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Neutralizing tendency of wages to grow below productivity rate

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"Mystery", "surprise", "reproach to economic theory": what must we think about income distribution evolution in semi-industrialized Latin-American economies?[1]

The apparent stability on relative shares in revenue during the 2000s, or even the increase increase in wages share in Latin-American countries, seems to be a "*surprise*" in Kaldor's opinion, or even a "*mystery*" for Schumpeter, or well finally "*a reproach to economic theory*" according to Robinson. Various theories trying to explain sharing of value added insist on investment relative size, saving importance, different types of technical progress (biased or not), amount of idle capacity, cost structure, intermediate products importance, higher markup rates searching by entrepreneurs and, consecutively, on distributive conflict. We will analyze main macroeconomic models — those of Kaldor, Robinson and Kalecki — in order to overtake that "reproach to economic theory".

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In Latin America the 1980s are characterized at the same time by hyperinflation in several countries, a high volatility of GDP with a trend more or less facing the decline, a trend towards stagnation of productivity and a strong puncture of internal

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[1] Translation made by José Luis Solís, economist and researcher at the Autonomous University of Coahuila, Mexico.

resources to finance external debt service. Share of wages in value added varies strongly up and down for several reasons: 1 / hyperinflation has significant distributive effects: it "taxes" incomes (inflation tax) even more strongly when they are weak; on the contrary, when inflation rate falls as it was the case during brief periods of administrative price stabilization, real wage rate increases and its share in total revenue grows; 2 / amplitude of changes in wages is higher than that of productivity, especially in Argentina, and the resumption of economic activity is not immediately accompanied by an increase in wages. During the decade under review share of profits in value added increases but fraction of finance profits in total profits grows, particularly fraction of those related to external and, primarily, internal debt service. Fixed investment rate declines, sometimes drastically. Several factors explain at the same time decline of wages share in total income during the eighties, its volatility and the decoupling of wages and productivity trends: long term hyperinflation interrupted by short periods of price stabilization and GDP volatility.

The 1990s in Latin America characterize by the end of hyperinflation, by renewed growth at low rates in Brazil and Mexico but higher in Argentina, a lesser volatility than in the 1980s in the first two countries but remaining strong in the third, a resumption of productivity growth at a moderated rate. This period is characterized mainly by a rapid and consistent opening to international trade and international finance. A first break with the past appears. Formal employment suffers the effects of informalization and flexibilization of the labor market; informal employment grows in relation to formal employment and, especially, the gap between growth of labor productivity and that of wages increases. Share of wages in value added fell again, after increasing with the end of hyperinflation. With the exception of the decade's first year, characterized by a rapid decline in inflation rate, changes in income distribution cannot be explained by the rise of prices, since it remains at a low level. Thus, trade and financial globalization appear to be the foremost responsible for decline in value added share of wages.

2000s in Latin America, more exactly since 2003-2004, are characterized by an economic growth higher than in the past, a less pronounced volatility excepting the contagion effects of international crisis in 2009, a more sustained growth of labor productivity and an increase in real wage, accompanied by a relative decrease in informal jobs weight. Break with the 1990s lies in the evolution of wages and productivity: instead of divergent developments these evolutions tend to be parallel, or even slightly converging. Nevertheless, the explanation by globalization does not appear to be sufficient. Trade globalization as well as financial one has deepened during the 2000s, providing privileged transmission channels for crisis in developed countries during 2008-2009. *Their effects on income distribution "should" be the same than those observed in the 1990s. However, they are radically different.* Is it possible that globalization impacts on the evolutions of wages and productivity are being offset by other effects acting to the contrary?

Trade globalization, financial globalization, diffusion of technical progress and aggravation of distributive conflicts do not produce the same effects on income distribution during the 1990s and in the 2000s in Latin-American semi-industrial-

ized economies. Increasing share of profits in income during the 1990s does not appear to offer particular interpretation problems, but during the 2000s apparent stability on relative shares in revenue, or even the increase in wages share, seems to be a *"surprise"* in Kaldor's opinion, or even a "*mystery*" for Schumpeter, or well finally "*a reproach to economic theory*" according to Robinson. Various theories trying to explain sharing of value added insist, depending on authors, on investment relative size, saving importance, different types of technical progress (biased or not), amount of idle capacity, cost structure, intermediate products importance, higher markup rates searching by entrepreneurs[2] and, consecutively, on distributive conflict[3]. We will analyze main macroeconomic models — those of Kaldor, Robinson and Kalecki — in order to overtake that "reproach to economic theory".

Analyses we are going to present here were primarily designed to understand relative stability of functional revenue distribution in industrialized countries from the 1950s to the 1980s. It is certainly difficult to use these tools as such as that in semi-industrialized countries because certain specificities of industrialized underdevelopment could be ignored, like large size of informal sector, very high income inequalities and trend towards premature deindustrialization (see *infra* Boxed Text 2) in semi-industrialized Latin-American economies.

Prior to present these theoretical developments, it is useful to define what it means income distribution and to discuss reliability of existing statistical data.

RELIABILITY OF VALUE ADDED DISTRIBUTION MEASUREMENTS

There are two ways to measure income distribution: "functional" approach and "personal" approach.

