	Total	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*
Annual Productivity Growth (1985-2001)	3.6	2.5	1.1	0.5	0.4	0.1	0.8	0	1
Sectoral Contribution:	100	70	30	100	80	20	100	-35	135
Agriculture	7	13	-5	-7	51	-58	1	39	-38
Mining	9	21	-12	44	33	12	-1	0	-1
Manufacturing	16	22	-6	-19	-11	-8	43	36	7
Public Utilities	4	5	-1	2	-1	4	9	2	7
Construction	10	5	5	-33	-35	2	-9	-11	3
Wholesale and Retail Trade	14	6	8	-19	-70	51	27	-74	100
Transport and Communications	13	10	3	6	-3	10	39	9	30
Finance, Insurance and Real Estate	23	-28	51	26	55	-29	19	-62	81
Community, Social and Personal Services	5	18	-13	99	61	38	-28	25	-53
	Mexico			**Peru**			**Venezuela**		
	Total	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*	*Total*	*Proper*	*Shifts*
Annual Productivity Growth (1985-2001)	-0.4	0.8	-0.4	-0.6	1.0	-0.5	-1.0	1	0
Sectoral Contribution:	-100	-215	115	-100	-189	89	-100	-139	39
Agriculture	-17	8	-25	18	37	-19	-3	7	-10
Mining	-5	8	-13	-4	40	-43	15	-2	16
Manufacturing	13	-2	15	-17	3	-20	-27	-25	-1
Public Utilities	2	3	0	9	11	-2	1	3	-2
Construction	-15	-36	21	14	28	-13	-18	-28	10
Wholesale and Retail Trade	-30	-135	105	-25	-113	88	-28	-27	0
Transport and Communications	23	13	11	0	-20	20	-5	-12	7
Finance, Insurance and Real Estate	10	-30	40	9	-74	83	-21	-35	14
Community, Social and Personal Services	-83	-45	-39	-105	-99	-5	-15	-20	5

Notes: Values in percent of total labour productivity variation. Annual growth is linear (simple arithmetic average) and not a compound rate.
Sources: Author's calculations based on Van Ark and Timmer (2003) and Escaith (2006).

From a comparative perspective, two major aspects merit attention:

- First, the structural role of the industrial sector in "explaining" productivity growth in Asia, based on advances in both "productivity proper" and "labour shifts". In Latin America, it proved almost impossible for the manufacturing sector to advance simultaneously in both productivity and labour share, Costa Rica being the exception. In general the two components of productivity growth evidenced opposite signs, and were sometime negative in both dimensions (Colombia and Venezuela).[8]

- Second, the service sectors in Asia did not experience an outstanding growth in employment, relative to other sectors. Parallel to job creation in services, added value per employee increased, with a few exceptions (finance in Honk Kong and Indonesia being the most notable, and

[8] Contrary to the standard Cobb-Douglas function, labour inputs can increase together with labour productivity as a result of intra-sector shifts from low-productivity firms to higher ones, scale effects due to increased market shares, or a combination of both.

related probably to the 1997-1998 financial crisis). In addition, shifts out of the agricultural sectors were moderate. Thus, Asian countries remain basically good-producing economies, with an continuing shift towards industrialization. On the contrary, in many Latin American countries, the service sectors absorbed an increasing share of the working force.

It would be wrong to pretend that this occurs because Latin American countries represent a more advanced subset of economies, that are transiting towards a post-industrialised "service oriented" society. In Latin America, the jobs offered by the service sectors were generally of low and decreasing productivity. This denotes a dysfunctional situation where the highly productive sectors are not able to create new jobs, and new entrants in the labour market have to settle for low-quality jobs. These shortcomings were identified as the sources of the increasing wage gaps observed in the 1990s, and the reappearance of a large informal sector in this region (Escaith, 2006)

From a view point of systemic competitiveness and international trade, it would also be erroneous to reduce the debate between two models, the outwards-oriented one stressing tradable goods in Asia and the inwards-oriented post-industrialized Latin American case, with most jobs created in services. As in the business management distinction between back office and front office functions in a firm, both being necessary to the firm competitiveness and efficiency, many services are complementary to the production functions. As investment in infrastructure (roads, electricity network) is complementary to production, the same can be said of telecommunication services and other similar activities. The systemic competitiveness of the economy depends not only on its exporting industry, but also on the quality of the "infrastructure" services provided to these industries.

