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INTERNATIONAL OBSERVATORY
OF LIVING WAGES

Brazil's Wage Gaps

Wage rates for all employed in manufacturing

2020 Report

Manufacturing wage gaps for Brazil vis-à-vis
selected developed and “emerging”
economies, with available wage and PPP data
(1996-2018)

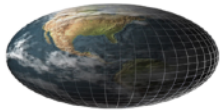
(see definitions and sources at the end of report)

Manufacturing wage gaps for Brazil vis-à-vis selected developed and “emerging” economies, with available wage and PPP data (1996-2018).

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The Jus Semper Global Alliance

A Collaborative Research Project



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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—with respect to North-South relations—as the direct result of unequal exchange structures deliberately imposed on the periphery to maximise returns through the use of global labour arbitrage in the global South. (See: Claudio Jedlicki: *Unequal Exchange*, The Jus Semper Global Alliance, September 2007 and Intan Suwandi: *Return to Production*, The Jus Semper Global Alliance, October 2020).
- 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 three 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.
 - ➔ Article 7 of the UN's International Covenant of Economic, Social and Cultural Rights of 1966: (i) Fair wages and **equal remuneration for work of equal value** without distinction of any kind, in particular women being guaranteed conditions of work not inferior to those enjoyed by men, with equal pay for equal work; (ii) A decent living for themselves and their families;
 - ➔ 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 the 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 US has in the United States; e.g.: if the PPP index in one country is 69, then \$0,69 are required in that country to buy the same that \$1 buys in the US; 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 buys in the US; the cost of living is, thus, higher,
- To calculate a living wage, the real wage of a specific category of US workers is used as the benchmark, and the PPPs of a country in question are then applied to the US 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 US 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 US, 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 2018

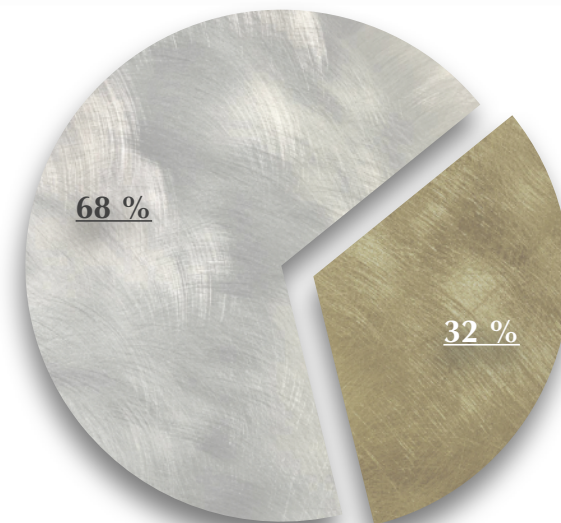
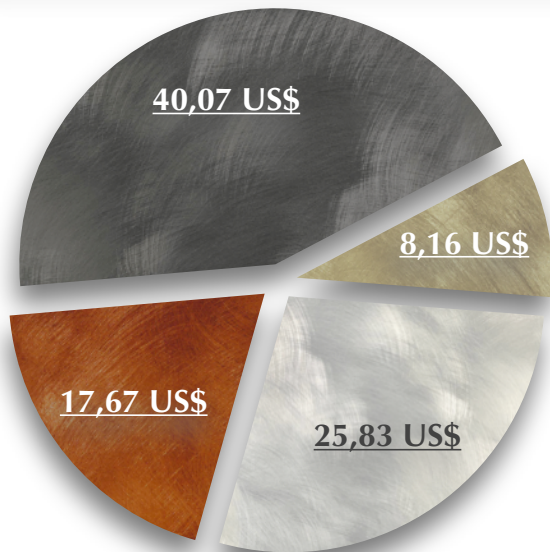
- Equivalent manufacturing workers in Mexico and Brazil earn only 24% and 32%, respectively, of what they should be making in order to be compensated at par with their US counterparts in terms of purchasing power,
- US Workers earn \$40,07/hour whilst Mexican and Brazilian workers earn only \$5,18/hour and \$8,16/hour, respectively,
- Since costs of living in PPP terms in Mexico and Brazil are \$0,54 and \$0,64, respectively, for each \$1 US dollar, equivalent Mexican and Brazilian manufacturing workers should be earning instead \$21,49/hour and \$25,83/hour, respectively, in order to enjoy equal purchasing power compensation,
- The difference is the wage rate gap that employers actually rob to increase profits,
- Canada, in contrast, has a much smaller gap with its US counterparts, since its nominal wage rate (\$33,02) is 82% of the equivalent wage rate (\$40,21) needed to be at par, with a PPP of \$1,00 per each \$1 US dollar.

Nominal, Real and Equalisation Wage Rate for All Employed in Manufacturing by Using Purchase Power Parities (PPPs) Benchmark					
	Nominal Hourly	PPP	PPP	Equalised Nominal Hourly	Equalisation
2018	<u>Wage Rate</u>	<u>2017</u>	<u>Real Wage Rate</u>	<u>Wage Rate</u>	<u>Index</u>
United States	40,07 US\$	100	40,07 US\$	40,07 US\$	100
Canada	33,02 US\$ 82 %	100	32,91 US\$ 82 %	40,21 US\$ 100 %	82
Mexico	5,18 US\$ 13 %	54	9,66 US\$ 24 %	21,49 US\$ 54 %	24
Brazil	8,16 US\$ 20 %	64	12,66 US\$ 32 %	25,83 US\$ 64 %	32
Sources:					
	International Observatory of Living Wages 2020.				
	The Conference Board, International Labor Comparisons program, December 2019.				
	Data base of World Bank's World Development Indicators, 1975-2019, (private consumption PPP indicator)				

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

▪ A Classic Example in 2018

- From a graphic perspective, the first pie chart shows the U.S. real wage rate for all employed in the manufacturing sector, which is always the benchmark. In the case of Brazil, the pie chart exhibits the nominal wage rate earned, the nominal wage rate equalised with the U.S. wage rate –always in purchasing power parity terms, and the difference retained inappropriately (deliberately).
- The nominal equalised wage rate of \$25,83 is what all employed in Brazil’s manufacturing sector should earn to be equally remunerated (in purchasing power terms) for performing an equivalent task (because Brazil’s PPP cost of living is 64% the cost in the US). Yet, workers only earn \$8,16 instead of \$25,83, thus the employer deliberately retains \$17,67, which constitutes the greater part of the surplus value that legitimately belongs to Brazil workers, according to TLWNSI’s concept.
- In this way, the second pie chart shows how the employer retains inappropriately 68% of labour’s surplus value, or more than two-thirds, or labour share of income, by only allocating to the worker 32% of what he/she is entitled to.



