



Brazil's Wage Gap Charts

Manufacturing production-line wages

Wage gap charts for Brazil vis-à-vis selected developed and “emerging” economies, with available wage and PPP data (1996-2009)

(last report for production workers to be published – see definitions and sources at the end)

Wage gap charts for Brazil vis-à-vis selected developed and “emerging” economies, with available wage and PPP data (1996-2009).

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The Argument for Wage Equalisation Using Purchasing Power Parities (PPPs)

▪ Classic Problem Scenario

- With market liberalisation, MNCs sell their products in both the host countries and in all other markets where they are active, including their home country, at the same or at a very similar sales price,
- They achieve maximum profitability when the manufacturing process in their developing countries' operations is at par in quality and production efficiency with the standards used in their home operations but their cost of labour is dramatically lower,
- The MNCs' markets and their manufacturing and marketing operations are *globalised* but their labour costs remain strategically very low in order to achieve maximum competitiveness and shareholder value at the expense of the South's workers,
- The resulting situation is one where MNCs get all the benefit. Sometimes the salaries that they pay are higher than the legal minimum wage in the host country. Yet, these wages still keep workers in dire poverty. A minimum wage does not make a living wage even in the most developed economies,
- What has occurred, with market globalisation, is the dramatic widening of the gap between wages in the North and in the South,
- While the standard of living of a worker in the North provides the basic means to make a living and afford a basic standard of comfort, a worker working for the same company, doing the exact same job with the same level of quality and efficiency, lives in a shanty town in a cardboard house with no sewage, water and legal electricity,
- In this way, the huge differential in labour costs is added to the profit margin, keeping the part (the surplus value) that should have provided the worker with an equivalent standard of living to that enjoyed by the same workers in the North. This surplus value from the labour factor is the part rightfully belonging to workers, and that they should have received from inception, as their fair share of the income resulting from the economic activity.

The Argument for Wage Equalisation

Using Purchasing Power Parities (PPPs)

▪ The Argument

- In true democracy the purpose of all governments is to procure the welfare of every rank of society, especially of the dispossessed, with the only end of all having access to a dignified life in an ethos where the end of democratic societies is the social good and not the market. The market is just one vehicle to generate material wellbeing,
- In this ethos, and with markets globalised, workers performing the same or an equivalent job for the same business entity, in the generation of products and services that this entity markets at global prices in the global market, must enjoy an equivalent remuneration,
- This equivalent remuneration is considered a living wage, which is a human right,
- A living wage provides workers in the South with the same ability to fulfil their needs, in terms of food, housing, clothing, healthcare, education, transportation, savings and even leisure, as that enjoyed by equivalent workers in the North, which we define in terms of the purchasing power parities (PPP) as defined by the World Bank and the OECD,
- The definition of a living wage of The Jus Semper Global Alliance is as follows: *A living wage is that which, using the same logic of ILO's Convention 100, awards "equal pay for work of equal value" between North and South in PPPs terms,*
- The premise is that workers must earn equal pay for equal work in terms of material quality of life for obvious reasons of social justice, but also, and equally important, for reasons of long-term global economic, environmental and social sustainability.

The Argument for Wage Equalisation Using Purchasing Power Parities (PPPs)

■ The Argument

- The argument of an equivalent living wage is anchored on two criteria:
 - ➔ Article 23 of the UN Universal Declaration of Human Rights, on the following points:
 - a. Everyone, without any discrimination, has the right to equal pay for equal work,
 - b. Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.
 - ➔ ILO's Convention 100 of "equal pay for work of equal value", which is applied for gender equality, but applied in this case to North-South equality, using PPPs as the mechanism,
- The proposal is to make workers in the South earn living wages at par with those of the First World in terms of PPPs in the course of a generation (thirty years),
- There will not be any real progress in the true sustainability of people and planet –reversing environmental degradation and significantly reducing poverty– if there is no sustained growth, in that period, in the South's quality of life, through the gradual closing of the North –South wage gap; attacking, in this way, one of the main causes of poverty, and pursuing concurrently sustainable development –rationally reducing consumption in the North and rationally increasing it to dignified levels in the South, thus reducing our ecological footprint on the planet,
- Just as the International Labour Organisation's Decent Work Agenda states, the decent work concept has led to an international consensus that productive employment and decent work are key elements to achieving poverty reduction,
- The material quality of life in Jus Semper's The Living Wages North and South Initiative (TLWNSI) is defined in terms of purchasing power, so that equal pay occurs when purchasing power is equal,
- Purchasing power is determined using purchasing power parities (PPPs),
- Purchasing power parities (PPPs) are the rates of currency conversion that eliminate the differences in price levels between countries.

The Argument for Wage Equalisation Using Purchasing Power Parities (PPPs)

▪ Concept of Living Wage Using PPPs

- The concept of a living wage using PPPs is straightforward. To determine real wages in terms of purchasing power of any country in question, the PPPs of this country are applied to nominal wages. These are the real wages for each country,
- Purchasing power parities reflect the amount in dollars required in a given country to have the same purchasing power that \$1 U.S. dollar has in the United States; e.g.: if the PPP index in one country is 69, then \$0,69 dollars are required in that country to buy the same that \$1 dollar buys in the U.S.; thus, the cost of living is lower. If the PPP were to be higher than 100, say 120, then \$1,20 is required in that country to buy the same that \$1 dollar buys in the U.S.; the cost of living is, thus, higher,
- To calculate a living wage, the real wage of a specific category of U.S. workers is used as the benchmark, and the PPPs of a country in question is then applied to the U.S. wage,
- This provides the equivalent living wage that a worker in the country in question should be earning in order to be at par in terms of purchasing power to the material quality of life enjoyed by the equivalent U.S. worker. This is the equalised wage in terms of purchasing power,
- In this way, the comparison between the actual real wage of the country in question exposes the gap, in real terms, between the current real wage of the worker of the country in question and the living wage it should be earning, in order to be equally compensated in terms of PPPs,
- In practice, since the PPPs vary annually, due to the dynamics of economic forces, the pace of the gradual Equalisation of wages, through small real-wage increases, needs to be reviewed annually.
- It must be pointed out that this rationale does not even take into consideration that the neoliberal paradigm of staunch support for supply-side economics has consistently depressed for three decades the purchasing power of real wages in the U.S., the benchmark country for wage equalisation. This has been attempted to be resolved by women joining the work force and, fictitiously, through over indebtedness, which eventually has brought us down to the great implosion of capitalism in 2008. In this way, this equalisation analysis is made in the context of a course set forth during three decades of global depression of real wages in favour of international financial capital.

The Argument for Wage Equalisation Using Purchasing Power Parities (PPPs)

A Classic Example in 2009

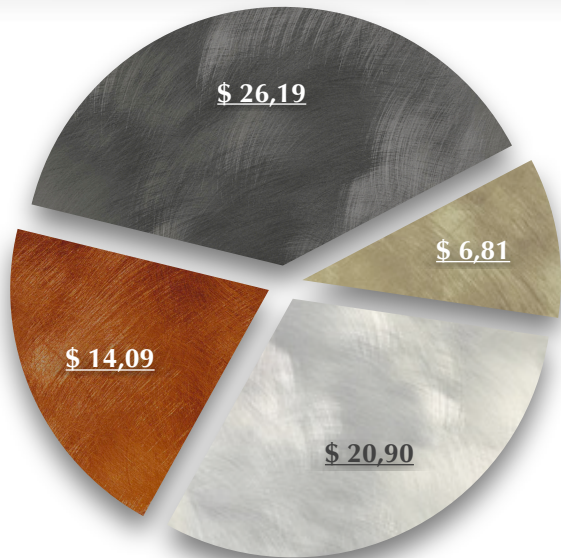
- Equivalent manufacturing workers in Mexico and Brazil earn only 23% and 33%, respectively, of what they should be making in order to be compensated at par with their U.S. counterparts in terms of purchasing power,
- U.S. Workers earn \$26,19/hour whilst Mexican and Brazilian workers earn only \$3,81/hour and \$6,81/hour, respectively,
- Since costs of living in PPPs terms in Mexico and Brazil are 64¢ and 80¢, respectively, for each \$1 U.S. dollar, equivalent Mexican and Brazilian manufacturing workers should be earning instead \$16,70/hour and \$20,90/hour, respectively, in order to enjoy equal purchasing power compensation,
- The difference is the wage gap that employers perversely keep to increase profits,
- Canada, in contrast has a small gap with its U.S. counterparts, since its nominal wage (\$26,40) is 90% of the equivalent wage (\$29,47) needed to be at par, with a PPP of \$1,13 per each \$1 U.S. dollar.

Nominal Wage, Real Wage and Wage Equalisation for Manufacturing Workers by Using Purchase Power Parities (PPPs) Benchmark					
	Nominal Hourly	PPP	PPP	Equalised Nominal Hourly	Equalisation
2009	<u>Wage</u>	<u>2009</u>	<u>Real Wage</u>	<u>Wage</u>	<u>Index</u>
	United States	\$ 26,19	100	\$ 26,19	100
Canada	\$ 26,40	113	\$ 23,46	\$ 29,47	90
	101%		90%	113%	
Mexico	\$ 3,81	64	\$ 5,98	\$ 16,70	23
	15%		23%	64%	
Brazil	\$ 6,81	80	\$ 8,54	\$ 20,90	33
	26%		33%	80%	
Sources:					
U.S. Department of Labour, Bureau of Labor Statistics, March 2011.					
Data base of World Bank's World Development Indicators, 1975-2010, (GNI & GNI PPP, Atlas method)					

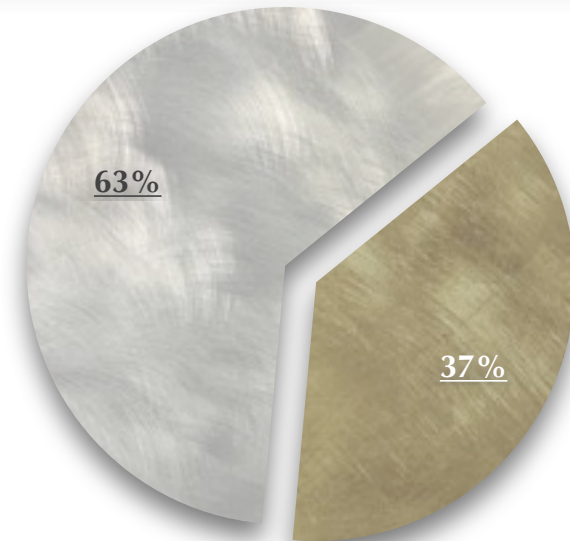
The Argument for Wage Equalisation Using Purchasing Power Parities (PPPs)

▪ A Classic Example in 2009

- From a graphic perspective, the first pie chart shows the U.S. real wage for production-line workers in the manufacturing sector, which is always the benchmark. In the case of Brazil, the pie chart exhibits the nominal wage earned, the nominal wage equalised with the U.S. wage –always in purchasing power parity terms, and the difference retained inappropriately (deliberately).
- The nominal equalised wage of \$20,90 is what the Brazilian production-line worker should earn to be equally remunerated (in purchasing power terms) for performing an equivalent task. Yet, the worker only earns \$6,81 instead of \$20,90, thus the employer deliberately retains \$14,09, which constitutes the greater part of the surplus value that legitimately belongs to the Brazilian worker, according to TLWNSI’s concept.
- In this way, the second pie chart shows how the employer retains inappropriately 67% of labour’s surplus value, or labour share of income, by only allocating to the worker 33% of what he/she is entitled to.