- Tradable, infrastructure and other services.

Taking into consideration the above mentioned arguments, the initial nine National Account sectors were aggregated into three categories: tradable goods production, "infrastructure" services, and the rest of sectors (representing basically public and private services to households).

Table 4 shows a summary of the two regions, with a sectoral aggregation between Good production (Agriculture, Mining, Manufacture); Infrastructure services (Public Utilities, Construction and Transport and Communication) and the other non specified services. The classification is arbitrary, as it is usual. For example, economic theory indicates that financial services are key to enhance firms' productivity, especially by screening out investment projects. On the other hand, most jobs created in banking were to serve households, which justified its classification in the third category.

The summary table 4 reveals the contrast between the two regions. True to their respective cultural background, Asia is showing more harmony and equilibrium while Latin America stands for the contrasts and oppositions. But the consequences of these contrasting results for Latin America are preoccupying in terms of international competitiveness and population welfare. Once again, the poor quality of the Latin American jobs created in other services is appalling. In Asia, these services are also gaining importance in the labour market, but are doing so in line with the development of the rest of the economies, and the job created are of good quality (productivity proper raises in these sectors, in line with labour participation).

Table 4. Accumulated Changes in Labour Productivity, 1985-2001: Comparative Aggregated Table

Asia	***Total***	***Proper***	***Shifts***
- Goods	5,077	4,310	767
- Infrastructure Services	2,402	1,635	767
- Other Services n.e.s	3,981	1,965	2,016
Total (USD)	11,410	7,911	3,550
Annual Labour Productivity Growth (%)	*3.78*		
Latin America	***Total***	***Proper***	***Shifts***
- Goods	706	6,105	-5,399
- Infrastructure Services	2,634	-227	2,860
- Other Services n.e.s	-1,951	-14,701	12,750
Total (USD)	1,389	-8,823	10,212
Annual Labour Productivity Growth (%)	*0.43*		

Sources: Based on Table 3.
Notes: Accumulated variation refer to average across country, in 1990 USD. The respective contributions for each sectoral aggregate were obtained by simple average across sectors and countries.

Information gathered from secondary data sources seems to validates the contrasting sectoral results obtained between Asia and Latin America. For example, IMF(2006) indicates that "the movement of labor into the services sector was at least as large as that toward industry. Also [except in Japan and the NIEs] in most of Asia the share of industry in total employment is still growing. Unlike Asia, Latin America experienced a decline over time in manufacturing productivity relative to the United States...".

Thus, it seems safe to conclude this empirical section on sectoral decomposition of productivity growth by stating that productivity increase in Asia is based on a virtuous structural transformation, which in turn sets the grounds for a sustainable projection of the present trend. Obviously, one should expect the contribution of structural changes to total labour productivity to diminish with the reduction of surplus labour from agriculture, but for the time being the transition is functioning. It means, as a corollary, that Asia should keep on reducing its productivity gap and increase its non-monetary competitiveness on the international markets. Latin America, on the contrary, seems engaged in a perverse transition from one dualist model, where subsistence sector is located in the tradition rural area, to a new dualist society, with a growing urban informal sector similar to the "murky sector" analysed in Fields (1975) and larger income gaps.

Returning to our conceptual "*référent*", the sectoral data presented in this section tends also to show that Asia is going through the transition from traditional to modern as expected from the Lewis model, while the Latin American case indicate a trounced transition. The external sector mimics the internal situation: because differences in domestic sectoral productivity (and wages) remain large, Latin America finds difficult to close the systemic productivity gap with industrialised economies, and loses external competitiveness *vis-à-vis* Asia.