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

- Nominal wage rate earned
- Difference inappropriately retained by the employer

Sources: WB, U.S. BLS, TCB, IOLW

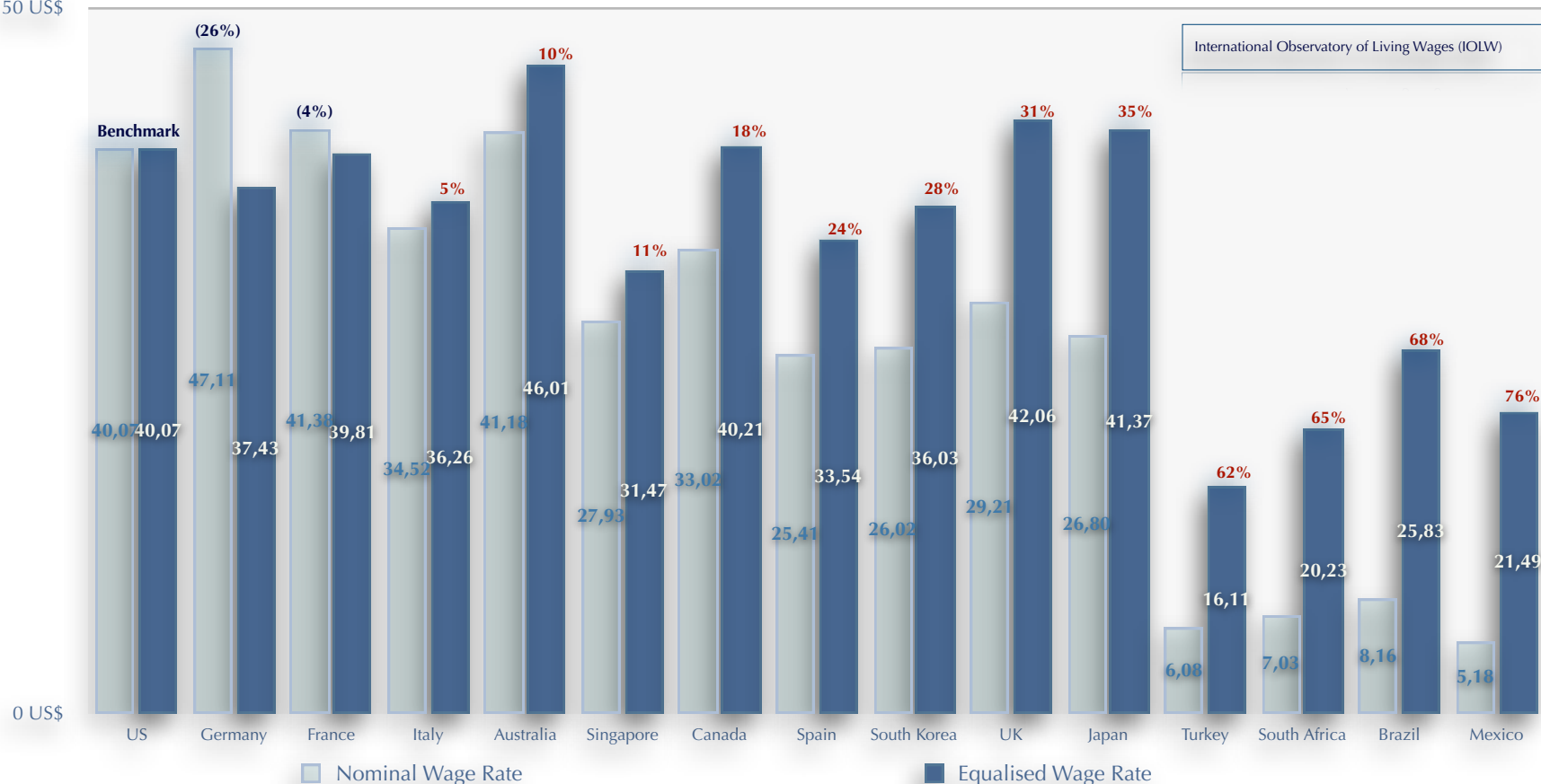
Living wage rate gap comparisons for selected economies:

- **Our 2018 assessment reports divergent outcomes among selected economies that were predominantly the result of a meaningful increase of hourly wages in local currency (or lack of it), exchange rates and changes in their PPP cost of living vis-à-vis the 1,8% increase of the US hourly wage rate in manufacturing. Six economies: France, Germany, Italy, South Korea, Singapore and Australia improved their equalisation index (Eq-Idx) compared to 2017. Canada, United Kingdom, Spain and Turkey lost ground, whilst Brazil, Mexico, Japan and South Africa experienced no change (for the complete detail, see [Table T5 starting on page 30](#)).**
- Specifically for the Americas, 2018 is a year exhibiting clear setbacks or stagnations in living-wage equalisation for the four economies, with a dramatic loss for Argentina, also a loss for Canada and no change for Brazil and Mexico in their equalisation indices (Eq-Idx) with comparable US hourly rates in manufacturing. As shown in the chart on [page 11](#), Argentina, Brazil and Mexico, as well as South Africa have the greatest gaps between nominal and equalised wage rates with US wage rates using PPPs for private consumption and have made little progress over the years.
- After Brazil widened its manufacturing wage gap in 2014 and 2016, due to the devaluation of its currency since 2010 under a sustained recession, it managed to remain stable in 2017 and 2018, despite the fact that the neoliberal government of Michele Temer passed a law that put a freeze on public spending effectively ending compliance with the minimum wage appreciation law. Minimum wage policy serves as an indicator for all other wages and directly influences manufacturing wages. As a result, with an inflation rate of 3,4% in 2018, the manufacturing hourly rate increased 2,3% in local currency units, effectively dropping in real terms. As for the nominal hourly rate in US dollars, Brazil rate dropped 10,6% in 2018 primarily due to the devaluation of the real by 12,7%. This made the PPP cost of living drop 11,6%, thus offsetting any change in the 32 Eq-Idx, equivalent to a gap of 68%.
- Beyond the context of this analysis, we must realise that capitalism of any kind is incompatible with the purpose of a truly democratic ethos, which is the procurement of the welfare of all ranks of society and the sustainability of the planet. Thus, under the current system this purpose will never take place and, therefore, there is no reason to regard improvements in manufacturing wage rates or minimum wages as positive signs of what we can expect in the coming years. Unless people realise that we need to force a new radical social contract that wholly replaces the capitalist system, we will expect more inequality, environmental depredation and the unsustainability of life on our planet. We are running out of time globally, because the capitalist system is completely unsustainable and we are already on the brink of being unable to secure the survival of all living things. There is an enormous amount of scientific research that provides incontestable proof to this reality, including stark changes in the climate and pandemics such as the present COVID-19 that we are enduring. Given this ominous situation, demand-side and other socially-oriented policies will lose any meaning as we reach a tipping point of no repentance and no return when future generations will no longer have a chance, as the planet increasingly reacts in ways that no longer provide the conditions indispensable for life as we know it. Unless we replace the current system, life on our planet will reach its demise as the result of the ecological rift produced by our anthropocentric era.

2018 gaps between nominal and equalised wage rates with US wage rates using PPPs for private consumption

(Total hourly manufacturing compensation costs in US dollars – US is benchmark)

50 US\$



International Observatory of Living Wages (IOLW)

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

- 1) If lighter bar is greater than darker bar= Nominal wage rate is superior to rate required to be at par with U.S.
 - 2) If darker bar is greater than lighter bar= Nominal wage rate 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 nominal wage rate is superior to rate required to be at par with U.S.. Comparisons are in terms of hourly compensation costs as explained in T5.)