- Nominal wage earned
- Equalised nominal wage
- Difference inappropriately retained by the employer
- U.S. equivalent wage (benchmark for equalisation)



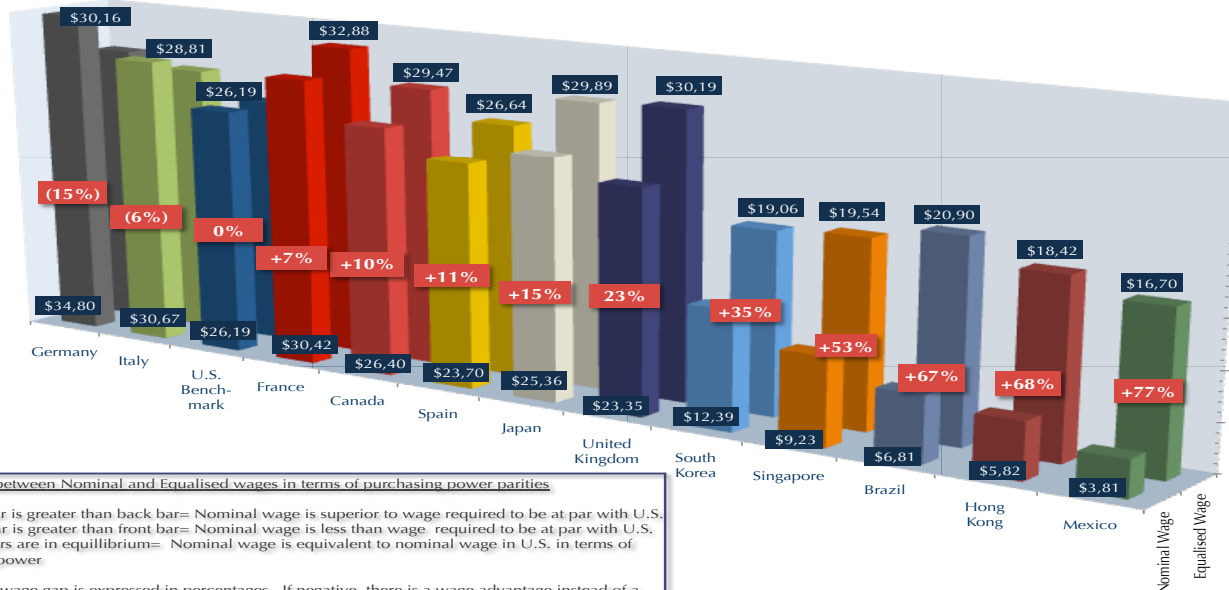
- Nominal wage earned
- Difference inappropriately retained by the employer

Sources: WB, U.S. BLS, OECD – © The Jus Semper Global Alliance

Wage gap comparisons for selected economies

- Since 2008 Japan began to experience a strong revaluation of the yen with little increase in the PPP cost of living. This enabled Japan to record in 2009 its best living wage equalisation level ever (15% living-wage gap). In contrast, since 2007, most countries experienced substantial currency devaluations, strong PPP growth or real wage increases below the growth of U.S. wages. Thus, except for Italy and Hong Kong, which managed to sustain their previous equalisation, all the other countries increased their hourly compensation costs gaps with the U.S. in 2009. For further detail see table T4 in page 22.
- Always relative to 2007, South Korea, the UK and Mexico experienced strong devaluations of their currencies in 2009 and meaningful decreases in their PPP costs of living, but devaluations were deep enough to offset all other factors and, consequently, increase their wage gaps. Canada performed worse for it was the only country in this assessment with a decrease in nominal wages in domestic currency. In this way, its equalisation index not only dropped substantially, but –after decades of equalisation surpluses– generated a gap with equivalent U.S. wages that had not existed since the late 1980s. The four countries recorded the worst performance of the twelve economies in this analysis, with Mexico getting close to its nadir (1995). For further detail see table T4 in page 22.
- In the Euro Area real wages have barely moved since 2007. Thus, Germany, France and Spain lose some ground in their equalisation trends. Only Italy managed to increase real wages enough to maintain its previous equalisation index. For further detail see table T4 in page 22.
- Brazil experienced a huge increase of 25%, since 2007, in its PPP cost of living. Consequently, real wages dropped and, thus, its living-wage gap increased four points from 63 to 67%. Singapore experienced a similar behaviour, which increased its gap from 50 to 53. Hong Kong barely managed to leave its living-wage gap at 32. For further detail see table T4 in page 22.

2009 gaps between nominal and equalised wages with U.S. wage using PPPs (Hourly manufacturing compensation costs in U.S. Dollars)



Wage Gap between Nominal and Equalised wages in terms of purchasing power parities.

- 1) If front bar is greater than back bar= Nominal wage is superior to wage required to be at par with U.S.
- 2) If back bar is greater than front bar= Nominal wage is less than wage required to be at par with U.S.
- 3) If both bars are in equilibrium= Nominal wage is equivalent to nominal wage in U.S. in terms of purchasing power

(The size of wage gap is expressed in percentages. If negative, there is a wage advantage instead of a wage gap, for wage is superior to wage required to be at par with U.S. Comparisons are in terms of hourly compensation costs as explained in T4.)

Sources:

– Data base of World Bank's World Development Indicators, 1975-2010, (GNI & GNI PPP, Atlas method)
X International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing November 2009.
U.S. Department of Labour, Bureau of Labour Statistics

The Jus Semper Global Alliance © 2011

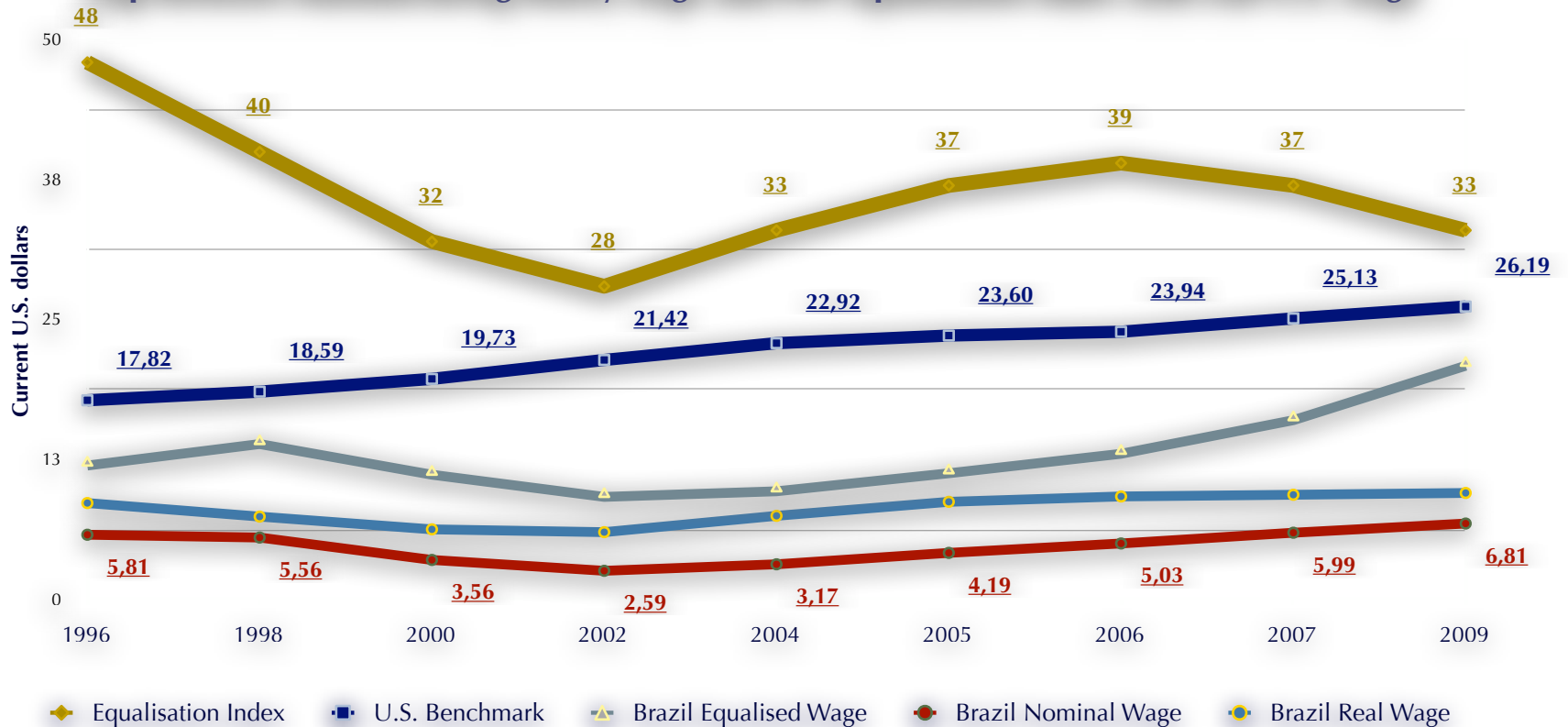
Main features of the manufacturing wage situation in Brazil

Brazil's recovery of production-line manufacturing wages recedes since 2006. Yet, there are plans for a strong long-term equalisation.