3. Globalisation and the macroeconomic restrictions to full structural transition.

This part reinserts nominal and financial aspects into "real" structural analysis, to examines how a broad fall in trading and financial transaction costs may have affected the key determinants of structural adjustment, positively, in the case of Asia, and negatively in Latin America. The initial Lewis model was of a closed economy, and the speed of the transition from traditional to modern was

constraint by internal investment and savings capacities. The liberalization of international goods and financial markets was supposed to reduce these internal restrictions by opening new export markets for the national products and facilitating capital accumulation in the modern sector by attracting external savings.

The statistical evidence shows that globalisation was effective in opening both real and financial markets. The development of international financial markets has been far more dynamic than that of trade in goods and services. Nevertheless, international trade has been increasing much more rapidly than global GDP, and one of the most important feature behind this process has been the growing importance of emerging market economies in world trade. Our results show that Asia was able to thrive on this trend to foster domestic production and productivity, while Latin America failed.

One plausible interpretation is that, in Asia, the creation of new jobs in the service sectors responded to a growing effective demand for this type of activity. As this supply responded to an actual demand (e.g., from an expanding industrial sector in need of business services, or from households with the raise of a middle class), additional value added was created in this process. This means that sectoral and average labour productivity kept on increasing, and the higher salaries paid to the service sector helped in turn sustaining the demand.

At the contrary, the Latin American data indicates a situation where industry faced difficulties to increase its sales on the international market, and was forced instead into a process of productivity enhancing investment to defend its market shares. [9] As a consequence, the modern manufacturing sector has not been able to absorb the surplus labour force originating from the traditional sector, or resulting from the natural increase in the active population. In absence of social protection for the unemployed, working in the (informal) service sector remained the only feasible strategy for job seekers. As job creation in these sectors did not respond to an increase in demand for their services, value-added per worker decreased.

The truncated transition in Latin America is therefore most probably attributable to demand constraints. These restrictions from the demand side impede the expected transition to a competitive industrial economy (once again, competitiveness here is systemic: persistent dualism implies that, even if it is possible to find islands of competitiveness in Latin America, these islands do not play their expected role of development poles).[10]

Effective demand, when one refers to developing countries, is chiefly limited to external demand. This reductionism is explained usually by the shallowness on internal market and, more importantly, its limited multiplier effect due to the necessity of importing capital and high technology goods. This tradition of analysis starts with the Harrod-Domar's warranted rate of growth in a closed economy model, and extends it to the case of open developing economies as in the well known "two-gaps" models. Foreign capital can raise their growth rate by temporarily lifting their saving constraints, and providing the foreign exchange to pay from necessary imports. But in the long run debt should be repaid, and developing countries need to export in order to grow. A strategy focused on internal demand would quickly face balance of payment constraints, as it happened in Latin America with the external debt crisis of 1982.

The structural reforms implemented during the 1980s intended to reshape the productive sector along an export-led model of development, inspired by the "Asian Miracle". By opening their economies, the reformers expected to correct the allocation efficiency gap of previous inward-oriented

[9] Escaith (2006) shows that "productivity proper" increased dramatically in Latin America in the early 1990s, returning to the growth rate registered during the "golden years" of the 1960s. But at the same time, the industry reduced its participation in the labour force. This suggests that reforms in LA were successful at microeconomic level, but were less so from a macro perspective. This pattern differs from what is been observed in Asia , were investment in manufacturing increase both productivity and capacity, resulting in higher employment.

[10] It is tempting to blame the "*maquiladora*" mode of industrialisation for this outcome. But the Asian example shows that processing manufactured goods for exports can be used by emerging economies to rapidly close the productivity gap and build an industrial base out of the production of labour-intensive parts. Indeed, from the dual perspectives of development macroeconomics (binding external constraints) and new "trade-in tasks" paradigm, "*maquiladoras*" should be considered part of the solution.

policies, and to foster the development of labour intensive and internationally competitive manufactures. As a matter of fact, the reverse was observed. Most of the investment that took place in these sectors was to increase efficiency and gain competitiveness in the face of external competitors. It led to an increase in the capital/output ratio, but not to an increase in total capacity nor in the use of more labour. At the contrary, employment in these sectors reduced its share of the total labour force, as is exemplified by the negative signs affecting labour-shifts.