Functional approach analyzes sharing of revenue between profits and wages. It is essentially holistic. Appraisal of relative shares in income is difficult (see Boxed Text 1 below). Therefore is not surprising that results differ significantly according to assumptions made. Data on share of wages in income differ more than fourteen points according to whether it refers to Basualdo's or Neffa's[4] contributions for

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[2] For Kalecki markup rate is the ratio of the difference between production value and wages (numerator), and wages in denominator.

[3] For a more complete discussion, see Stockhammer, E. (2009): "Determinants of functional income distribution in OECD countries", Working Paper 5/2009, IMK Studies, (1-58); this study presents the state of literature on this subject in the first thirty pages, before offering its own conclusions. See too Panigo, D., Toledo, F. and Agis, E. (2008): Poder de mercado, crecimiento y distribución funcional del ingreso en Argentina, Working Paper, Ministerio de Economía y Finanzas Públicas:(1-59).

[4] For the Argentina case, see: Basualdo, E. (2008): *Distribución del ingreso en la Argentina y sus condicionantes estructurales*, FLACSO-CLACSO, Observatorio Latinoamericano de Geopolítica, p. 4: 1-14. See too De la Garza, E. and J. Neffa (publishers, 2010): *Trabajo y modelos productivos en América Latina*, CLACSO, p. 325 and following pages, as well as Lindenboim, J, Kennedy and Grana, J. (2010): "El debate sobre distribución funcional del ingreso", in *Desarrollo Económico*, vol. 49, nº 196 (541-571). Similar data can be consulted in a very detailed document of Lozano, C., Rameri, A., Raffo, T. (2007):

example. In Basualdo's opinion, share of wages in income assessment based on Nation's Ministry of Economy and FIDE data, was in the first quarter 2001 of 31%, 23% in 2003; it then raises slightly up to 28% in the first quarter of 2007. We can find these data with a few nuances in the working paper number 9, March 2011, of CIFRA-CTA. From a different methodology, J. Neffa observed similar developments of share of wages in income. He estimates it in 42.1% during 2001, 34.3% in 2003 and then up to 42.9% of value added in 2007[5]. Share of wages recovery in value added since 2003, is explained essentially by improvement of wages and rise of employment coupled to a relative decrease of informal employment. It is significant and breaks with the trend observed in the 1990s.

Boxed Text 1 – Functional income distribution is difficult to assess

There are two approaches to assess functional income distribution: value added can be measured at *basic prices* or at *factors cost*. Indirect taxes and subsidies are not considered in the same way in each of these approaches. Gross value added at *basic prices* decomposes into labor payments, capital remunerations and net indirect levies of public administrations (i.e., "other" taxes on production less operating subsidies). Production valued at basic prices constitutes revenue actually perceived by the producer. Indirect taxes like VAT are deducted from invoice prices because they are linked to production quantity. "Other" indirect taxes linked to production, but independent of produced quantities, are not excluded (taxes on wages, local taxes). Finally, subsidies on products other than operating subsidies are added. To measure value added at *factors cost*, net indirect levies of public administrations are subtracted from value added *at basic prices* (i.e., taxes on production less operating subsidies) although finally it decomposes only on wages and profits. Depending on the approach chose, sharing between profits and wages is therefore not the same.

El debate de la distribución, Instituto de Estudios y Formación, CTA: 1-30. It may also be referred to Alfonsin, J.M. and Tarallo Gariup, E. (2008): *Distribución del ingreso en Argentina, 1950-2007*, Asociación del Personal de los Organismos de Control (APOC) and, for an analysis of personal income distribution, see Cruzes, G. and Gasparini, l. (2009): "Desigualdad en Argentina, una revisión de la evidencia empírica", *Desarrollo Económico*, Part 1, vol. 48, no. 192: 395-437 and Part 2, vol. 49, no. 193: 3-29. See too: Lo Vuolo (2010): *Distribución y crecimiento, una controversia persistente*, Editor Mino y Dávila. See especially chapter 3, CENDA (2010): *Anatomía del nuevo patrón de crecimiento y la encrucijada actual. La economía argentina en el. periodo 2002-2010*, Cara o ECSC (Publisher); see also chapters 4 and 6.

[5] Unlike conventions, in Neffa's estimates "mixed" revenues are not converted in salary; they are calculated at 11.2% of the value added. Wages of workers with informal jobs are accounted in a similar way that wages of workers with formal employments. In Basualdo's assessment it can be assumed that all incomes of "informal" workers (salaried or not) are not considered, which would explain low share of wages in value added.

Multiplication of taxes, different ways to manage incomes (so-called "mixed" revenues) by individual entrepreneurs, are factors that increase assessment complexity and also explain how it is possible to obtain different estimates on share of wages in gross value added. Individual entrepreneurs, namely workers "to their own account", most of them "informal" workers in Latin America, disappear as a distinct category; their incomes, so-called "mixed", are converted into wages. This convention regarding treatment of individual entrepreneurs is problematic and gives rise to numerous debates in industrialized countries (how to evaluate their "salaries"?), it is even more problematic for semi-industrialized economies in view of the importance of informal workers non-wage earners.

Methodology applied is rarely explained, which makes difficult interpretation of results. Difficulties also reside in data construction: 1 / statistical data are not always very reliable and long period series significance is not always very relevant; 2 / it is difficult sometimes to distinguish between different taxes in order to define whether they should be incorporated or not; 3 / Latin-American economies experienced a very pronounced volatility of GDP as well as of idle production capacity, investment and wages.