- Since 1996 –the first year with comparable manufacturing wage data available– real wages lose 42% up to 2002 –relative to their PPP equalisation with the U.S. The cost of living drops with the 1999 crisis but wages do even more; thus real wages collapse during the period (For further detail see table T4 in page 24).
- The gap between nominal and PPP equalised wages deepens, growing from 52% to 72% between 1996 and 2002. That is, although the PPP cost of living drops 35,8% –from 67¢ to 43¢ against \$1 in the U.S.– nominal wages drop 55,4%. Thus, the true value of Brazilian PPP wages (relative to their U.S. counterparts) drops from a 48 to a 28 index, for wages drop even more than does the cost of living –namely, real wages fall. (For further detail see table T4 in page 24).
- Nonetheless, between 2003 and 2006 Brazil records a strong wage recovery. This increases equalisation by 39% (from a 28 to a 39 index), due to strong growth of nominal wages, averaging annually 23,5% between 2002 and 2006, for a total growth of 94% during the period, quite above the growth in the PPP cost of living of 25,6% during the same interval. In this way, real wages recover 52,8% in that course of time.
- Between 2007 and 2009, however, the cost of living increases 48%, for a PPP cost of living of 79,8¢ in 2009 against \$1 in the U.S. vis-à-vis 54¢ in 2006. In contrast, during the same period, nominal wages grow 35,4%, and, thus, real wages drop 7,5% whilst U.S. real wages grow 9,4%. The combined effect of these variables forces the equalised wage to increase 60,3% and, thus, the equalisation index to drop from 39 in 2006 to 33 in 2009, a 15% decrease. (For further detail see table T4 in page 24).
- Nevertheless, the future of Brazil's wage policy is being redefined by clearly establishing a commitment to not only recover its 1996 wage level but to equalise wages with equivalent wages in the U.S. This shows strong affinity with TLWNSI's concept –of the gradual closing of wage gaps through annual real wage increments (increments of several points over inflation)– for a system of annual real minimum wage increases has already been implemented beginning in 2010, which goes until 2023. This plan is described in the following section as well as a projection to close the wage gap for manufacturing wages in the span of thirty years, based on Brazil's minimum wage appreciation policy.

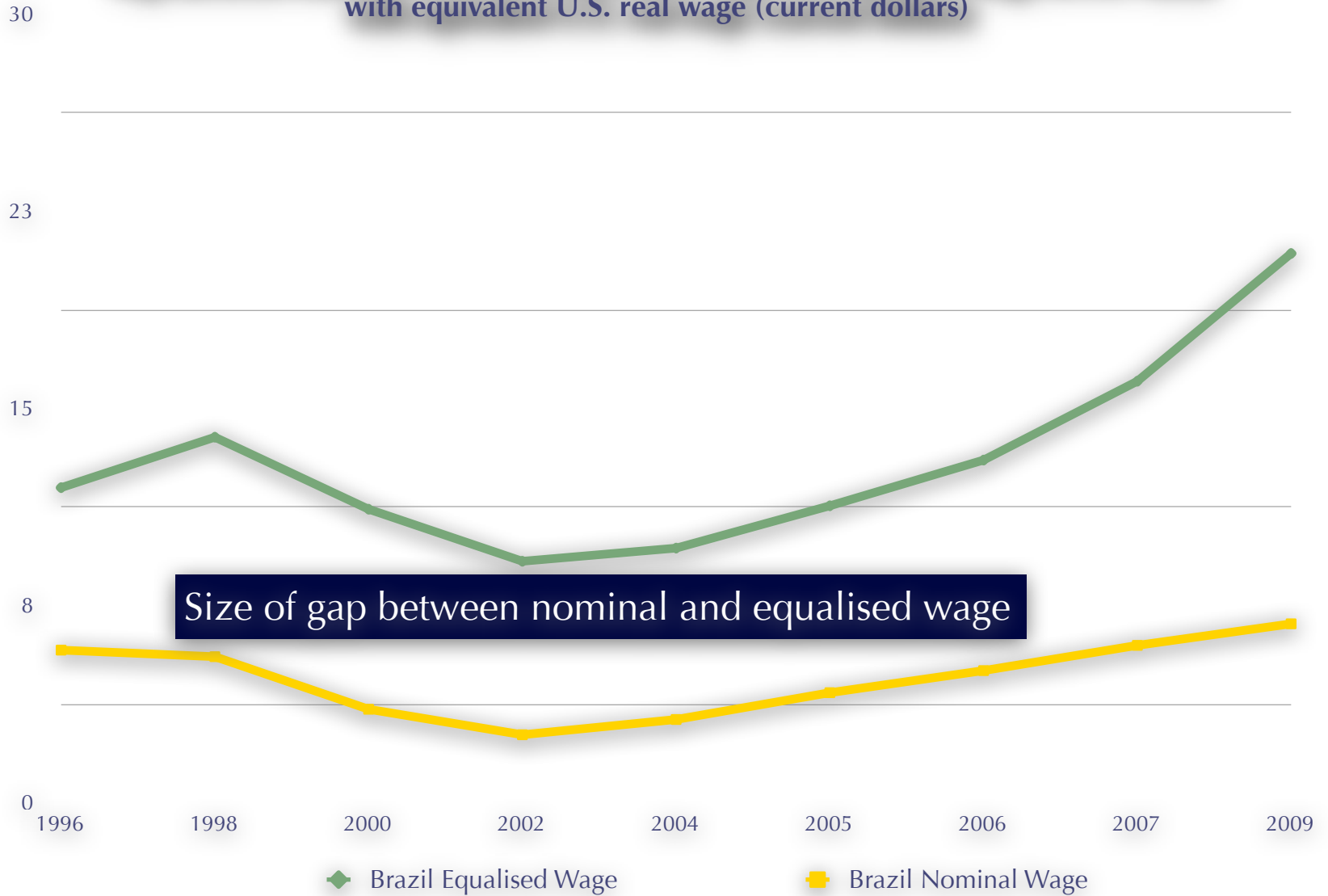
Between 1996 and 2009, the Brazilian equalised manufacturing hourly wage –the wage required to receive a remuneration equivalent to that of their U.S. counterparts– increases 74,3%, relative to the relationship between the PPP cost of living of Brazil and the U.S., going from \$11,99 in 1996 to \$20,90 U.S. dollars in 2009. Yet, given that Brazil’s hourly manufacturing wages grow nominally only 17,2%, from \$5,81 in 1996 to \$6,81 U.S. dollars in 2009, Brazil’s 1996 wage equalisation index stopped recovering after 2006 and has dropped back to its 2004 level of a 33 index, which is 31% below its 1996 index of 48. While U.S. wages nominally increased 9,4% between 2006 and 2009, Brazil’s increased it by 35,4%. But a steep increase of 48% in the PPP cost of living collapsed real wages. Yet wages should start improving once Brazil’s new minimum wage appreciation policy begins to be reflected on all wages from 2010 onward. (for further detail see table T4 in page 24).

Gap between manufacturing hourly wage and PPP equalisation index with real U.S. wage



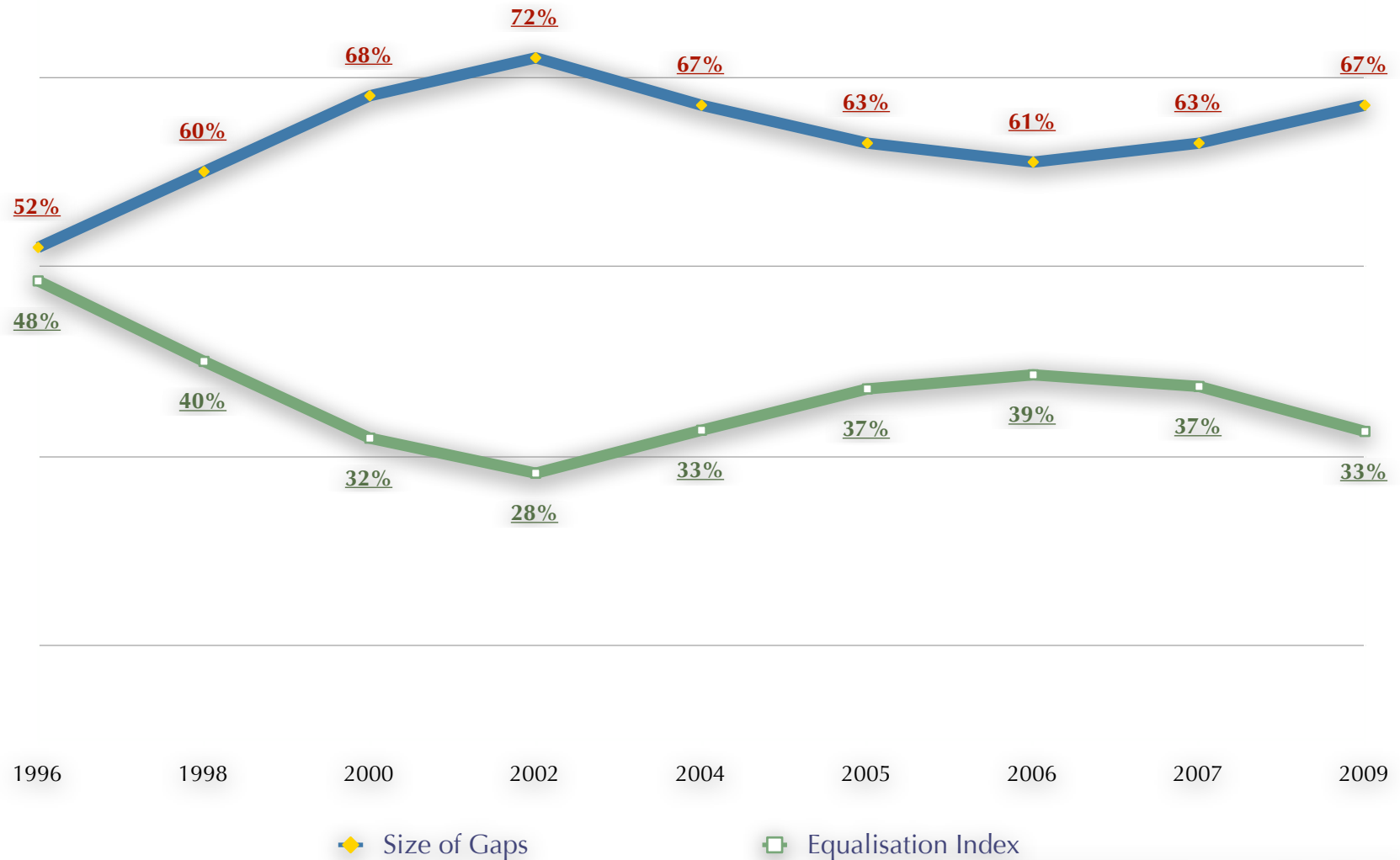
Sources: WB, U.S. BLS, OECD – © The Jus Semper Global Alliance