This may not be surprising, if one remembers that most analysis of the success behind the Asian Newly Industrialized Economies in the 1970s stressed that the demand-side factors were as likely –or more– to explain the success of export-led strategies, than supply-side considerations. By adopting an export-led orientation, these countries did not immediately benefit from greater growth in technical efficiency (the Maddison's "productivity proper"); but the expanding demand linked to export orientations did help them to maintain productivity levels in the face of a rapid increase in production (Pack, 1988). Viewed from this perspective, the advantage of the first phase of export orientation was more quantitative than qualitative: labour could be moved rapidly from low productivity sectors to high productivity activities without confronting diminishing returns.

This implied that real competitiveness (the capacity to efficiently produce what was demanded by the international markets) had to be supported during all the transition process by a competitive exchange rate (nominal competitiveness). The difficulties faced by Latin America to seize the opportunities offered by international trade may be related to a lack of competitiveness, itself related to a misalignment of the effective exchange rates during the transition period.

This relative overvaluation is symptomatic of the so called "resource curse": from an international perspective, Latin America is comparatively rich in natural resources, which attract investments and appreciate the real exchange rate. By the time of trade liberalization, on the other hand, Asian developing countries with large pools of unskilled labour force and lower wages, such as China and India, were already emerging in the world trade scene, rapidly gaining market shares in the OECD countries.

These effects put a cap to the development of internationally competitive labour-intensive industries in Latin America and forced a pattern of specialization based on higher-skilled labour (Perry and Olarreaga, 2006). [11] But this niche of specialization is capital intensive, and was already occupied by the NIEs such as Korea or Taiwan. Therefore, this strategy could not generate enough jobs to absorb the new entrants in the urban labour market, and lower wages in the industrial sector would not solve the excess labour supply. At the contrary, salaries for higher-skill workers and professional increased as firms were competing to attract the needed technicians. Infrastructure services (with the exception of construction) were also investing much more in new technologies during the 1990s and relying more on capital intensive processes.

At the difference of East Asia, were manufacturing firms have been able to create enough low-qualification jobs to absorb the rural migrants and the new entrants into active population, in Latin America, the oversupply of labour had to be absorbed by the non-infrastructure service sector. As the domestic market for such services was not expanding accordingly, labour absorption was accompanied by a decrease in value-added per worker (and real salary) in the formal sector, and –increasingly– by the rise of the urban informal sector. The share of informal sector in total urban employment increased from 43% in 1990 to 47% in 2003, in a context of increased intersectoral income differential (Weller, 2005).

It would be erroneous to conclude that East Asia also was able to avoid this increase in income differentials. Table 2 indicates that the Gini coefficient raised significantly in this region between 1990 and 2000. As we previously pointed out, this outcome is coherent with the Lewis' model prediction; in the case of Asia, it reflects the rise of an urban middle class as workers move-up the income distribution ladder by reallocating from traditional to industrial sectors. But the rise of this

[11] *[TN ‡: There are indications that this strategy proved effective at micro-economic level. According to Bender and Li (2002), Latin American revealed competitive advantages in manufacture improved in the 1990s. But this qualitative improvement had limited macroeconomic effects due to Latin America's low initial share in world manufacture exports.]*

middle class creates new market demands and new jobs in services, that fuel the virtuous Lewis circle and create the condition for a more internal-demand driven economy.

4. Prospects and policy options

The prospects for Latin American income distribution are not bright, if the recent simulation from World Bank are to be believed. According to its simulations, the share of Latin American in the bottom decile of global income distribution could rise by 50% in 2030 (World Bank, 2007).