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

- The Jus Semper Global Alliance: Living Wage Gaps Analysis in the manufacturing sector using:
- The Living Wages North and South Initiative (TLWNSI) using "Equal Pay for Work of Equal Value" Methodology.
- × Database of World Bank's World Development Indicators, 1975-2019.
- × U.S. Bureau of Labor Statistics, August 2013 and The Conference Board (TCB), International Labor Comparisons Program - Manufacturing Hourly Compensation Costs, February 2018.
- × The Conference Board (TCB) — International Comparisons of Manufacturing Productivity and Unit Labor Costs 2018, December 2019
- Purchasing Power Parities and Real Expenditures of World Economies. Summary of Results and Findings of the 2011 International Comparison Program. World Bank 2014.

Main features of minimum wage rates and manufacturing wage rate equalisation in Brazil

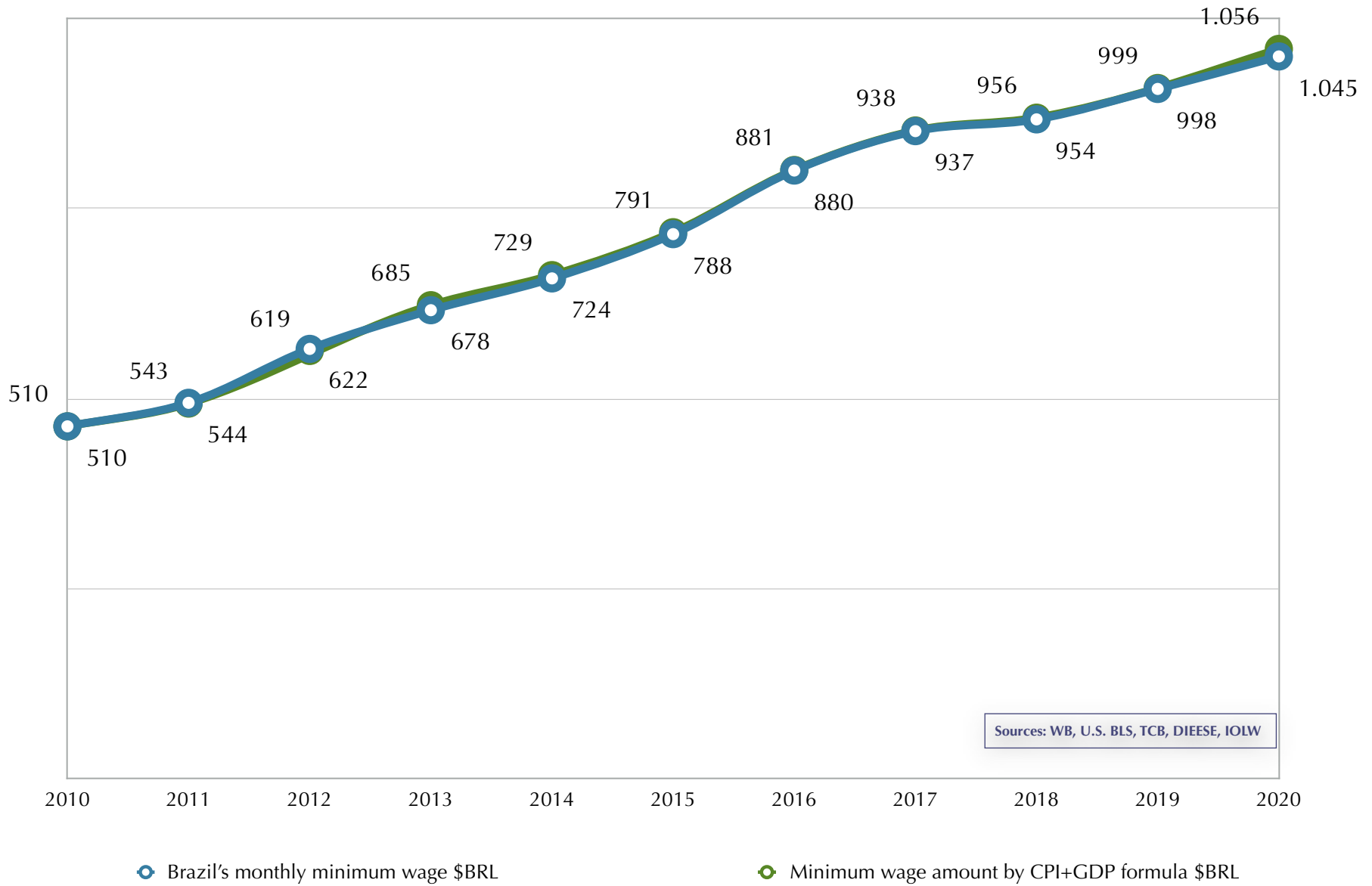
Temer's supply-side economic policies that continues with Bolsonaro's government, have stopped any effort to improve the labour's share of income and clearly reflect a policy of deliberate wage contention. Temer's government passed a new law (PEC 55) that freezes all public spending for 20 years, which implies that constitutionally-protected government expenditures in the areas of health, education and other social sectors would remain stunted until 2036. This has ended Brazil's commitment to sustain its minimum wage appreciation policy, after the minimum wage had more than doubled in real terms since 1996. As for manufacturing wages, they actually lost ground since 1996, which partially recovered from the recession at the start of the century, until the minimum wage appreciation policy had a positive influence from 2010 onwards that is now receding once again. Yet, with a renewed recession during the 2014-2016 period, that only began to subside in 2017 and will fall back into a deep recession due to the ongoing COVID-19 pandemic, and the staunchly neoliberal and predatory supply-side approach followed by Bolsonaro's government, Brazil will not resume any gains in real terms from a domestic perspective nor will it resume the closing of its Eq-Idx, from a global perspective, for the foreseeable future. In fact, it is likely to actually increase its equalisation gap with comparative wages in the US in the coming years.