Macroeconomic models used to understand evolution of sharing in income (Kaldor, Robinson, *etc.*) were designed to understand stability on long-term shares in industrialized countries. Their transposition into semi-industrialized countries is problematic for several reasons: 1 / industrial sector is very heterogeneous and *mark up* searching behaviors differ profoundly depending on the size of companies; 2 / informal jobs are far from being marginal as in industrialized countries; 3 / rent activities, again very important, produce a great fragility on these economies when external shocks arise; 4 / finally, in macroeconomic models financialization is ignored, but it generates new behaviors characterized by the importance of *margin rates* imposed to enterprises by finance in industrialized economies and also, in different ways, in semi-industrialized economies.

Second approach on income distribution, so-called "personal" one, relates percentages of people and incomes acquired by them as percentages of total income. It is based on the Lorentz curve. This approach has been imposed as a result of the rising of methodological individualism paradigm. It is very instructive because it allows to compare the respective revenue share assigned to each decile, see percentile, of the population and to see how Lorentz curve deforms under the influence of different ways of insertion in the global economy (liberal, interventionist), productive specialization patterns (rent products exports versus industrial products exports, and beyond that, on which industrial products specialization concentrates), economic growth models, direct and indirect State intervention on income distribution. Since the 1990s, market liberalization has been accompanied by a more unequal income distribution

in industrialized countries; shares of the 1% richer as well as that of the richest 0.1% are increasing strongly. Lack of precision in Latin-American statistics on income percentiles does not allow to know in a reliable way share of the 1% richest and especially to know how it has evolved[6]. Overall distribution of income, including wages, became less uneven in the 2000s in Latin-American economies to the difference of what can be observed in industrialized countries[7].

The two approaches are not identical. One of them analyzes the distribution of income between wages and profits, the other presents distribution of income pattern between individual persons (other than moral or legal) regardless of revenues origin (salaries before direct taxes net of transfers, dividends, interest and rents). Nevertheless, these two approaches are complementary, rich and problematic. Rich because they allow establishing time periods and then characterize different growth patterns[8]. Rich too because they lead to establish relationships between, on one hand, volume and forms of capital accumulation (what kinds of technical progress exist) and, on the other hand, variations in income distribution and vice versa. These approaches are problematic for two reasons: firstly, as we have noted models we will present here that back these theories have been constructed to interpret long term stability on relative shares in income distribution in industrialized countries from the 1950s to the 1980s. Problematic finally because aggregation of different variables to construct the two large categories: wages and profits, involves risked assumptions regarding particularly "mixed revenues", especially in relation to semi-industrialized economies.

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[6] Argentina's data are a remarkable exception. See Avaredo, F. (2010): "The Rich in Argentina over the Twentieth Century, 1932-2004", in Atkinson, A.B. and Piketty, T.: Top Incomes, Global Perspective, Oxford University Press, pp. 253-299.

[7] An example: in Argentina, in the third quarter of 2003, when President Kirchner access to power, the richest 10% of the population represented 39.3% of national income and the poorest 10% had half of revenue they get in the 2010 third quarter, that is to say 0.7% of national income. According to INDEC, ratio of personal incomes from the main job, between the richest 90% and the 10% poorest decreased from 10 during the fourth quarter of 2003 to 8.3 in the fourth quarter of 2010 and, between the same dates, Gini coefficient has declined from 0.471 to 0,390. When it takes into account all revenues and not more only those from the main job, the first ratio decreases from 9.7 to 7.7 and the Gini coefficient goes from 0.525 to 0.439 (INDEC, March 28. 2011). Reduction of inequalities is so undeniable; 18% over the period and this in despite of a short phase of rising inequality during 2010 second quarter, related to 2009 crisis and the inflation effects. These data may be questionable in part because of underestimation of inflation since the middle of 2007, but the trend towards reduction of inequalities is indisputable, although less pronounced. Nevertheless, inequalities remain extremely pronounced: the poorest 10% earn 216 pesos per person per month on average, that is to say 1.4% of national income and the richest 10% earn 7845 pesos, or 32.9% of national income; this is twice than earns 10% preceding. See P. Salama (2011): "Croissance et inflation en Argentina sous les mandatures Kirchner", Problèmes d'Amérique Latine n°, (1-20). For Brazil see: Dedecca, V. (2010): "As desigualidades na sociedade brasileira", Working Paper, mimeo.

[8] A growth pattern is defined by what is at the core of growth: internal market and, in this case, medium-sized social class incomes or that of lower revenue categories; external market and, in this case, primary products exports or industrial products exports, etc.

FUNCTIONAL INCOME DISTRIBUTION THESES: CONTRIBUTIONS AND LIMITS

Ricardo was one of the first economists to establish a relationship between income distribution favorable to landowners and the dynamics of economic growth. Workers are paid a salary that allows just their physical reproduction. Industrial investment leads to an increase in employment and therefore to a growing demand for subsistence goods (wheat) that finally requires the use of less fertile new lands. Wheat price is determined by the (marginal) cost of the last unit of land in production, that is to say the less fertile land. Wheat price raises so as investment grows and, as wheat price corresponds to marginal cost, landowners rent arises. Therefore, for entrepreneurs cost of labor in wheat increases but workers' purchasing power is not improved. Share of profits in total revenue falls under the combined effect of rising rents and growing wages; the final result is a tendency to stagnation. Relationship between economic growth, income distribution and labor value theory explain the strength and consistency of this analysis.