Albeit "*comparaison n'est pas raison*", the Asian example could serve as a guide for future policy. Macroeconomic policy has been carefully managed in most Asian country to complement export-led policies, but such a strategy is not easily put into practice. [12]First, nominal wage increases have to be kept under control in order to maintain the overall favourable competitive position and control the income gap between rural and urban population.

Writing on China economic policy challenges, Flasbeck (2005) recommends that, if it is not possible to keep wage increases inline with productivity, a crawling peg with constant devaluation might be the second best solution. But one should be reminded that real exchange rate, which determines nominal competitiveness, is not a flexible policy variable, even with the capital controls recommended by this author. The experience of Thailand when such controls were implemented to curb currency appreciation are an example. More importantly, competitive devaluations undertaken at global level are at best a zero-sum games, and are not sustainable.

On the other hand, prudent macroeconomic management may be able to prevent the non-structural appreciation of real exchange rate that accompany the over-heating phases of the economy. Some sort of short-term capital controls may be one option to reduce volatility in the capital account of the balance of payment, and structural targets for fiscal policy are certainly helpful for reducing the volatility of internal demand.

Nevertheless, prudent macroeconomic policies might not be enough to help Latin American countries breaking the vicious circle that led to the new dualism. Our analysis suggests that productivity performances reflect in good part the capacity to reallocate existing resources. In particular, the findings underline the importance of :

(i) Fostering sectoral and geographical labour mobility, not only in the restricted sense of labour market flexibility, but also by helping workers to move to better paid or more promising jobs (putting emphasis on technical education and training, a portable pension scheme and pro-active regional planning to up-grade public services outside capital cities);

(ii) Helping small firms (representing the majority of jobs, especially in the regions) to gain directly or indirectly access to the global market. Helwitt and Gillson (2003) review a series of measures that trade facilitation programmes could undertake in order to increase employment, especially from the small and medium firms.

(iii) Seizing the opportunity offered by off-shoring and out-sourcing from industrial countries, to generate a critical mass of manufacturing jobs, especially within the low-to-middle qualification brackets, where the deficit is higher. The Asian example shows that export processing is part of the solution, fostering "learning by doing". [13] These activities are also usually located outside the capital city, reducing the regional asymmetries in job opportunities.

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[12] *[NT ‡: some of the Asia-Latin America industrial symmetries have been developing also in the euro area, Germany engaged in the late 1990s in a reshaping of her industrial sector, boosting competitiveness through a mix of off-shoring and cost-control policies, and was able to consolidate her position as first world exporter (a position challenged by China) despite the euro's appreciation, while southern European countries (France, Greece, Italy and Spain) came to increasingly rely on labour intensive internal services and construction. By loosing systemic competitiveness and eroding both their fiscal and external balances, they became highly vulnerable to the housing bubble and a potential down-grade of their public debt.]*

[13] In Latin America, at the contrary, it is not unusual to see these activities, dubbed as "*maquiladoras*" as part of the problem (see footnote 10). In line with the industrialisation by import substitution (ISI) tradition,

(iv) Finally, the Latin American region may also accept the truncated industrialization as a fact, and look into its large services sector as a potential for exports. Traditionally considered as non-tradable by development economists, trade in services has increased significantly thanks to the advance in IT technology and the new business models –including trade in tasks– that emerged with globalisation. Some Latin American firms have been able to benefit from this trend (ECLAC, 2007). Here too, public policies should not focus only on high or specialised skills (e.g. specialised medical treatment, IT, finance), but include also activities such as health and personal care or tourism, that offer a higher potential for creating jobs in the low to medium qualification brackets.

The policy implications of the Harrod-Todaro class of models –privilege rural development to limit the encroachment of the urban "murky sector"– can usefully complement these policy measures. Not only to reduce income inequality, but also to assure that inter-sectoral mobility and urban migration are based on actual job opportunities and productivity-based income differences, and not on false expectations.