- **Domestic Perspective:** Brazil's wage policy was redefined with its 2010 legally-binding wage-appreciation plan to annually raise the real minimum wage above inflation. The plan was scheduled to continue until 2023 by following the simple formula of increasing the wage rate by adding the rate of GDP growth for the year two years prior to the inflation rate of the previous year. If GDP did not increase or actually dropped, only CPI inflation was considered. This policy was instituted by various legislation bills, but in practice the annual increases to the minimum wage were determined by decrees. The annual increases largely followed the formula of GDP plus the inflation rate, even with the Temer government, for there was no GDP growth. Hence, the gap between the actual nominal increases and the formula is of only 11 \$BRL (reales), equivalent to 1% less than the formula by 2020, as can be observed in the chart on [page 14](#), because 2020 is the first year when the minimum wage did not incorporate the GDP growth. Hence, the actual increase was 4,7% instead of 5,8% in 2020.
- **Minimum Wage:** Regardless of such policy, the minimum wage in Brazil has been consistently increased above inflation. Indeed, between 1996 and 2020, the monthly minimum wage increased in nominal terms an average of 10,1% versus 6,3% for the consumer price index (CPI), equivalent to 3,8% points above the CPI, or (\$BRL of 1045 vs 593 for CPI). Even during the 2017-2019 period of the Temer government, the minimum wage was increased an average of 4,3% versus 4% for the CPI, equivalent to 0,3% points above the CPI. With Bolsonaro, the increase for 2020, was 4,7% versus 4,5% for the CPI. In this way, as can be observed in the chart on [page 15](#), overall minimum wages have increased exponentially from \$BRL 112 to \$BRL 1045 between 1996 and 2020, whereas if they were increased only at the same rate as the CPI, they would have increased to only \$BRL 593. This is equivalent to a gain of 115% in real terms from their 1996 level. Although support for the minimum wage appreciation policy rendered a powerful gain in real terms for the period relative to CPI inflation, the gap between the minimum wage and the cost of the Basic Food Basket (BFB) narrowed very substantially, but not at the extent the CPI did. Indeed, the minimum wage increased in real terms, relative to the BFB, by 64% during the same period, as shown on [page 16](#). As a result, whereas a worker would need to earn 7,2 minimum wages in 1996 to buy the BFB, it needs 4,34 minimum wages to afford it in 2020. By the same token, the Temer government increased the minimum wages slightly below the formula, except for 2019, when the minimum wage was clearly increased above inflation. It should be noted that for the 2017 and 2018 increases the GDP of two years prior was not incorporated for it was negative (-3,55% for 2015 and -3,31% for 2016). The 115% gain in real terms since 1996 had a rather positive result for the labour' share of income. According to DIEESE, the labour's share of income increased from 31,8% in 2000 to 35,1% in 2017 (DIEESE: Nota Técnica: Salário Mínimo: pela manutenção da valorização! — Número 218 Versão original de 12/2019 Revisada em 16/01/2020). As for the Bolsonaro government, it is expected to contain any wage increase in real terms and, in the best case, increase the minimum wage in line with the CPI.
- **Manufacturing wage:** In great contrast, the behaviour of manufacturing wages is starkly different. Hourly manufacturing wage rates increased only 4% between 1996 and 2019 relative to CPI inflation. In 1996, the hourly wage rate index was 82 versus CPI, equivalent to an increase of only 82% of what was required to keep up with inflation. As shown in the graph on [page 17](#), this index dropped substantially to only 68 in 2003, to then gradually recover some of the ground lost, it reached its peak of 91 in 2014 and then gradually stabilised in the mid 80s, ending up at 85 in 2019. In other words, hourly manufacturing wages in Brazil increased, in local currency, barely above inflation, growing annually in nominal terms an average of 6,6% versus 6,5% for the CPI, equivalent to 0,1% points above the CPI during the entire 1996-2019 period or from an 82 to an 85 index. In fact, as [shown on page 17](#), there has always been a gap between the nominal wage rate in manufacturing and the wage rate if increased in line with the CPI inflation. That is, in 1996, the monthly wage rate in local currency was \$BRL 1232 versus \$BRL 1503 if increased in line with CPI. In 2019, the relationship is \$BRL 5274 versus \$BRL 6242 if it had been adjusted in line with inflation. Moreover, given that inflation relative to the Basic Food Basket is greater than the CPI inflation, the hourly manufacturing wage rate in Brazil actually lost value relative to its affordability of the BFB. As [shown on page 18](#), in 1996, workers required 65% of the monthly hourly wage rate in manufacturing to afford the BFB, whereas in 2019, it takes 75% of the monthly wage rate to afford the same BFB. The chart, clearly shows how affordability of the food basket has decreased by 15% during the 24 year period.

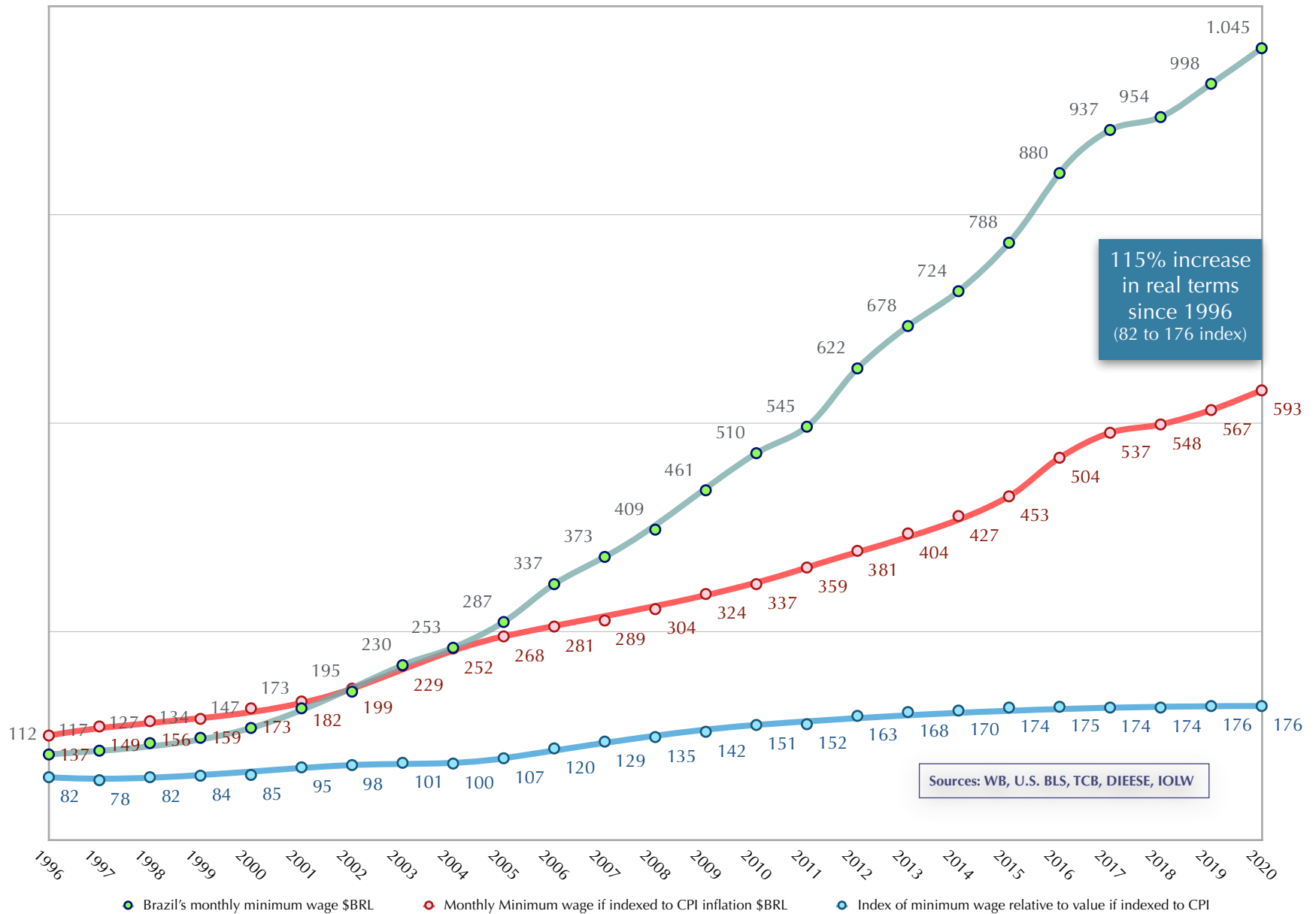
Main features of the state of manufacturing wage rate equalisation in Brazil