With Marx, this analysis is both more relevant and more in-depth for two essential reasons: his theory of value is not the same as that of Ricardo (labor and labor force value are different things, and from this distinction surplus value theory has born[9]). Labor can be productive or not. In this latter case, it is paid by surplus value. Unproductive workers are divided into two categories: those which are not in the capital cycle, as house staff, and those who enter in that cycle. They are *indirectly* productive workers because they make possible to reduce capital time cycles by making more efficient the phases of transforming merchandises into money and money into capital. While paid by surplus value, employment of these workers permits to obtain more surplus value.

Benefit has a triple destination: purchase of production means and payment of wages to productive workers; salaries payment of indirectly productive workers; unproductive consumption expenditure of capitalists (in this case money is spent as revenue and does not turn into capital).

Indirectly productive work has taken a considerable extent with the development of capitalism. Indirectly productive jobs are in services, including certain financial services. Categories of national accounts do not correspond to concepts defined by Marx[10]. It is therefore difficult to measure evolution of relative shares

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[9] And also the merchandise fetishism theory, which explains the fact that production social relations may not appear for what they really are, that is to say labor force exploitation relations by capitalists.

[10] One part of wages, those of indirectly productive workers, is paid on the surplus value. According to Marx's approach, these wages are registered in profits, which is not the case in national accounts. This is very probably what explains that Marx did not seek to measure income distribution evolution or the decreasing trend of profit rate, given that usual categories did not match his concepts. This is very often forgotten by quantitative Marxists. The important thing for Marx is definition of trends and analysis of forces that act on a contrary sense in a dialectical way. Certainly, one could not take into account these distinctions between productive work and indirectly productive work or even totally unproductive

of wages and profits in income from Marx's approach, taking into account the growing size of indirectly productive employment with the rise of services industry related to capital accumulation, as marketing and many financial services[11].

Trade internationalization: Overriding Kaldor in an open economy

According to Kaldor[12], share of profits in revenue depends on the rate of investment and on the difference between capitalists' saving propensity and that of workers. More investment rate increases, more the share of profits in income grows. More the gap between propensities to save of entrepreneurs and workers is important, less the share of profits in income will be bigger. This approach is Keynesian because investment does not depend on saving but on *animal spirits* and prospects for profit. Sequence is simple: increase in investment rate, under the assumption of full employment of labor and capital, drives mechanically to a rise in prices and to a fall in real wages. Then, this "forced saving" process leads to an increase in share of profits. As capitalists' saving propensity is larger than that of workers, total saving increases and equalization *ex post* saving / investment is achieved by adjusting wages[13].

Kaldor's model assumptions are those of a closed economy with full employment, both for work and production capacity. We can accept these simplified assumptions for the industrialized economies during the period 1950-1980. Nevertheless, they are not for the semi-industrialized economies. Kaldor's contribution is therefore very limited to explain income shares evolution of profits and wages in semi-industrialized economies. Full employment has a different meaning with mul-

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work, as do many quantitative Marxist economists, but then, analysis in terms of value disappears de facto and, with it, we have the abandonment of value theory and that of exploitation, for the benefit of a Sraffa type approach based on production prices, situation that generally is not considered by these economists…in failure sometimes to ask themselves this question.

[11] Apparent stability of relative shares in revenue is not contradictory with the rise of surplus value rate. Indeed, if V1 corresponds to productive workers salaries, V2 to salaries of indirectly productive workers and V3 to wages of unproductive workers, payroll is W = V1 + V2 + V3, with V2 in relative increase. If P1 is surplus value, and if we assume in a simplified way that surplus value share assigned to indirectly productive expenditure (P2) is dedicated solely to payment of wages, then P2 = V2. Consequently, surplus value rate is equal to P1/V1. Ratio profits/salaries as it appears in national accounts is then P/W with P for profits and W for wages. Then, surplus value rate corresponds to P1/V1, that is to say: (P+P2+P3) / (W-V2-V3) where P3 is the surplus value spent in an unproductive way. In conclusion, possible stability of profits/salaries relationship is not in contradiction with the increase in surplus value rate.

[12] See Kaldor, N. (1955-56), "Alternative theories of distribution," Review of Economic Studies 23 (2): 83-100; (1957), "A model of economic growth", Economic Journal 67 (268): 591-624; and (1961), "Capital accumulation and economic growth", in Lutz, F. and D. Hague (eds.): The theory of capital, St Martin's Press.

[13] Kaldor introduced in other models technical progress, population growth, and workers' standard of living improvement. We chose to deal with technical progress and distributive conflict based on further works (see above).

tiplication of employment modalities (formal, informal, partial and full time) and mechanisms leading to increasing wages are different. Relationship between investment rate, propensities to save, and share of profits in national income, as defined by Kaldor, does not occur in Latin-American semi-industrialized economies. In Latin America investment rate is relatively low. Share of profits in income should be low, all things being equal, but it is very important. Overall propensity to save is low and also that of entrepreneurs[14]. Difference between propensities to save of entrepreneurs and workers is therefore not as important as in industrialized countries. Consequently, its effect on share of profits in income, for a given investment rate, is not considerable.