5. Conclusions

The paper analyzed from an empirical perspective the structural determinants of productivity and non-monetary competitiveness in a selection of Asian and Latin America countries. Using sectoral growth accounting techniques, it was possible to differentiate and measure the labour productivity variations that originated from "productivity proper" and those that were due to the reallocation of labour between sectors of activity.

The empirical analysis is based on data available for nine Asian and nine Latin American economies for the period 1985-2001. The results indicate that the traditional source of reallocating resources from agriculture to industry is still quite a powerful factor in both regions, albeit in Latin America it does not always lead to a favourable outcome as far as total labour productivity is concerned.

The data indicate also a very contrasted situation between both developing regions. While Asian real economy appears to be engaged in a relatively smooth transition from the low productivity traditional activities to a more industrialized economy, the pattern emerging out of the Latin American data indicates a polarizing trend, with a tendency to create a new dualistic economy.

While industry in Asia was able to close the productivity gap with industrialised countries and gain international competitiveness in manufacturing, its firms were also capable of using globalisation to expand their market and create more jobs. In Latin America, industries adopted a more defensive strategy; industrial investment was meant to preserve competitiveness in the international market by improving productivity, but was not meant to increase production capacity, at least on a sectoral scale.

As a result, the Asian productive sectors were able to offer jobs of increasing quality to their economic active population in both goods and services sectors. From a structural perspective, Asia followed the predictions of the Lewis model. In Latin America, structural reforms were successful at microeconomic level, as firms improved their competitiveness, but less so from a macro perspective as few new jobs were created. Because industries did not create new job opportunities in the low to middle qualification brackets, Latin America experienced a truncation of its structural transition. The relative excess supply of labour was absorbed reactively by the service sector, in a context of decreasing value-added per head. Dualism, typical of the initial phases of the Lewis model, reappeared with the growth of a large urban informal sector.

To explain the diverging trajectories, the paper advances that a mixture of real and nominal factors may be at work. When Latin America tried to apply the Asian export-led strategy and adopted trade liberalization to solve the structural imbalances that caused the 1982 crisis, it faced strong competition from a new wave of Asian developing countries with large pools of cheaper labour. In

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the Latin American structuralist school has privileged vertically integrated "national champions" to be the leading agents behind changes in production patterns and increase in total factor productivity. We argue that both strategies are complementary, and not substitute.

this competition, Latin America may have also suffered from structurally overvalued exchange rates, because it is comparatively richer than Asia in natural resources. The resulting lack of competitiveness on labour intensive manufactures squeezed the Latin American manufacture into higher productivity types of activity, which increased the demand for higher skills and depressed the offer of more traditional industrial jobs.

The deterioration of the income distribution in Latin America resulted from two trends: (i) a higher demand for high qualification workers, pushing up the salary of professionals and technicians (like in Asia), (ii) an excess supply of labour in the services sector leading to a decline in value added per worker and lower salaries. The emergence of a large urban informal sector, with the resurgence of a new dualism in the labour market, epitomizes this situation.

Because nominal factors are part of the determinants of the international competitiveness, appropriate demand management at the macroeconomic level are therefore needed to avoid real exchange rate cycles and provide the domestic firms with a favourable competitive environment. But structural issues call for structural remedies, and the rationale behind the Lewis and Harris-Todaro models suggests some lines of action. Considering the importance of the labour reallocation component in explaining total factor productivity, the structural policies should include actions aimed at facilitating resource-shifts from low to high productivity sectors, while promoting rural development to limit spurious inter-sectoral shifts. As small and medium firms are the dominant employers in most developing countries, they should also be the main beneficiaries of trade facilitation policies.

Finally, the Latin American region should look for export opportunities outside the manufacturing sector. Thanks to the IT revolution and the new international business models, its large services sector has a potential for developing new export activities, a way that has been successfully taken by India. Health and tourism sectors are particularly attractive labour intensive activities, because they create jobs across the full range of low to high qualifications.

Bibliography

Bender, Siegfried and Kui-Wai Li (2002) "The Changing Trade and revealed Comparative Advantages of Asian and Latin American Manufacture Exports", Economic Growth Centre, Yale.