- **The Global Perspective:** Assessing the trend followed by hourly wage rates for all employed in manufacturing—from a global perspective—in terms of their equalisation with comparative US wages, 1996 shows Brazil's position, just before the crisis, with a 34 Equalisation Index (Eq-Idx) (using private consumption PPPs), as shown in the chart in page 21. The Eq-Idx subsequently dropped to as low as 26 in 2003 as a result of Brazil's economic recession at the turn of the century, with the exchange rate dropping 67%, when the Eq-Idx reached its nadir of 26. As the economy recovered, the exchange rate recovered by 50% (2012), the Eq-Idx also slowly recovered, and, after 2010, once the minimum wage recovery plan was implemented, the Eq-Idx in the manufacturing sector reached its best position in 2012 (37). However, a series of steep devaluations of 9% in 2013, 8% in 2014, a deep collapse of Brazil's Real (BR) of 29,3% in 2015 and a drop of 4,7% in 2016, produced a total decline of 44,1% of Brazil's currency since 2012. This made the Eq-Idx drop to 32 in 2016. In 2017 the BRL revalued 9,4% but dropped again 12,7% in 2018 and 7,4% in 2019. Yet, despite the steep and recurrent devaluations, inflation has not exploded as it did in previous crises in the last century, recording, according to DIESSE, a CPI of: 6,2% in 2012, 5,6% in 2013, 6,2% in 2014, 11,3% in 2015, 6,6% in 2016, 2,1% in 2017, 3,3% in 2018, and 4,5% in 2019. Thus, inflation appears to be under control after two decades of volatile behaviour. This has allowed the manufacturing hourly wage rates to stop a further erosion, an stabilising in the low 30s Eq-Idx.
- In summary, as shown in the chart on page 19, for the entire 24-year period (1996-2018), living wage equalisation of manufacturing hourly wages have not made any improvement whatsoever, and they are slightly lower than in 1996. The hourly rates recovered gradually after the turn of the century recession but by 2018 their equalisation with equivalent US wages are down to a 32 index relative to the 34 index of 1996. Our estimate for 2019, indicates that their Eq-Idx would drop to 31 as the result of a meagre 2% increase estimate in local currency, the actual 7,4% erosion of the BRL and a 1,9% increase of the PPP cost of living in local currency. The compounding effect of Bolsonaro's government predatory economic policy that is clearly anti-labour and the COVID-19 pandemic, make any change for the better rather unlikely for the foreseeable future. Hence, the prospect for living wage equalisation appears grim.
- From a technical perspective, the biggest obstacles to sustaining the closure of the wage rate gap are the PPP cost of living and GDP growth. In 1996 the PPP cost of living for private consumption was \$0,94 dollars or 94% the US cost of living. Then, at the deepest point of Brazil's recession, the PPP had dropped to \$0,40 in 2002. Subsequently, Brazil's recovery made the cost of living extremely expensive again, to the point that by 2011 Brazil had become as expensive as the U.S, with a PPP cost of living of \$0,99 or 99% the US cost of living. The combination of the BRL's devaluation and a relatively tamed inflation ensued a steep drop of the PPPs (in US dollars) by dropping to \$0,63 in 2015, and steering slightly up again to \$0,64 in 2016, \$0,73 in 2017 and down again to \$0,64 in 2018 and to \$0,61 in 2019. The higher the PPP, the higher the equalisation wage rate required. If the PPP is 99% of the US rate, then the nominal Brazilian wage rate required in US dollars, to be fully equalised with the US wage rate, must be 99% of the US wage rate. If inflation is higher than in the US and the BRL's value is sustained, the PPP will grow and viceversa. Exchange rates have a direct bearing on the PPP. Equalisation depends on the combined behaviour of wage rates and PPPs. As previously explained, the PPP is the rate of currency conversion that equalises the purchasing power of currencies. Thus, it acts as the estimated effective exchange rate used to reflect the real cost of living in a given country. The factors directly affecting the PPP are the NCPI (inflation rate) and the exchange rate.
- For the entire 1996-2018 period, Brazil's hourly wage rate in dollar terms increased 15,4% in nominal terms and 67,9% in PPP terms. But the equalisation index is down nearly 6% after twenty-two years, because the US hourly rate increased 78,4% during the same period (for further detail see table T5 on page 30).
- For Brazil to consistently reduce its living wage gap to equalise real wages with those of its US counterparts for all employed in manufacturing, it must put inflation in check (below 5%) and continue to increase nominal wages above inflation rates. Concurrently, Brazil must recover its momentum and resume good economic growth rates of at least 3 to 4% of the annual GDP. Between 2002 and 2005 Brazil averaged a 3,3% GDP; for the 2006-10 period it averaged a 4,5% GDP growth, and between 2011 and 2014 it averaged a 2,3% growth. However, GDP dropped in 2015 to -3,6%, -3,3% in 2016 and is now barely beginning to recover recording 1,1% in 2017, 1,2% in 2018, and 1,1% GDP in 2019. It will almost be impossible for Brazil to improve its manufacturing equalisation index with equivalent US wages unless it resumes economic growth and keeps inflation in check, even if the hourly wage rate increases in nominal terms.
- Lastly, with the Bolsonaro government adamantly against increasing the labour share of income, the picture for the coming years appears to be of a decrease in real terms of both minimum wages and manufacturing hourly rates and consequently of living wage equalisation in manufacturing from a global perspective. And, once again, the COVID-19 pandemic is further complicating the outlook for any progress for a living wages worldwide and equalisation for equal pay for equal work of equal value in the manufacturing sector. Hence the outlook for manufacturing wage equalisation in Brazil, with the Bolsonaro and COVID factors combined, embodies an extreme conundrum.