Gap Between nominal manufacturing hourly wage and equalised wage in PPP terms with equivalent U.S. real wage (current dollars)



Sources: WB, U.S. BLS, OECD – © The Jus Semper Global Alliance

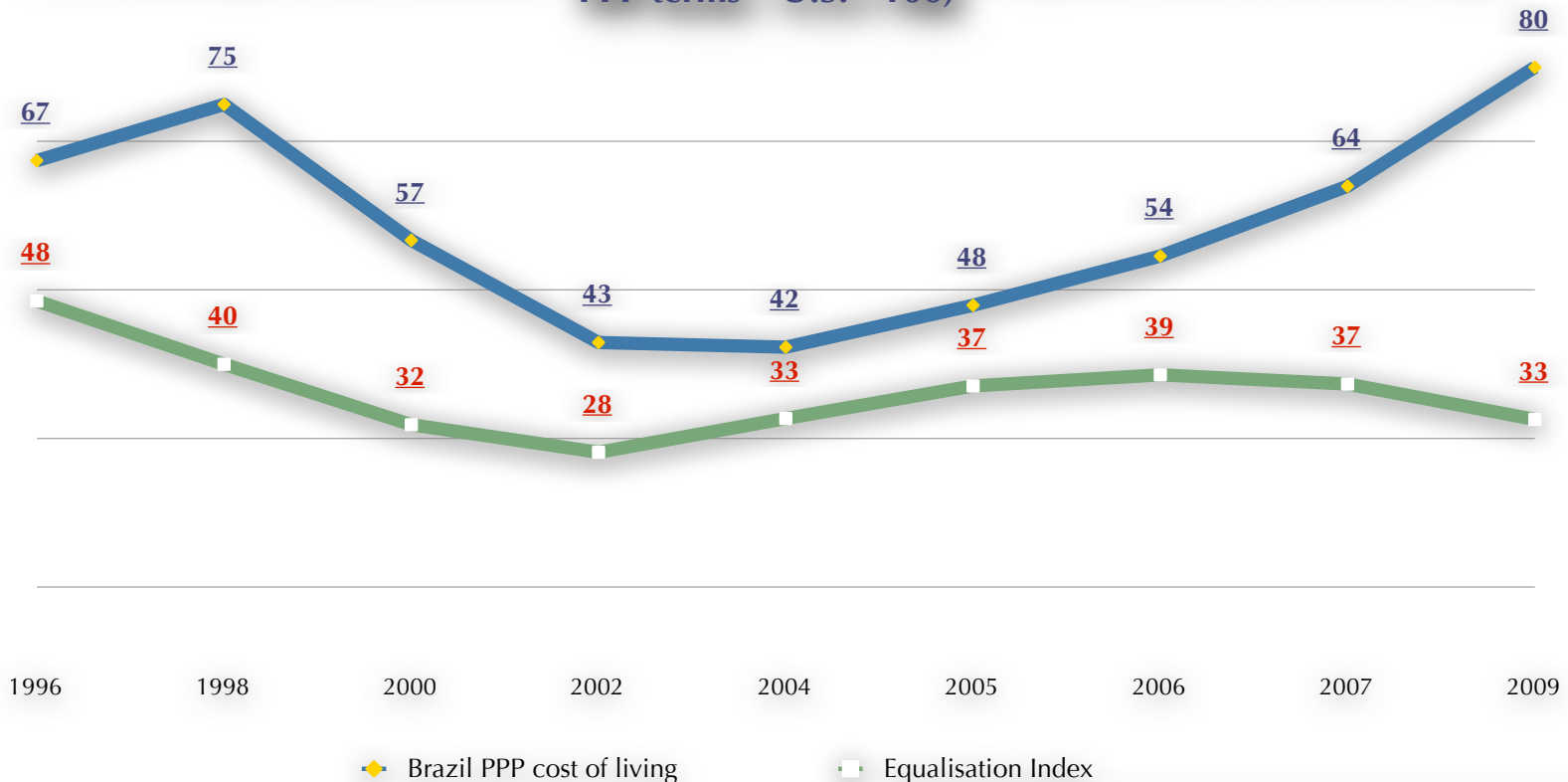
Gap between equalisation index and size of manufacturing hourly real wage gap in Brazil vis-à-vis U.S. real wage



Sources: WB, U.S. BLS, OECD – © The Jus Semper Global Alliance

Since 2005 Brazil has experienced a sharp increase in its cost of living due to the combined effect of inflation and a sustained currency revaluation. Thus, if the PPP cost of living was 48% of the U.S. in 2005, it jumped to 80% in 2009. Hence, Brazil's equalised wages vis-à-vis the U.S. has grown sharply. While U.S. wages grew 11% between 2005 and 2009, Brazil's equalised wages did by 95%. In this way, contrary to the trend experienced between 1998 and 2004 –when the gap between the cost of living and equalisation decreased, this has now increased sharply, particularly in the last three years and in fact has caused a decrease in the equalisation index. Brazil's wages, nonetheless, should improve beginning in 2010, once the minimum minimum wage appreciation policy takes effect.

Performance of equalisation indices of Brazil's PPP manufacturing hourly real wage vis-à-vis U.S. counterparts and behaviour of Brazil's purchasing power parity indices (cost of living in PPP terms – U.S.= 100)



Sources: WB, U.S. BLS, OECD – © The Jus Semper Global Alliance

When comparing Brazil's manufacturing sector real wages with those of their Mexican counterparts, the second largest economy in Iberian America, the former amounted to 2,7 times the value of the latter in 1996 to then drop more than 50% during the end of century crisis. Subsequently, Brazilian wages recovered slightly vis-à-vis their Mexican counterparts to then remained stagnated. Brazil's wages, as previously noted, should improve beginning in 2010, once the minimum wage appreciation policy takes effect.

Behaviour of comparative indices of Brazil's manufacturing hourly real wages vis-à-vis the equivalent Mexican wage (Mexico = 100)



*1996 Brazil data has been compared with 1995 Mexico data.

Sources: WB, U.S. BLS, OECD – © The Jus Semper Global Alliance

Thirty-year projection of the closing of the real wage equalisation gap

- **Projection of real wage equalisation in the manufacturing sector for production-line workers between Brazil and the United States in the term of thirty years, based on TLWNSI's concept**
- **Background.** At the end of 2009, the Brazilian State makes the decision to redefine the future of its wage policy by clearly establishing a commitment not just with the return of wages to their 1996 level –when they recorded their best position vis-à-vis the U.S.– but with their equalisation with the equivalent wages in the main economies of the system. Beginning in 2010 a plan for the annual increase of the minimum wage –described by the government as the “minimum wage appreciation policy”– is put in place (Medida Provisória No 474, de 23 de dezembro de 2009: Dispõe sobre o salário mínimo a partir de 1o de janeiro de 2010 e estabelece diretrizes para a política de valorização do salário mínimo entre 2011 e 2023). As is the case in most countries, the minimum wage operates as the benchmark to assess the wage level of all jobs in the economy. Thus, every increase to the minimum wage induces an increase in all other wage racks. In this way, for 2010, the Brazilian government increased the minimum wage 5,87% above inflation. The increase amounts, in nominal terms, to an increase of **9,68%** or R\$510 reais monthly. The measure constitutes a direct action of real wage recovery, regardless of business performance. Inevitably, this will transfer income from employers to workers, thus increasing labour's share of income within the economy. The measure transfers wealth from capital to labour, consequently moving forward towards a living wage ethos.
- Even of more importance, Brazil's government sent to Congress in 2010 a legislative project with three proposals to adjust the minimum wage, for the periods 2012 to 2015, 2016 to 2019 and 2020 to 2023. The plan clearly shows the intention of gradually closing the wage gap with the wages of the major economies up to 2023. The specific formula used by Brazil is the sum of the national consumer price index (NCPI) plus the variation of the GDP recorded two years prior, if it is positive. For example, if a year's inflation is 5% and GDP grows 4%, the nominal increase will be 9% and the real growth 4%. The project was approved into law in 2011 (LEI 12.382/2011) with the same criteria. In this way, for 2011, the NCPI was computed to be 6,47%, and since there was an actual drop of -0,6% of GDP in 2009, the new minimum wage for 2011 approved was R\$545 (rounded up from R\$543), an increase of **6,86%** (SUBCHEFIA DE ASSUNTOS PARLAMENTARES – EMI nº 27/MF/MTE/MP/MPS – 7 de fevereiro de 2011). A negative GDP is not taken into account. As for 2012, GDP in 2010 grew 7,5% and the NCPI increased by 6,76%. Thus, the minimum wage increased by **14,26%** to R\$622,73 per month. The average annual increase for 2010-2012 is then of 10,27%. Taking into account that these nominal increases are much larger than average wage increases in the U.S. (of 3% or less) and that Brazil's currency has increased its value, living wage equalisation is bound to improve substantially at least for the 2010-2012 period in general and, particularly, in the manufacturing sector. The combined increase to the nominal minimum wage since 2010 is now of 33,92%.
- Some expert assessments –rather optimistic in our opinion– reckon that Brazil could eliminate extreme poverty and produce social indicators that are close to those of rich countries by 2016. This is the opinion of the Institute of Applied Economic Research (IPEA in Portuguese), associated with the Ministry of Strategic Affairs of Brazil's presidential office. The institute argues that if Brazil succeeds in keeping the pace of performance achieved between 2003 and 2008, the goal of reducing poverty to 4% by 2016 is realistic, as well as the reduction of inequality to a Gini index below 0,4, which would put Brazil on the level of rich countries. IPEA considers that a meaningful part of the progress achieved with poverty and inequality is due to the permanence of monetary stability, greater economic expansion, the strengthening of minimum wage real growth and the expansion of social credit (Mariana Sallowicz: Brasil pode zerar miséria e se igualar a países ricos em 2016, diz Ipea, FolhaOnline, 12 de janeiro de 2010). In this respect, there are sound indicators that clearly exhibit progress in poverty reduction. One of the strongest evidence is the reduction in the number of hours needed to buy the basic basket of goods, which in 2009 dropped to the lowest number of hours since 1970 (109 hours and 53 minutes), according to the Statistics and Socioeconomic Studies Inter trade Union Institute (Dieese in Portuguese) (FolhaOnline: Tempo de trabalho necessário para comprar cesta básica é o menor desde 1970, 11 de janeiro de 2010). In January of 2012, the number of hours required to buy the basic basket of goods dropped even further to 20,7% (87 hours and 6 minutes: DIEESE : Em janeiro, preço da cesta só cai em duas capitais. São Paulo, 06 de fevereiro de 2012).
- Nonetheless, IPEA's assessment appears optimistic. The core element in the reduction of poverty is, undoubtedly, the transformation of Brazilian wages from their current undignified condition into living wages, through the equalisation of real wages in the entire economy with those of their counterparts in the most developed economies. Yet, the scope of the Brazilian plan of wage appreciation is set up to 2023. Thus, it seems unlikely that poverty would be eliminated by 2016, seven years before the extent of Brazil's plan of wage appreciation. Moreover, as we shall see ahead, our analysis indicates that it is highly improbable that Brazilian wages would be equalised –in purchasing power parity terms– with those of their U.S. counterparts –the international benchmark– in the term of fourteen years (2010 to 2023). Yet, it is possible to place the wages of some major economic sectors –such as manufacturing– by 2023 in ranks not too distant, and even similar, to those of economies regarded today as developed, such as South Korea and Spain. The plan up to 2023 will materialise the goal of converting a great deal of labour compensations into living wages, and this will constitute a great breakthrough in the reduction of poverty, but the time span will not be enough to fully close the wage gaps between Brazil and the major economies. Brazil will need about twenty-five years, as is indicated ahead.