However, external criticism of some of these assumptions enriches analysis presented here. So, we chose to reject closed economy hypothesis and to analyze effects of trade and financial globalization on income distribution in Latin-American emerging economies, characterized by higher wages than those of developing Asian economies.

Globalization is the result of a long process that has affected all economies in the world. Growing internationalization of economic activities has resulted in a widespread expansion of exchanges, more or less intense and regular according to different countries. This tendency has been reinforced since the 1990s.

Emerging Latin-American economies suffer strong competition from Asian countries' slight sophisticated products and from industrial countries' more sophisticated products. Gap in wages between Latin-American countries and Asian emerging economies being greater than productivity gap have conducted to a strong competitiveness from emerging Asian economies. Wage differential between these Latin-American economies and industrialized countries is not sufficiently high to offset their productivity gap, consequently competitiveness plays to their detriment. Competitiveness constraint increases when the exchange rate appreciates in relation to dollar. This is the case in Latin America with a few exceptions, but this is not the case in Asian countries in recent years[15]. When the exchange rate appreciates, wage

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[14] Share of profits spent in an unproductive way is indeed important, whether as dividends converted into consumption expenditures or as hedge purchases of financial securities.

[15] Among the ten countries that have experienced the highest appreciation of their national currency from June 2009 to May 2011, five were Latin-American ones, and neither was Asian. See Albrieu, R. (2011): "La enfermedad brasileña y sus causas", Working Paper, (1-8). Trend to appreciation of national currencies has been reinforced in the aftermath of 2008-2009 crises. High interest rates compared to those in industrialized countries, or even the prospects of profit increase due to resumption of growth in emerging economies, attract foreign capital: portfolio investment and direct foreign investment, and fuel the rise of national currency. It improves capital profitability in dollars and is an additional attraction factor, increasing national currencies course against the dollar. There is a wide littérature on this matter; see Bresser-Pereira, L. C. (2009): Mondialisation et compétition, pourquoi certaines économies émergents réussissent et d'autres non, Paris, Editions La Découverte. This tendency to appreciation of currencies when capital is flocking from abroad and/or growing of trade balance surpluses with the rise of raw materials prices, can be counteracted in two ways: first is to tax inflows and outflows of capital within an obligatory time presence in order to avoid strictly speculative inflows; second is to play on

rate in dollars increases even though it would be constant in local currency. The result is an inability on the part of these countries to obtain a positive trade balance on industrial products; these are the cases of Argentina, Brazil since 2006, and Mexico. Additionally, in some cases a process of "early" deindustrialization is observed, as is the case of Brazil (see Boxed Text 2). In these conditions, this constraint of specific competitiveness is a powerful brake on wages increasing. If they increase in real terms, this is done in detriment of trade balance. This is which explains that real wages growth has been lower than that of labor productivity. This gap in the evolution of productivity and wages represents a 1990s characteristic trait.

Finally, businesses financialization develops with financial globalization. Its effects are being felt on the evolution of industrial salaries and on that of profits destined for investment. Financialization implies requirements of increased dividends, high profitability constraints imposed by financial sector and, when interest rates are high, an important business debt service. Then, growth of share of financial profits demands that profits share increases, so that share reserved for investors can be maintained. It explains the decline of share of wages in value added and the difficulty for increasing investment rate. Then, financial constraint reduces share of wages in value added, and that limits their growth in absolute terms. In other words, probability that fruits of technological progress are being primarily absorbed by profits and in a lesser proportion for wages is high, conducting to a growing gap between wages and productivity trends.

Therefore, there is a double constraint: rising trade competition and higher financialization, which explains the growing gap between trends of wages and productivity in the 1990s. This double constraint has not disappeared in the 2000s; nevertheless, the resulting divergence has ceased in favor of a parallelism in the evolution of wages and productivity. This explanation, without being incorrect, is therefore insufficient except to consider that globalization would have decreased, which is not the case.

The influence of technical progress and the contributions of J. Robinson

Although conceived at a high level of abstraction, without considering specificities of industrialized underdevelopment, Joan Robinson's approach provides important insights on the relationship between the technical progress bias and income distribution[16].

Starting from a sectorial analysis, she characterizes technical progress as it takes place in the sector of production goods or in the consumer goods sector. Technical progress is said *capital saving* when the increase in labor productivity takes place mainly in the production goods sector. *Real capital ratio* (that is to say

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monetary policy instruments, emphasizing sterilization of national currency issued to counterbalance capital inflows, by means of compulsory reserves and the issuance of specific bonds.

[16] See Robinson, J. (1956): The Accumulation of Capital, McMillan; it also can be referred to Salama, P. (1972, 1976): O processo de subdesenvolvimento, Vozes.

ratio between capital value and wages) diminishes. The same machines, produced with more labor productivity, decrease in value.