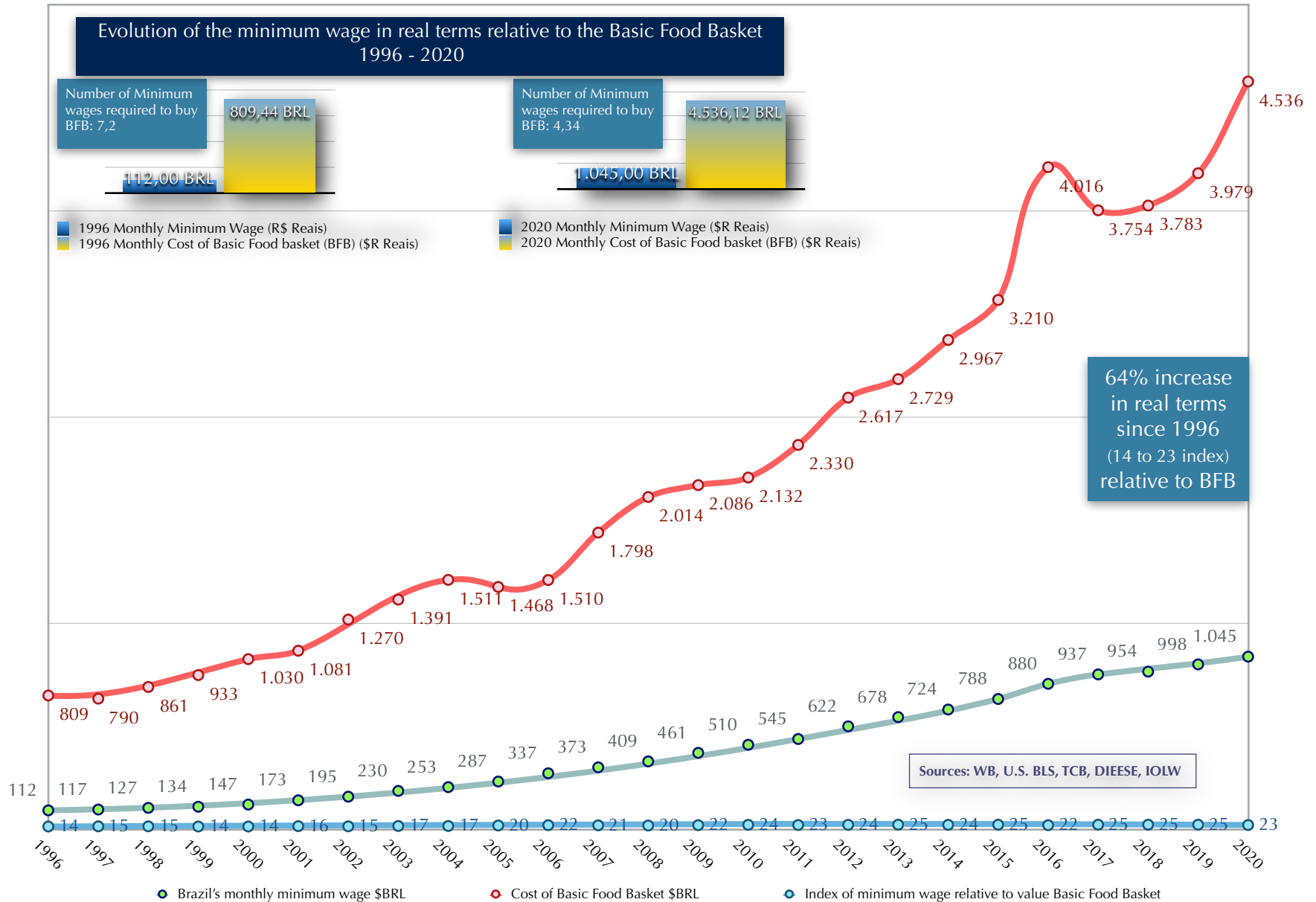
Gap between actual monthly minimum wage and minimum wage as per CPI+GDP formula



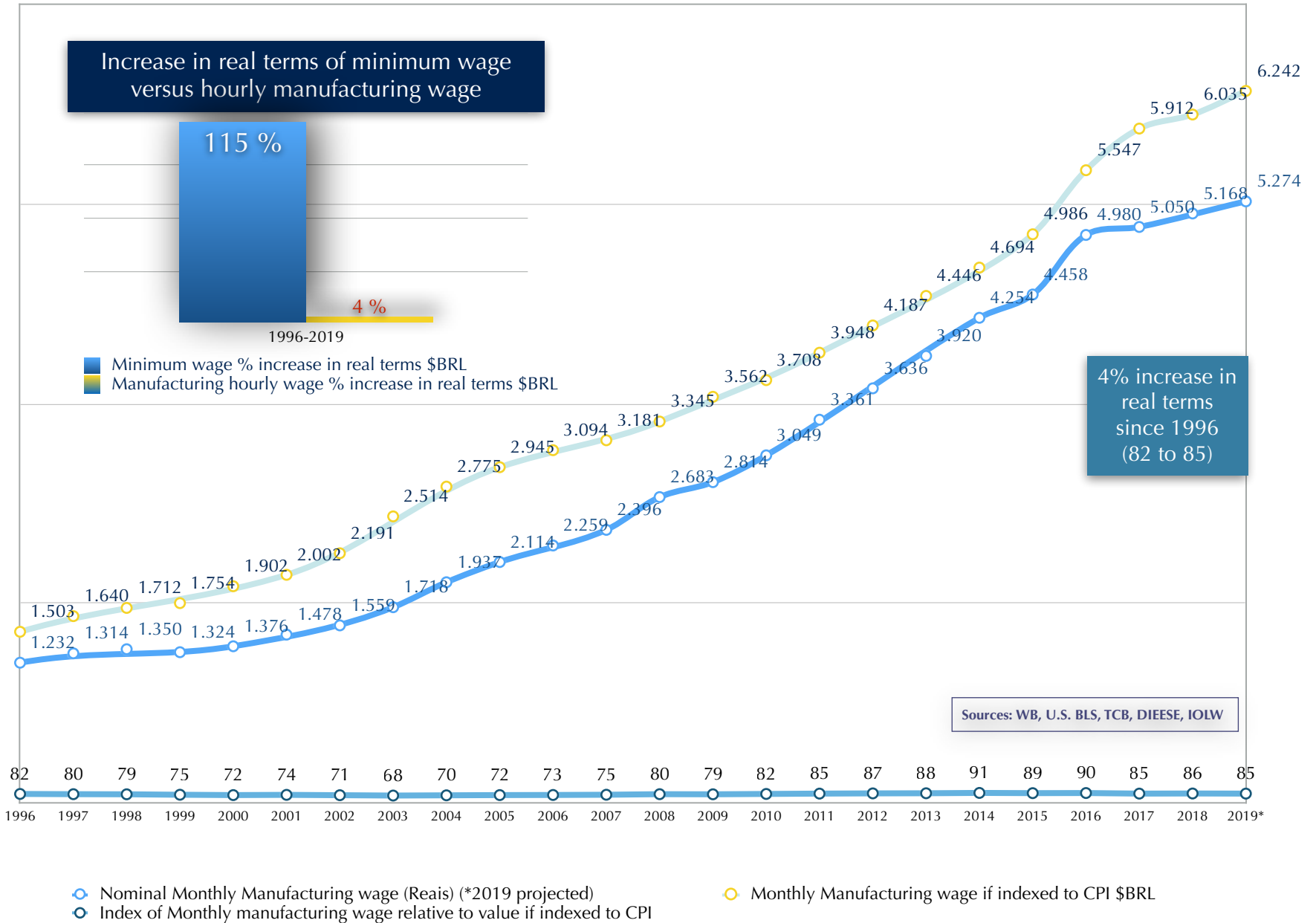
Evolution of minimum wage in real terms relative to value if indexed to CPI