Thirty-year projection of the closing of the real wage equalisation gap

- **Affinity with TLWNSI's concept.** Brazil's wage appreciation concept uses two criteria that are practically identical to TLWNSI's criteria. In order to determine the increase to be applied to the minimum wage, Brazil uses the sum of the inflation index, or (NCPI), of the immediately preceding year and the growth of GDP recorded two years prior. TLWNSI's conceptual framework also uses the sum of the inflationary index of the immediately preceding year plus several percentage points. The exact amount of additional points depends on the size of the gap and the term that each government imposes on itself to fulfil the goal of closing the wage gap. TLWNSI's goal is the equalisation of wages –in purchasing power parity terms– of developing countries with their U.S. counterparts in the term of not more than thirty years or a generation. TLWNSI's research indicates that, to fulfil the goal –in the maximum term of thirty years– most economies need to increase wages annually an average of 5% (+/- 2%) above inflation. Thus, if inflation averages 5%, wages would increase nominally an average of 10% to reach TLWNSI's goal.
- **Projection layout.** Using as benchmarks production-line manufacturing wages for Brazil and the U.S. in 2009, following is a thirty-year projection for the equalisation of Brazilian real wages with those of their U.S. counterparts. The projection parts from the fact that the Brazilian State has made the decision to increase minimum wages annually. It is assumed, with a great degree of confidence, that real wages for workers in all sectors of the economy will increase at a similar pace to what the Brazilian State imbues on the minimum wage –based on the inflationary index and GDP growth. This is so given that the minimum wage operates as the benchmark for the wage increases applied –or not– to all other wage racks. If real minimum wage increases take place, employers will feel compelled to raise other wages at a similar pace to maintain their competitiveness in the labour market.
- The purpose of this projection is to assess what would happen in the future to manufacturing wages as Brazil raises the minimum wage in line with its plan for minimum wage appreciation. In the same way, and in the same projection, TLWNSI's concept of raising nominal wages several percentage points above inflation to close wage gaps is applied. As it has been argued previously, both criteria are practically identical. Therefore, by applying Brazil's criteria of NCPI + GDP, TLWNSI's criteria of applying NCPI + various points above is fulfilled. In this way, the projection lets us observe with precision what is the wage equalisation index at the end of fourteen years, as the Brazilian plan is set out to reach. Moreover, if the gap has not been closed, it determines the number of additional years that would be required to reach wage equalisation with the United States.
- The projection assumes that the start of the Brazilian plan takes place in 2010. Hence the benchmark used is the wages recorded for 2009 for production-line manufacturing sector workers. As in the case of all previous charts, the analysis uses as its source the nominal wage data reported by the U.S. Department of Labour. Moreover, to calculate the cost of living and the size of the wage gap, the purchasing power parities that the World Bank estimates annually and applies to many economic indicators are applied herein as well. This analysis uses the differential between GNI (Gross National Income) and PPP GNI for Brazil, generated by the World Bank's economic indicators database.

Thirty-year projection of the closing of the real wage equalisation gap

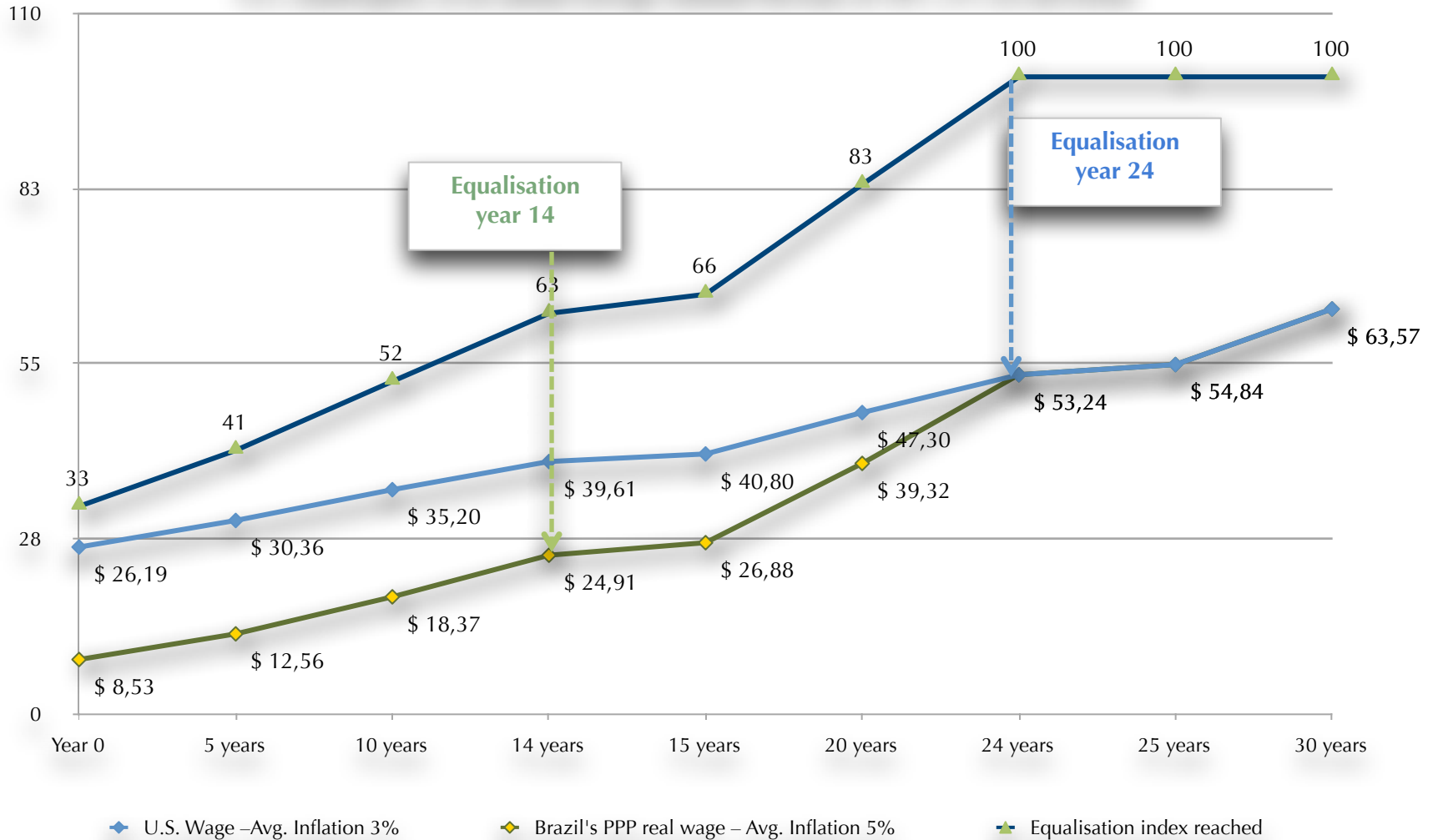
▪ Criteria applied in the projection:

- ➔ Average U.S. inflation: 3%, (average of 2,5% between 2001 and 2011).
- ➔ Average Brazilian inflation: 5% for the entire 30 years of the projection, (average of 6,7% between 2001 and 2011 and of 5% between 2006 and 2011).
- ➔ Brazil's average GDP growth: 5%, (average of 3,6% between 2001 and 2010 and of 4,4% between 2006 and 2010).
- ➔ The actual nominal increases already applied by Brazil's government to the minimum wage for the years 2010, 2011 and 2012 –of 9,68%, 6,86% and 14,26% respectively– are already incorporated into the projection.
- ➔ Average nominal increase of Brazilian wages (NCPI + GDP) of 10% until closing the gap and of 5% thereafter until year 30.
- ➔ Real value of wages in the U.S. remains constant, increasing annually their nominal value 3% to neutralise inflation.
- ➔ The benchmarks –and starting point– used in this projection are the real manufacturing wages for both economies for the year 2009 (Brazil: \$8,53 and United States: \$26,19). This thirty-year projection covers the 2010 to 2039 span of time.