Blanchard, Olivier J. and Giavazzi, Francesco (2005) "Rebalancing Growth in China: A Three-Handed Approach". MIT Department of Economics Working Paper No. 05-32

Caselli Francesco and Wilbur John Coleman (2006) "The World Technology Frontier" The American Economic Review, June, pp 499-522.

Dikhanov, Yuri (2005) "Trends In Global Income Distribution, 1970-2000, and Scenarios For 2015", Human Development Report 2005

ECLAC (2007) "Latin America and the Caribbean in the World Economy 2006-2007"

Escaith Hubert (2006) "Industrialización truncada y terciarización sustitutiva en América Latina" Problemas del Desarrollo, Vol. 37, núm. 147, octubre-diciembre / 2006 pp.45-52.

Fields Gary (1975) Rural-Urban Migration, Urban Unemployment and Underemployment, and Job-Search Activity in LDCs Journal of Development Economics 2 p. 165-187

Fields Gary (2005) A Welfare Economic Analysis of Labor Market Policies in the Harris-Todaro Model. Journal of Development Economics 76. p 127-146.

Flasbeck, Heiner (2005) "China's Spectacular Growth since the Mid-1990s –Macroeconomic Conditions and Economic Policy Challenges", published in "China in a Globalizing World" UNCTAD

Goldberg, Pinelopi Koujianou and Nina Pavcnik (2006) "Distributional Effects of Globalization in Developing Countries", NBER.

Groningen Growth and Development Centre data base and website http://www.ggdc.net/home.shtml

Harris, John and Michael Todaro (1970) Migration, Unemployment and Development: A Two Sectors Analysis. American Economic Review 60, p. 126-142

Hewit, Adrian and Ian Gillson (2003) "Income distribution impact of trade facilitation in developing countries" Second International Forum on Trade facilitation, UN European Commission for Europe, May 2003

IMF (2006) "Asia Rising: Patterns of Economic Development and Growth" Chapter 3 of World Economic Outlook, September.

Lewis, Arthur (1954) "Economic Development with Unlimited Supplies of Labour" The Manchester School of Economic and Social Studies, Vol 32 pp.1-32

Maddison, Angus (1952) "Productivity in an Expanding Economy" The Economic Journal Vol. 62 pp. 584-594

Pack, Howard (1988) "Industrialization and Trade" Handbook of Development Economics, Vol. I, Edited by H. Chenery and T.N Strinivasan, Elsevier Science.

Perry, Guillermo y Marcelo Olarreaga (2006) Trade Liberalization, Inequality and Poverty Reduction in Latin America Paper presented at the Regional World Bank Conference on Development Economics, St Petersburg.

Poirson, Hélène (2000) "Factor Reallocation and Growth in Developing Countries" IMF WP/00/94.

Ranis, Gustav (2003) “Is Dualism Worth Revisiting?” Center Discussion Paper No. 870, Yale Univ.

Ros, Jaime (2000) "Development Theory and the Economics of Growth". Ann Arbor, Michigan University Press

Syrquin, Moshe (1988) "Patterns of Structural Changes" Handbook of Development Economics, Vol. I, Edited by H. Chenery and T.N Strinivasan, Elsevier Science.

United Nations (2007) "The Millenium Development Goals Report", New York.

Van Ark and Marcel Timmer (2003) Asia's Productivity and Potential: The Contribution of Sectors and Structural Changes, University of Groningen, May.

Weller, Jürgen (2005) “Problemas de empleo, tendencias subregionales y políticas para mejorar la inserción laboral” CEPAL, Serie Macroeconomía del Desarrollo, n. 40

Winters Alan et al. (2007) "The WTO and Poverty and Inequality: Critical Perspectives on the Global Trading System and the WTO. Vol. I and II" Edward Elgar Publishing, UK.

World Bank (2007) "Managing the Next Wave of Globalisation" Global Economic Prospects 2007.