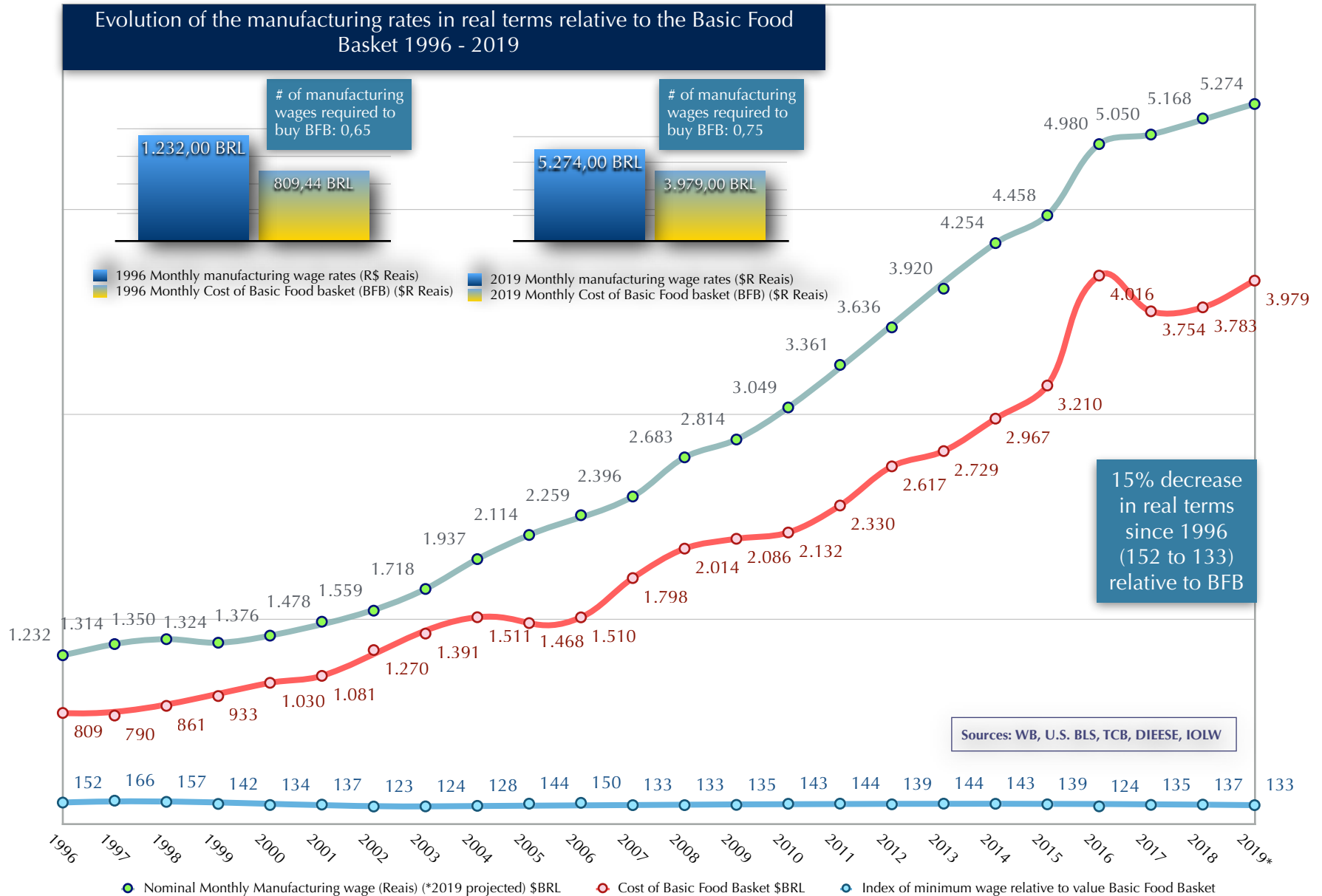
Evolution of minimum wage in real terms relative to Basic Food Basket



Evolution of manufacturing wage rates in nominal and real terms in local currency relative to CPI

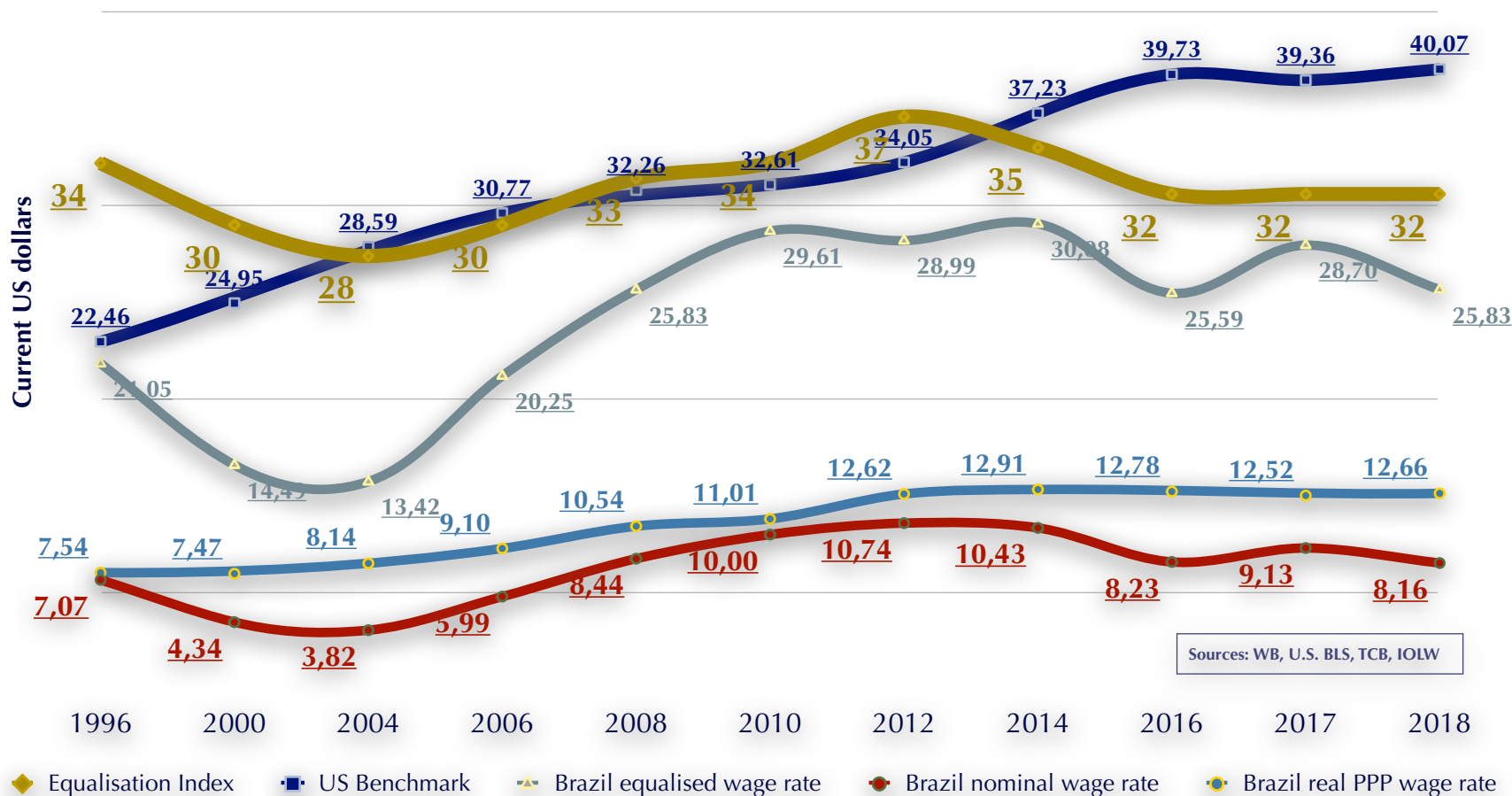


Evolution of manufacturing wage in nominal and real terms relative to Basic Food Basket



Equalisation Index with US Manufacturing Real Hourly Wage Rates via PPPs

The chart below provides a complete illustration of the behaviour of Brazil's manufacturing wage rates vis-à-vis US wage rates since 1996. Between 1996 and 2004, the US hourly wage rate increased 27%, but Brazil's nominal rate dropped by 46% whilst its equalised nominal rate dropped by 36%. As a result, the Eq-Idx dropped from 34 to 28. Then, between 2004 and 2016, the US rate grew 39%, Brazil's nominal rate increased 115% and its equalised rate grew by 91%. Consequently, the Eq-Idx improved four points since 2002, but remained two points below its 1996 Eq-Idx and has remained at 32 in 2017 and 2018. This is explained by the fact that Brazil's real wage rate increased 67,9% between 1996 and 2018, which is lower than the 78,4% that the US wage rate increased during the same time period. Yet, if inflation had been kept in check to reduce the PPP cost of living, and with GDP growing at least 3-4%, Brazil should have been able to resume and sustain the growth of its equalisation index (for further detail see table T5 on page 30). This is no longer possible for the foreseeable future.