▪ Results of the thirty-year projection:

- ➔ This projection at no time pretends to forecast what would be the inflationary indices or the rates of wage increase that will occur in Brazil in the future. For this projection, the average behaviour of these indicators has been established in a discretionary manner – based on the data recorded in the last few years– with the only purpose of projecting the level of nominal wage increase in the context of the minimum wage appreciation plan that the Brazilian government has implemented.
- ➔ At the end of the fourteen-year term covered by the Brazilian plan, the closing of the wage gap has not been met, albeit there has been a dramatic progress, reaching an equalisation index of 62,5%.
- ➔ For Brazilian wages to be fully equalised with the wages of their counterparts in the United States, it is necessary to maintain the same pace of annual nominal wage increases of 10% during 23 years –for a real wage annual increment of 5%, a nominal wage increase of 5,515% on year 24 and of 5% thereafter until year 30.
- ➔ In this way, wage equalisation with the U.S. would take 23 years of real wage increments, at this pace, to be fulfilled.
- ➔ From year 25 to year 30 it is assumed the same inflation rate of 5%, 2% above the U.S. inflation level. In this way, nominal wages both in Brazil and the U.S. are only increased at the same pace of inflation (5% and 3% respectively), so as to maintain their real value and the parity already equalised with the wages of their U.S. counterparts.
- ➔ Comparing with the results obtained in our previous projection included in our 1996-2008 assessment, the new data indicates that it will take 1 more year to close the living-wage gap. Previously, the gap was closed in year 22. This is due to a steep increase in the PPP cost of living of 48% between 2006 and 2009, as earlier noted. Yet, equalisation indices and the time span to close the gap should improve substantially beginning in 2010, when the government's minimum-wage appreciation policy kicks in.
- ➔ It should be noted that the average annual increase actually applied by the government to the minimum wage for the period 2010-2012 is of 10,27%, which is almost the same as what we are projecting here. Thus, unintentionally, the projection until now is replicating the actual increases to the minimum wage. Once the data from the U.S. Bureau of Labour Statistics becomes available, for the aforementioned period, we will assess how closely the minimum wage increases are reflected on manufacturing wages.

Thirty-year projection of real wage equalisation in the manufacturing sector for Brazil's production-line workers with their U.S. counterparts, at an annual average nominal increase of 10% (5% in real terms)



Not a forecasting analysis. This projection at no time pretends to forecast what would be the inflationary indices or the rates of wage increase that will occur in Brazil in the future. For this projection, the average behaviour of these indicators has been established in a discretionary manner – based on the data recorded in the last few years – with the only purpose of projecting the level of nominal wage increase in the context of the minimum wage appreciation plan that the Brazilian government has implemented.

Sources: WB, U.S. BLS, OECD – © The Jus Semper Global Alliance

Prospectus

- Parting from the implications carried by the plan of the Brazilian government to increase minimum wages in a sustainable manner up to 2023 –and using as the benchmark Brazil’s production-line workers in the manufacturing sector– it can be asserted that the policy to be applied will generate, in all certainty, rather meaningful social and economic benefits. Following the most relevant benefits are depicted:
- Although Brazil’s plan will hardly close the wage gap with the United States by 2023, it will undoubtedly embody a great improvement that will trigger different multiplying effects that will generate the endogenous development of Brazil. This will place it far much closer to the socioeconomic indicators of developed countries than of developing ones. Last year we were confident that once the benefits to be obtained from Brazil’s minimum wage appreciation policy were attested, the new government of Dilma Rousseff would maintain the same policy. But sooner than expected, Rousseff’s government and Brazil’s Congress have already transformed into law the appreciation plan and seem committed to it despite the fact that the opposite policy, of wage deprecation, is being pursued globally and with special emphasis in the European Union.
- To be sure, if the assumptions used in our projection materialise, Brazil would be able to equalise its wage share of income in approximately a quarter century. What is far more likely to occur is that as long as future Brazilian governments keep their commitment to dignify the workers’ share of income, Brazil would undoubtedly reach equalisation in the term of thirty years –in the worst case scenario– as proposed by TLWNSI’s concept. This would be the case as long as the social pressure and the political will necessary to sustain the wage policy that Brazil has launched combine to make this happen. As a reference, Spain and South Korea began to close their wage gaps since at least 1975, and albeit they have achieved tremendous progress and their wages already have clearly evolved into a living wage ethos, they still have wage equalisation gaps. South Korea, in particular, after a spectacular reduction of its wage gap (from 89% in 1975 to 17% in 2007, has increased it again to 35%. This is a direct consequence of the fact that financial markets unrelentingly exert pressure on employers to increase shareholder value, and the easiest, fastest and most effective way to achieve this is by cutting real wages.
- Nonetheless, Brazil’s demand-side economic policy –for the time being– will generate multiplying effects that will consolidate social development, anchored on the generation of aggregate demand. This will increase not just wages, but formal employment, tax revenue, the sustainability of the social security system, economies of scale and the competitiveness of the Brazilian economy in the global context, among others. These effects notwithstanding, the greatest benefit will be the drastic decrease of poverty and an abatement of innumerable social problems engendered by poverty and exclusion. In this way, Brazil will move ahead and approach, meaningfully, the making of an ethos where the majority of Brazilians – albeit not so for a considerable segment– will have full access to the enjoyment of a broad array of human rights instrumental in the development of their capacities to carve a dignified life. Unfortunately, it is necessary to emphasise that these assumptions are made in the context of a market dominated ethos, which, by definition, is unsustainable, for the additional consumption to be generated is unsustainable in the long term.
- One of the greatest benefits of the appreciation of real wages of any country –in the context of a living wage ethos– is the direct impact on the eradication of the conditions of inequality and exclusion; conditions that have prevailed in Brazil in a customary and rather brazen manner. Thus, if Brazil seriously commits long-term to the materialisation of this central objective of social justice, it will accomplish the transformation of its society into one where equality and a high degree of wellbeing prevail –the sine qua non attributes of truly democratic societies. Yet, for these ethos to become sustainable in the long term, eventually, consumer societies will have to transform into societies with a new paradigm centred on the welfare of people and planet and not the market, which requires pervasive and unrelenting consumption.
- To be sure, there is no guarantee that the current minimum wage appreciation policy will be maintained by future Brazilian governments. In any case, the responsibility for making sure that this policy remains falls directly on society, which bears the full load for making Brazil’s future governments feel compelled to consolidate this objective. Hence, it is indispensable that Brazilians become fully aware about the need to permanently get involved in the public matter to make sure that future governments work for the benefit of society and not for the owners of the market and their very private interests, as the vast majority of governments enthusiastically pursue in most countries today.

The Jus Semper Global Alliance – Living-Wage-Gap and Equalisation analysis (vis-à-vis the U.S.) for PL manufacturing workers in purchasing power parity terms 1975-2009

		1975	1980	1985	1990	1995	2000	2005	2007	2009
Benchmark	1. U.S. Hourly Manufacturing Rate	6,19	9,67	12,76	14,88	17,24	19,73	23,60	25,13	26,19
Canada	GNI PPPs in country currency*	1,222	1,234	1,237	1,254	1,269	1,192	1,165	1,140	1,283
	Exchange rate	1,017	1,17	1,37	1,170	1,370	1,49	1,21	1,07	1,14
	GNI PPPs in US Dollars	\$ 1,20	\$ 1,05	\$ 0,90	\$ 1,07	\$ 0,93	\$ 0,80	\$ 0,96	\$ 1,07	\$ 1,13
	2. Equalised PPP nominal compensation US \$	\$ 7,44	\$ 10,20	\$ 11,52	\$ 15,95	\$ 15,96	\$ 15,78	\$ 22,73	\$ 26,77	\$ 29,47
	3. Actual Real compensation US \$	\$ 5,33	\$ 8,55	\$ 12,62	\$ 15,51	\$ 18,14	\$ 20,98	\$ 25,22	\$ 27,17	\$ 23,46
	4. Actual Nominal compensation US \$	\$ 6,40	\$ 9,02	\$ 11,40	\$ 16,62	\$ 16,80	\$ 16,78	\$ 24,29	\$ 28,94	\$ 26,40
	Compensation Deficit in US \$ (2 minus 4)	\$ 1,04	\$ 1,18	\$ 0,12	\$ (0,67)	\$ (0,84)	\$ (1,00)	\$ (1,56)	\$ (2,17)	\$ 3,07
	Wage Equalisation index (4÷2 or 3÷1)	0,86	0,88	0,99	1,04	1,05	1,06	1,07	1,08	0,90
South Korea	GNI PPPs in country currency*	238,900	469,826	475,856	534,158	668,807	655,045	760,441	750,774	929,230
	Exchange rate	484	607,4	870,02	707,76	771,27	1130,96	1024,12	929,26	1276,93
	GNI PPPs in US Dollars	\$ 0,49	\$ 0,77	\$ 0,55	\$ 0,75	\$ 0,87	\$ 0,58	\$ 0,74	\$ 0,81	\$ 0,73
	2. Equalised PPP nominal compensation US \$	\$ 3,06	\$ 7,48	\$ 6,98	\$ 11,23	\$ 14,95	\$ 11,43	\$ 17,52	\$ 20,30	\$ 19,06
	3. Actual Real compensation US \$	\$ 0,67	\$ 1,27	\$ 2,34	\$ 5,02	\$ 8,70	\$ 14,74	\$ 17,78	\$ 20,98	\$ 17,03
	4. Actual Nominal compensation US \$	\$ 0,33	\$ 0,98	\$ 1,28	\$ 3,79	\$ 7,54	\$ 8,54	\$ 13,20	\$ 16,95	\$ 12,39
	Compensation Deficit in US \$ (2 minus 4)	\$ 2,73	\$ 6,50	\$ 5,70	\$ 7,44	\$ 7,41	\$ 2,89	\$ 4,32	\$ 3,35	\$ 6,67
	Wage Equalisation index (4÷2 or 3÷1)	0,11	0,13	0,18	0,34	0,50	0,75	0,75	0,83	0,65