In monopolistic competition, entrepreneurs deal with the choice between having a Malthusian behavior, or prevent the entry of other firms. In the hypothesis of a Malthusian behavior, entrepreneurs buy as much equipment as before but with a lower value (investment rate in physical terms remains the same but it diminishes in value); employment in the sector producing production assets decreases. This employment decrease is explained by an increase in productivity and by the non expansion of market opportunities. Capital efficiency increases, since for a same physical amount of capital equipment, its value declines. This may be unfavorable to wages and favorable to profits. This behavior is inherently unstable because it encourages the entry of new entrepreneurs attracted by the importance of profits. Also, Robinson considers that entrepreneurs abandoning their Malthusian behavior seek to have more machines whose unit value is lower; then their investment rate remains the same in value. Therefore, consumer goods sector needs more labor and capital goods sector does not dismiss anymore. The result is a pressure on employment which may be favorable to the employees and unfavorable to entrepreneurs. Evolution of wages can be faster than that of productivity. This situation encourages entrepreneurs to maintain their markup rates by raising prices, which reduces real wages, or to increase productivity of labor in the sector of consumer goods. In this case, technical progress bias is named of type *capital using*[17]. Such a choice leads to a reduction of the workforce engaged in the sector of consumer goods. Pressure on employment decreases and the increase in wages may be lesser than that of productivity.

Appreciation of currency effects can be compared to those of *capital saving* technical progress. Indeed, imports become cheaper and they are composed mainly by capital equipment and intermediate goods. Unit value of imported capital goods goes down and actually modifies the structure of relative prices (equipment goods/consumer goods). This alteration in relative prices is similar to the effects of *capital saving* technical progress, as it is defined by Joan Robinson. Capital efficiency grows. Entrepreneurs abandon their Malthusian behavior and increase their investment rate in physical terms while keeping it in value. Pressure on employment increases, which creates a favorable situation for an increase in wages, unless entrepreneurs seek to increase their markup rate by means of prices growth, in which case share of wages declines relatively to that of profits. Excepting this case, appreciation of national currency would be one of the causes of share of wages increase in value added. This explanation is attractive but it suffers from many flaws.

It is not certain that appreciation of the currency enhances capital efficiency and leads to an increase of share of wages in income. Indeed, appreciation of exchange rate has also another effect which can counteract, totally or in part, the positive effect on capital valorization. Wage expressed in dollars increases. And this effect is especially important because production of goods is labor intensive. Unit

[17] Technical progress takes place mainly in the sector producing consumer goods. It expresses itself especially by many organizational innovations, primarily in the working process organization.

cost of labor suffers the opposing influences of productivity growth and a growing cost of labor. Competitiveness decreases more or less strongly according to growth of labor cost. What is earned on capital value may be lost on wages[18]. Such a situation can lead to an "*early" deindustrialization* (see Boxed Text 2) and to a decline in industrial employment[19].

Boxed Text 2 – "Early" deindustrialization

Share of industry in GDP that of manufacturing jobs in total employment, generally declines when income per capita reaches 8000 to 9000 dollars at 1986 constant prices, recalls Ricupero[20]. When relative weight of manufacturing industry declines while per capita income is less than half of these figures, one can advance the idea of "early" deindustrialization. This is what happens in many countries of Latin America. This is the case of Brazil, dominant power of this region of American continent. This was the case of Argentina from 1976 to 2003, since that country knows a process of re-industrialization. This is not the case of Mexico, due to the presence of the assembling industries.

Deindustrialization in Brazil is not absolute: industry knows a positive growth rate. For an index of 100 in 2002, processing industry reached a 121.5 index in the first quarter of 2011[21]. Deindustrialization of Brazil is relative at national level and at global level. At national level, participation of processing industry in GDP was of 16.8% in 1996 and of 15.8% in 2010. In the same dates that of primary activities was of 5.5% and of 5.8%; and for the extractive industries was of 0.9% and of 2.5% (source IBGE). If we take an index of 100 in 2004 for processing industry in Brazil, in the world, and in the emerging countries, relationship between these three indexes is equal to 1 in 2004, evolving unfavorably for Brazil: between Brazil and the world this relation is of 0.98 in 2010, and of 0.75 between Brazil and the emerging countries on the same date. Weight of Brazilian industry in GDP decreases slightly, below global average and falls in relation to that of emerging economies in few years. Evolutions are similar with respect to weight of manufacturing exports in total exports. Between the same dates, relationship goes from 1 in 2004 to 0.74 in 2010 between Brazil

[18] This situation appears especially when industries with low capital intensity predominate.

[19] When nothing is done against the appreciation of the national currency, there are two possibilities to limit the negative effects on profit rate and avoid threatening deindustrialization: 1 / development of capital-intensive sectors. In this case, negative effect of increase in wages expressed in dollars is limited and the capital saving effect outweighs the salary effect; 2 / protection of domestic industry through subventions policy and low interest rates policy directed to targeted sectors.

[20] Ricupero, R. (2011): "Desindustrializaçao precoce: futuro o presente do Brasil", notes from the UNCTAD Report (2003):Trade and Development, especially chapters 4, 5 and 6.

[21] Source: Carta IEDI n. 467 — Produção e Balança Comercial: A Indústria de Transformação Brasileira por Intensidade Tecnológica no Primeiro Trimestre de 2011 (1-14).

and the world. Participation of Brazil's manufacturing exports in its total exports goes from 56% in 2005 to 40% in 2010; that of semi-manufactured goods remains stable at 14% and increases considerably for primary products (raw materials): 30% in 2005 and 46% in 2010. Brazil's processing industry trade balance surplus decreased strongly from 2005 (31.9 billion dollars) to 2007 (19.5 billion dollars). As early as 2008 a deficit of 6.2 billion dollars arises. Later, this deficit increases considerably up to 33.4 billion dollars in 2010[22].