The Jus Semper Global Alliance – Living-Wage-Gap and Equalisation analysis (vis-à-vis the U.S.) for PL manufacturing workers in purchasing power parity terms 1975-2009

		1975	1980	1985	1990	1995	2000	2005	2007	2009
Benchmark	1. U.S. Hourly Manufacturing Rate	6,19	9,67	12,76	14,88	17,24	19,73	23,60	25,13	26,19
Japan	GNI PPPs in country currency*	286,000	283,358	205,644	206,539	168,142	143,776	138,352	128,134	106,775
	Exchange rate	296,79	226,74	238,54	144,79	94,06	107,77	110,22	117,75	93,57
	GNI PPPs in US Dollars	\$ 0,96 \$	1,25 \$	0,86 \$	1,43 \$	1,79 \$	1,33 \$	1,26 \$	1,09 \$	1,14
	2. Equalised PPP nominal compensation US \$	\$ 5,96 \$	12,08 \$	11,00 \$	21,23 \$	30,82 \$	26,32 \$	29,62 \$	27,35 \$	29,89
	3. Actual Real compensation US \$	\$ 3,06 \$	4,33 \$	7,24 \$	8,78 \$	13,06 \$	16,26 \$	16,98 \$	18,17 \$	22,22
	4. Actual Nominal compensation US \$	\$ 2,95 \$	5,41 \$	6,24 \$	12,52 \$	23,34 \$	21,69 \$	21,31 \$	19,77 \$	25,36
	Compensation Deficit in US \$ (2 minus 4)	\$ 3,01 \$	6,67 \$	4,76 \$	8,71 \$	7,48 \$	4,63 \$	8,31 \$	7,58 \$	4,53
Wage Equalisation index (4÷2 or 3÷1)	0,49	0,45	0,57	0,59	0,76	0,82	0,72	0,72	0,85	
France	GNI PPPs in country currency*	4,978	5,714	6,716	6,366	6,212	1,030	0,936	0,874	0,901
	Exchange rate	4,29	4,23	8,99	5,450	4,990	1,0832	0,8033	0,7293	0,7176
	GNI PPPs in US Dollars	\$ 1,16 \$	1,35 \$	0,75 \$	1,17 \$	1,24 \$	0,95 \$	1,17 \$	1,20 \$	1,26
	2. Equalised PPP nominal compensation US \$	\$ 7,18 \$	13,06 \$	9,53 \$	17,38 \$	21,46 \$	18,77 \$	27,50 \$	30,10 \$	32,88
	3. Actual Real compensation US \$	\$ 4,07 \$	6,91 \$	10,51 \$	13,84 \$	16,08 \$	16,78 \$	21,42 \$	24,16 \$	24,23
	4. Actual Nominal compensation US \$	\$ 4,72 \$	9,33 \$	7,85 \$	16,17 \$	20,02 \$	15,96 \$	24,96 \$	28,94 \$	30,42
	Compensation Deficit in US \$ (2 minus 4)	\$ 2,46 \$	3,73 \$	1,68 \$	1,21 \$	1,44 \$	2,81 \$	2,54 \$	1,16 \$	2,46
Wage Equalisation index (4÷2 or 3÷1)	0,66	0,71	0,82	0,93	0,93	0,85	0,91	0,96	0,93	
Germany	GNI PPPs in country currency*	3,062	2,330	2,042	1,795	1,831	1,075	0,888	0,794	0,826
	Exchange rate	2,4553	1,8175	2,9419	1,6166	1,4321	1,0832	0,8033	0,7293	0,7176
	GNI PPPs in US Dollars	\$ 1,25 \$	1,28 \$	0,69 \$	1,11 \$	1,28 \$	0,99 \$	1,11 \$	1,09 \$	1,15
	2. Equalised PPP nominal compensation US \$	\$ 7,72 \$	12,39 \$	8,86 \$	16,52 \$	22,04 \$	19,58 \$	26,08 \$	27,35 \$	30,16
	3. Actual Real compensation US \$	\$ 4,14 \$	7,84 \$	11,31 \$	16,26 \$	20,47 \$	19,77 \$	25,91 \$	30,19 \$	30,22
	4. Actual Nominal compensation US \$	\$ 5,16 \$	10,05 \$	7,85 \$	18,05 \$	26,17 \$	19,62 \$	28,64 \$	32,85 \$	34,80
	Compensation Deficit in US \$ (2 minus 4)	\$ 2,56 \$	2,34 \$	1,01 \$	(1,53) \$	(4,13) \$	(0,04) \$	(2,56) \$	(5,50) \$	(4,64)
Wage Equalisation index (4÷2 or 3÷1)	0,67	0,81	0,89	1,09	1,19	1,00	1,10	1,20	1,15	
Italy	GNI PPPs in country currency*	539,500	751,484	1151,038	1238,936	1548,189	0,891	0,875	0,773	0,790
	Exchange rate	652,85	856,45	1909,440	1198,1	1628,930	1,0832	0,8033	0,7293	0,7176
	GNI PPPs in US Dollars	\$ 0,83 \$	0,88 \$	0,60 \$	1,03 \$	0,95 \$	0,82 \$	1,09 \$	1,06 \$	1,10
	2. Equalised PPP nominal compensation US \$	\$ 5,12 \$	8,48 \$	7,69 \$	15,39 \$	16,39 \$	16,23 \$	25,69 \$	26,64 \$	28,81
	3. Actual Real compensation US \$	\$ 5,69 \$	9,35 \$	12,72 \$	17,42 \$	17,58 \$	17,67 \$	22,37 \$	26,65 \$	27,88
	4. Actual Nominal compensation US \$	\$ 4,70 \$	8,20 \$	7,67 \$	18,01 \$	16,71 \$	14,53 \$	24,35 \$	28,25 \$	30,67
	Compensation Deficit in US \$ (2 minus 4)	\$ 0,42 \$	0,28 \$	0,02 \$	(2,62) \$	(0,32) \$	1,70 \$	1,34 \$	(1,61) \$	(1,86)
Wage Equalisation index (4÷2 or 3÷1)	0,92	0,97	1,00	1,17	1,02	0,90	0,95	1,06	1,06	
United Kingdom	GNI PPPs in country currency*	0,380	0,444	0,541	0,583	0,636	0,658	0,643	0,609	0,740
	Exchange rate	0,452	0,43	0,779	0,563	0,634	0,661	0,55	0,50	0,642
	GNI PPPs in US Dollars	\$ 0,84 \$	1,03 \$	0,69 \$	1,04 \$	1,00 \$	1,00 \$	1,17 \$	1,22 \$	1,15
	2. Equalised PPP nominal compensation US \$	\$ 5,21 \$	9,97 \$	8,86 \$	15,41 \$	17,29 \$	19,65 \$	27,57 \$	30,60 \$	30,19
	3. Actual Real compensation US \$	\$ 3,86 \$	7,07 \$	8,71 \$	11,69 \$	13,35 \$	16,67 \$	21,03 \$	23,83 \$	20,26
	4. Actual Nominal compensation US \$	\$ 3,25 \$	7,29 \$	6,05 \$	12,11 \$	13,39 \$	16,60 \$	24,57 \$	29,01 \$	23,35
	Compensation Deficit in US \$ (2 minus 4)	\$ 1,96 \$	2,68 \$	2,81 \$	3,30 \$	3,90 \$	3,05 \$	3,00 \$	1,59 \$	6,84
Wage Equalisation index (4÷2 or 3÷1)	0,62	0,73	0,68	0,79	0,77	0,84	0,89	0,95	0,77	

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		1975	1980	1985	1990	1995	2000	2005	2007	2009
Benchmark	1. U.S. Hourly Manufacturing Rate	6,19	9,67	12,76	14,88	17,24	19,73	23,60	25,13	26,19
Spain	GNI PPPs in country currency*	44,830	64,181	82,874	91,745	114,175	0,790	0,757	0,681	0,730
	Exchange rate	57,41	71,70	170,04	101,930	124,69	1,0832	0,8033	0,7293	0,7176
	GNI PPPs in US Dollars	\$ 0,78	\$ 0,90	\$ 0,49	\$ 0,90	\$ 0,92	\$ 0,73	\$ 0,94	\$ 0,93	\$ 1,02
	2. Equalised PPP nominal compensation US \$	\$ 4,83	\$ 8,66	\$ 6,22	\$ 13,39	\$ 15,79	\$ 14,39	\$ 22,25	\$ 23,45	\$ 26,64
	3. Actual Real compensation US \$	\$ 3,19	\$ 6,47	\$ 9,42	\$ 12,48	\$ 13,76	\$ 14,49	\$ 18,73	\$ 22,61	\$ 23,30
	4. Actual Nominal compensation US \$	\$ 2,49	\$ 5,79	\$ 4,59	\$ 11,23	\$ 12,60	\$ 10,57	\$ 17,66	\$ 21,10	\$ 23,70
	Compensation Deficit in US \$ (2 minus 4)	\$ 2,34	\$ 2,87	\$ 1,63	\$ 2,16	\$ 3,19	\$ 3,82	\$ 4,59	\$ 2,35	\$ 2,94
	Wage Equalisation index (4÷2 or 3÷1)	0,52	0,67	0,74	0,84	0,80	0,73	0,79	0,90	0,89
Mexico	GNI PPPs in country currency*	9,700	15,213	117,389	1332,653	3,723	5,396	7,113	7,152	8,613
	Exchange rate	12,50	22,97	256,9	2813,0	6,42	9,46	10,89	10,93	13,51
	GNI PPPs in US Dollars	\$ 0,78	\$ 0,66	\$ 0,46	\$ 0,47	\$ 0,58	\$ 0,57	\$ 0,65	\$ 0,65	\$ 0,64
	2. Equalised PPP nominal compensation US \$	\$ 4,80	\$ 6,40	\$ 5,83	\$ 7,05	\$ 10,00	\$ 11,25	\$ 15,41	\$ 16,44	\$ 16,70
	3. Actual Real compensation US \$	\$ 2,32	\$ 4,09	\$ 4,27	\$ 4,10	\$ 3,19	\$ 5,29	\$ 5,63	\$ 6,34	\$ 5,98
	4. Actual Nominal compensation US \$	\$ 1,80	\$ 2,71	\$ 1,95	\$ 1,94	\$ 1,85	\$ 3,02	\$ 3,68	\$ 4,15	\$ 3,81
	Compensation Deficit in US \$ (2 minus 4)	\$ 3,00	\$ 3,69	\$ 3,88	\$ 5,11	\$ 8,15	\$ 8,23	\$ 11,73	\$ 12,29	\$ 12,89
	Wage Equalisation index (4÷2 or 3÷1)	0,37	0,42	0,33	0,28	0,19	0,27	0,24	0,25	0,23
		1996	1998	2000	2002	2004	2005	2006	2007	2009
Benchmark	U.S. Hourly Production-line Rate	17,82	18,59	19,73	21,42	22,92	23,60	23,94	25,13	26,19
Brazil	GNI PPPs in country currency*	0,676	0,869	1,036	1,253	1,237	1,166	1,184	1,242	1,596
	Exchange rate	1,005	1,161	1,830	2,921	2,926	2,435	2,174	1,946	2,00
	GNI PPPs in US Dollars	\$ 0,67	\$ 0,75	\$ 0,57	\$ 0,43	\$ 0,42	\$ 0,48	\$ 0,54	\$ 0,64	\$ 0,80
	2. Equalised PPP nominal compensation US \$	\$ 11,99	\$ 13,91	\$ 11,17	\$ 9,19	\$ 9,69	\$ 11,30	\$ 13,04	\$ 16,04	\$ 20,90
	3. Actual Real compensation US \$	\$ 8,64	\$ 7,43	\$ 6,29	\$ 6,04	\$ 7,50	\$ 8,75	\$ 9,23	\$ 9,38	\$ 8,54
	4. Actual Nominal compensation US \$	\$ 5,81	\$ 5,56	\$ 3,56	\$ 2,59	\$ 3,17	\$ 4,19	\$ 5,03	\$ 5,99	\$ 6,81
	Compensation Deficit in US \$ (2 minus 4)	\$ 6,18	\$ 8,35	\$ 7,61	\$ 6,60	\$ 6,52	\$ 7,11	\$ 8,01	\$ 10,05	\$ 14,09
	Wage Equalisation index (4÷2 or 3÷1)	0,48	0,40	0,32	0,28	0,33	0,37	0,39	0,37	0,33

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		1980	1985	1990	1995	2000	2005	2007	2009
Benchmark	U.S. Hourly Production-line Rate	9,67	12,76	14,88	17,24	19,73	23,60	25,13	26,19
Hong Kong	GNI PPPs in country currency*	3,83	4,60	5,92	7,82	7,79	6,13	5,581	5,451
	Exchange rate	4,976	7,791	7,790	7,736	7,792	7,777	7,801	7,752
	GNI PPPs in US Dollars	\$ 0,77	\$ 0,59	\$ 0,76	\$ 1,01	\$ 1,00	\$ 0,79	\$ 0,72	\$ 0,70
	2. Equalised PPP nominal compensation US \$	\$ 7,45	\$ 7,53	\$ 11,31	\$ 17,43	\$ 19,72	\$ 18,60	\$ 17,98	\$ 18,42
	3. Actual Real compensation US \$	\$ 2,00	\$ 3,00	\$ 4,34	\$ 4,84	\$ 5,50	\$ 7,09	\$ 8,04	\$ 8,28
	4. Actual Nominal compensation US \$	\$ 1,54	\$ 1,77	\$ 3,30	\$ 4,89	\$ 5,50	\$ 5,59	\$ 5,75	\$ 5,82
	Compensation Deficit in US \$ (2 minus 4)	\$ 5,91	\$ 5,76	\$ 8,01	\$ 12,54	\$ 14,22	\$ 13,01	\$ 12,23	\$ 12,60
	Wage Equalisation index (4÷2 or 3÷1)	0,21	0,24	0,29	0,28	0,28	0,30	0,32	0,32
Singapore	GNI PPPs in country currency*	1,564	1,372	1,238	1,278	1,224	1,117	1,016	1,085
	Exchange rate	2,141	2,200	1,813	1,417	1,725	1,664	1,507	1,454
	GNI PPPs in US Dollars	\$ 0,73	\$ 0,62	\$ 0,68	\$ 0,90	\$ 0,71	\$ 0,67	\$ 0,67	\$ 0,75
	2. Equalised PPP nominal compensation US \$	\$ 7,07	\$ 7,96	\$ 10,16	\$ 15,55	\$ 14,00	\$ 15,84	\$ 16,93	\$ 19,54
	3. Actual Real compensation US \$	\$ 2,12	\$ 4,12	\$ 5,58	\$ 8,55	\$ 10,41	\$ 10,96	\$ 12,61	\$ 12,37
	4. Actual Nominal compensation US \$	\$ 1,55	\$ 2,57	\$ 3,81	\$ 7,71	\$ 7,39	\$ 7,36	\$ 8,50	\$ 9,23
	Compensation Deficit in US \$ (2 minus 4)	\$ 5,52	\$ 5,39	\$ 6,35	\$ 7,84	\$ 6,61	\$ 8,48	\$ 8,43	\$ 10,31
	Wage Equalisation index (4÷2 or 3÷1)	0,22	0,32	0,37	0,50	0,53	0,46	0,50	0,47

***Definitions:**

- ❖ PPPs stands for Purchasing-Power Parities, which reflect the currency units in a given country that are required to buy the same goods and services that can be purchased in the base country with one currency unit. This analysis uses the U.S. and the U.S. dollar as the benchmark and assumes that the U.S. wage is a living wage.
- ❖ The hourly production-line rate is the "hourly compensation cost" as defined by the U.S. Department of Labour, Bureau of Labour Statistics: This includes (1) hourly direct pay and (2) employer social insurance expenditures and other labour taxes. Hourly direct pay includes all payments made directly to the worker, before payroll deductions of any kind, consisting of pay for time worked and other direct pay. Social insurance expenditures and other labour taxes refers to the value of social contributions incurred by employers in order to secure entitlement to social benefits for their employees.
- ❖ GNI (Gross National Income) PPPs in country currency express the number of country currency units required to buy the same goods and services a U.S. dollar can buy in the U.S.
- ❖ Exchange rate is nominal exchange rate.
- ❖ GNI PPPs in U.S. Dollars expresses the U.S. dollar units required in a given country to buy the same goods and services a U.S. dollar can buy in the U.S. If the PPP is less than 1, a U.S. dollar can buy more in the country in question because the cost of living is lower, and viceversa.
- ❖ The GNI PPP, expressed in national currency, reflects the exchange rate in comparison with the market exchange rate, which does not reflect the ratio of prices.
- ❖ Equalised PPP nominal compensation is the hourly U.S. dollar nominal rate required to equally compensate a worker in a country, in purchasing power terms, for equal work rendered, as the equivalent U.S. worker is compensated. This analysis assumes the U.S. wage to be a living-wage. A living wage is a human right in accordance with Article 23 of the UN Universal Declaration of Human Rights. ILO's Convention 100 of "equal pay for equal work", for men and women is hereby applied in a global context.
- ❖ Actual Real Compensation is the hourly wage paid in a given country in purchasing power terms.
- ❖ Actual Nominal Compensation is the nominal hourly wage paid in a given country.
- ❖ Compensation deficit expresses the wage gap between the hourly nominal rate paid (4) and the equalised PPP hourly rate that should be paid for equal work (2).
- ❖ Compensation equalisation index expresses the ratio of actual nominal pay to equivalent PPP hourly pay (4 between 2): or the ratio of actual real pay (3) to the hourly nominal pay benchmark (1) (3 between 1).
- ❖ Note: Variations in previous years are due to revisions made by the sources, including the World Bank's new 2005 PPP benchmarks, which replaced the previous 1993 benchmarks.
- ❖ According to the World Bank, the 2005 PPPs are the most comprehensive for developing countries since 1993, and reveal that the size of their economies were often overestimated.

Sources: The Jus Semper Global Alliance analysis is performed using the sources below. (Sources with X indicate that some of their data is directly incorporated in the table:)

- Database of World Bank's World Development Indicators, 1975-2010, (GNI & GNI PPP, Atlas method)
- X Hourly Compensation Costs for Production Workers in Manufacturing (34 Country Tables), updated on March 2011. U.S. Dept. of Labour, Bureau of Labour Statistics. – Global Purchasing Power Parities and Real Expenditures. 2005 International Comparison Program. World Bank 2008.
- X PPPs for OECD Countries 1970-2002, OECD 2002 and GDP PPPs historical series 1970-1999.
- Purchasing Power parities – Measurement and Uses by Paul Schreyer and Francette Koechlin, OECD Statistical briefs, March 2002.

This will be the last report for production workers, for the U.S. Department of Labour has stopped disseminating data for production workers only. Beginning with 2010, the data will report labour costs for all manufacturing employees, including production workers.

Note regarding the new 2005 PPC round:

Since 1970 the International Comparison Program (ICP) of the World Bank has conducted eight rounds of PPP estimates for the major components of countries' gross domestic product (GDP)—the most recent for 2005. According to the World Bank, the PPP process calls for the systematic collection of price data on hundreds of representative and carefully defined products and services consumed in each country. Purchasing power parities are needed because similar goods and services have widely varying prices across countries when converted to a common currency using market exchange rates.

The PPPs previously published in World Development Indicators and used to estimate international poverty rates were extrapolated from the benchmark results of the 1993 ICP or from the Eurostat 2002 and then extrapolated forward and backward. The extrapolation method assumes that an economy's PPP conversion factor adjusts according to the different rates of inflation for its economy and the base economy, the United States. A good approximation in the short run, but over a longer period changes in the relative prices of goods and services and in the structure of economies—what they produce and consume—distort this relationship, and new measurements must be made. New methods of data collection, differences in country participation, and changes in analytical methods all add to the differences between new PPPs and old.

The major finding, in the 2005 round of PPP estimates, is that, under the new PPPs, the aggregate GDP of developing economies in 2005 is 21 percent smaller than previously estimated, corresponding to a 7 percentage point reduction in their share of world GDP—from 47 percent to 40 percent. The United States—as the base country, unaffected by any revision—increased its share from 20,6 percent to 22,1 percent.



The Jus Semper Global Alliance