When considering quarterly deficits instead of annual deficits, and processing industry is analyzed according to technological intensity of its activities, it can be observed that, excepting low technology products, all other products are in deficit.

With globalization, less profitable firms have tended to disappear and in the 1990s an "import de-substitution" process has taken place; whole segments of production lines were replaced by imports. This process took place more or less vigorously depending on the country; in Argentina more than in Mexico or Brazil. Appreciation of national currency precipitated this movement in Brazil and Mexico, while maintenance of a depreciated currency protected Argentina industry who knew a new trend to substitution of some of its imports. For Brazil, appreciation of its national currency and liberalization of trade have deeply affected its industry and its export capabilities. Branches that resist the more are those with larger scale economies and those related to natural resources; the other branches tend to decline including those with high "research-development" coefficients; productivity levels attained cannot counterbalance the effects of national currency appreciation and those of trade liberalization.

We cannot deduce from currency appreciation an increase in share of wages in income. Maintenance of share of wages in income, or even its improvement during the 2000's is then explained by other factors. Labor market is changing: employment conditions and wages determinants are no longer the same. Less informal jobs, increase in minimum wage beyond productivity and wage bargaining by branches explain in part increase of share of wages in revenue.

Influence of markup rate and the contributions of analyses in terms of distributive conflict in Kaleckian approaches

In Kaleckian analyses, entrepreneurs intervene in two markets: that of goods where they fix prices, and that of labor where they purchase labor force. Workers intervene, them, only in labor market. Offer is first (more specifically investment), demand is in second place. Market can then correct prices if demand is insufficient

[22] These data are taken from Pitres de Souza, F. E. (2011): "Desindustriazaçao com pleno emprego: que milagre é esse?", Estudos e pesquisas n ° 398, Fórum Nacional (1-18). Originally they are from FUCEX, OBU and WTO.

in relation to supply and vice versa. Thus, fixing of prices reflects *the strategy* of enterprises: it depends on their monopoly power[23] and aims to strengthen this power in a given time horizon, *via* investment permitted by the wanted markup rate. Specifically, amount of profits depends on monopoly power, production capacity using degree, direct production costs (wages and raw materials) and indirect costs (interest rate and payment of dividends).

In the Kaleckian approach[24] inflation rate expresses the discrepancy between investment rate wanted by the entrepreneurs and real wage rate that they must pay to workers. Inflation rate also expresses the divergence between the existing real wage and that desired by workers. According to Ramos, "the role of inflation is to make compatible, *ex-post,* the income distribution that, *ex ante*, did not permit equilibrium in goods market"[25]. Distributive conflict is then a key element to understand at the same time economic growth, price formation and income distribution.

Boxed Text 3 – From Kalecki to Steindl and Dutt

Regrouping economic activities into three sections: one producing consumption goods intended for workers which devote all of their wages to consumption; another section producing luxury goods destined for consumption of entrepreneurs and, finally, a section producing capital equipment intended for investment, Kalecki showed that production of goods for workers' consumption is entirely determined by expenditure decisions of entrepreneurs on consumption and investment, taken during the previous period. Specifically, in a closed economy without public sector, under the assumption that workers consume all of their salary, and that entrepreneurs seek a markup rate calculated on the basis of average variable costs, he can show that "workers spend what they earn and capitalists earn what they spend". Then, in a dynamic approach income distribution depends on evolution of demand, costs structure and rules for price fixing. Search of production capacity surplus aiming to set

[23] According to Kalecki, monopoly degree depends on the firm's size, demand curve elasticity, barriers to entry, unions' power and thus on distributive conflict; finally, it also depends on economic cycle. It can be considered that during the cycle phase of expansion, there is a favorable situation for workers and vice versa.

[24] See Kalecki, M. (1938a): "The determinants of distribution of the national income, Econometrica 6(2): 97-112; (1971): Selected essays on the dynamics of the capitalist economy, 1933-1970, Cambridge University Press.

[25] Ramos, C. A. (1992): Crise et redistribution des revenus, l'expérience brésilienne pendant les années quatre-vingt, doctoral thesis supported under the direction of Salama, P., University of Paris XIII, mimeographed document (p.227). See also Salama, P. and Valier, J. (1994): Pauvretés et inégalités dans le tiers monde, Paris, Ed. La Découverte, chapter 2, and Salama, P. (2006): Le défi des inégalités; Amérique latine/Asie, une comparaison économique, Paris, Ed. La Découverte, chapter 1. These last two books have been translated into Portuguese (Nobel, Perspectiva) and Spanish (Siglo XXI).

up a "strategic reserve" facing competition, also explains in part distribution of revenues between profits and salaries.

Approach developed by Steindl (1952)[26] is similar to that of Kalecki, but insisting probably more than Kalecki on the strategic character of production capacities. In market goods functioning under oligopolistic conditions, companies can obtain higher profits without any increase in demand. Lower growth of accumulation is then compatible with an unchanged markup rate and with a reduction in capital utilization rate, this latter closer to that wanted by these firms. As a result, we have an increase in underemployment and an excess of production capacity; thus a lower incentive to invest. A slowing down of capital accumulation growth can lead to an absolute decline by a self-sustained accumulative movement. This movement constitutes a tendency to stagnation.

Dutt's model (1984)[27] demonstrates the role of a change in income distribution on economic growth rate. He uses risked assumptions[28], of which some are subsequently removed: investment depends at the same time on entrepreneurship spirit (animal spirits) (a), rate of expected profit (r) — more is high, more investment will be important — and finally, as Steindl, on the production capacity utilization rate measured by the ratio between actual production and that which could be obtained with a total using of production capacity. As in Kalecki's model, entrepreneurs seek to have overcapacity of production to more easily meet rapid changes in demand. But when actual idle production capacities are higher than those wanted, this differential influences investment decisions. Price depends on markup rate applied on direct costs, here essentially wages. By combining different simple equations, he can show that profit rate varies in function of production level, given a determined markup rate and capital stock.

Dutt shows that an improvement on income distribution favoring workers produces higher growth and vice versa. More is the markup rate decline less uneven is income distribution for workers, economic growth is higher and vice versa[29].

According to this thesis, very high share of profits in value added and share of wages relative weakness could explain weak growth of Latin-American economies since thirty years ago. Improvement on share of wages in income

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[26] Steindl, J. (1952): Maturity and Stagnation in American Capitalism, Oxford, Ed. Basil Blackwell.

[27] Dutt, A. K. (1984): "Stagnation, Income Distribution and Monopoly Power", Cambridge Journal of Economics, no. 8.

[28] There is only one good, which is at the same time consumption good and capital asset. This so-called Ricardian hypothesis allows avoiding the problem of capital measurement: neither State nor technical progress.

[29] Indeed, when markup rate grows and assuming that workers' savings are void, real wages decrease and idle production capacity increases, leading to a reduction in investment and profit rates, strengthening production trend to stagnation.

distribution since the beginning of the 2000s would explain the observed economic recovery. But, in spite of its attractive character this model suffers from several limitations related to risked assumptions on which it is based (no economic opening to abroad, no State, and no technical progress in Dutt).

Industry's average productivity is small compared to that observed in industrialized countries but also to that of exporting raw materials sector. Dispersion on industry's levels of productivity is particularly important, higher than that observed in industrialized countries. Industrial structure is deeply heterogeneous. With trade liberalization, increased competitiveness constraints and exchange rates appreciation, industry's average level of productivity tends to grow but heterogeneity remains; certain industries attain a high level of average productivity, and those whose productivity levels are too low disappear. Nevertheless, there is nothing to indicate that convergence of productivity levels occurs. Most threatened firms by international competition and by national currency appreciation are seeking at the same time protection on the part of the government and, in case of failure, they compress their markup rate to withstand international competition. Those who cannot face this competition disappear. In general, and excepting certain sectors, markup rates are lower than they were before trade liberalization.

Three other variables play for a reduction in markup rate: the end of high inflation, access much easier than in the past to credit, and evolution of distributive conflict.

We saw that the end of high inflation in the 1990s explains the loss of influence of this variable on real wages. Purchasing power of workers has been less cut off by rising prices that it could be in the past with high inflation, including if indexation mechanisms of wages to prices are established. End of high inflation also modified entrepreneurs' behavior: market is more readable, relative prices are more reliable indicators and research of a high markup rate to prevent inherent risk derived from market dysfunctions in a period of high inflation is no longer necessary.

In relation to GDP, credit level for enterprises is low compared to that in industrialized countries or in Asian emerging economies. But it grows fast. Now we can see that if this level is low, investment funding will require significant markups and vice versa. Said otherwise, for the same investment rate, average markup rate will be more important and access to credit will be low and vice versa. Easier access to credit is therefore a favorable factor in order to reduce markup rates, unless access to credit faces very high interest rates, which in many sectors is no longer the case, including Brazil.

Finally, distributive conflict is changing in the 2000s. Decline in unemployment rate has partially moved social forces correlation in favor of workers, particularly in favor of those whose qualifications are strongly requested by entrepreneurs. Governments' decision for increasing minimum wage beyond average productivity takes part of the increase in average wage. Wage negotiations by branches promote increases in wages especially in Argentina.

CONCLUSION

During the 1990s causes of degradation of share of wages in income seem obvious, but maintenance or even improvement of wages share in revenues in the 2000's seems a "surprise", a "reproach to economic theory". Openness to international trade has not decreased; finance is always present and weighs heavily on share of wages as well as on the fraction of profits destined to investment. Nevertheless, evolution of shares in income has been inverted. This observation does not mean that the influence of these factors has declined but that other factors are involved in the opposite direction. Economic, social and political context has changed and has led to a change in entrepreneurial behavior with regard to markup rates and especially to an institutional evolution of distributive conflict. Contributions of the various theories outlined above are important but it is not sufficient to explain evolution of relative shares in revenues. We need to reconsider the role of the State in the economy. Its role is not confined to react to "market disorders" when they emerge. The State is *in* the market. Market disorders obey too to its active presence and its interventions on it, but also the State is present in the overriding of these disorders. Judge and part at a time, role of the State on labor market can be decisive. It was determinant in a certain degree during the 2000s which in part explains evolution of relative shares in income. However, apparent stability in relative shares in income, or even the slight increase in wages share, were carried out parting from a depressed level of economic activity, legacy of the 1980s and the 1990s, as if they had reached a floor, a "trough" difficult to cross. "New Developmentalism" and economic growth based on internal market meet here their limits.