Gap between hourly nominal and equalised wage rates in PPP terms for all employed in manufacturing (current dollars)

40 US\$

Brazil's gap between hourly nominal and equalised wage rates in PPP terms has gradually widened from 2004 onwards.

30 US\$

20 US\$

10 US\$

0 US\$

Size of gap between nominal and equalised wage rates

Sources: WB, U.S. BLS, TCB, DIEESE, IOLW

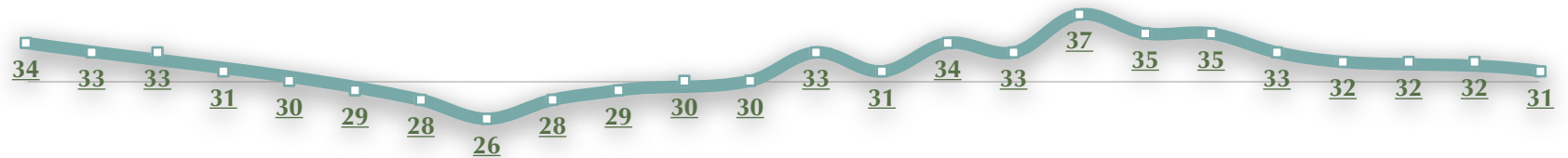
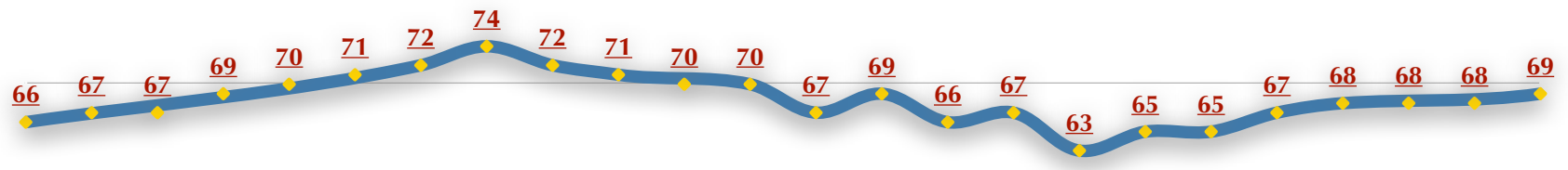
1996 2000 2004 2006 2008 2010 2012 2014 2016 2017 2018

◆ Brazil equalised wage rate

■ Brazil nominal wage rate

Gap between equalisation index and size of manufacturing hourly real wage rate gap in Brazil vis-à-vis US real wage rate

After some improvement since 2003, Brazil's wage equalisation index decreased since 2013 and is now lower than in



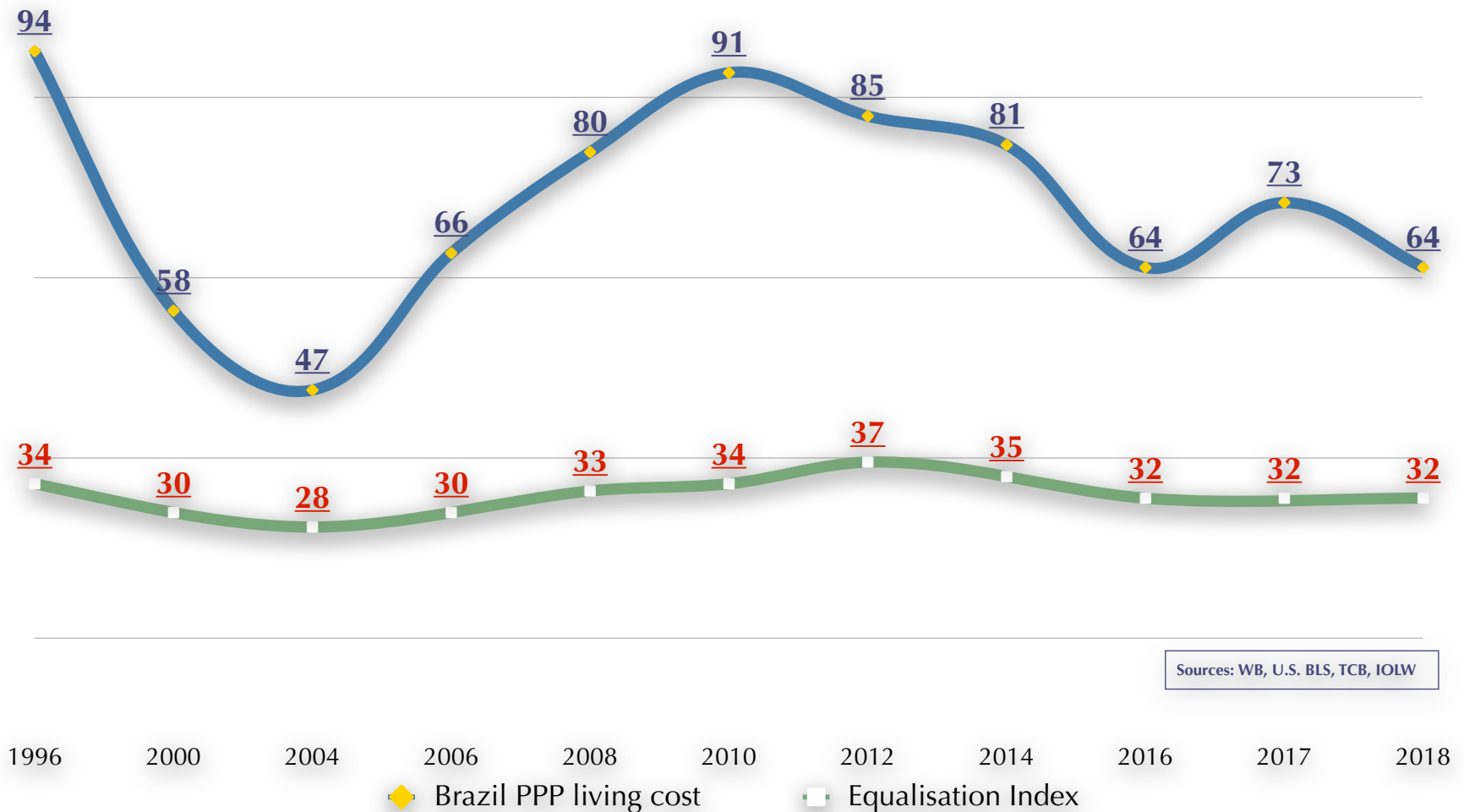
Sources: WB, U.S. BLS, TCB, IOLW
 Note: 2019 is only a projection.

1996 97 98 99 2000 01 02 03 04 05 06 07 08 09 2010 11 12 13 14 15 16 17 18 2019

◆ Size of Gap □ Equalisation Index

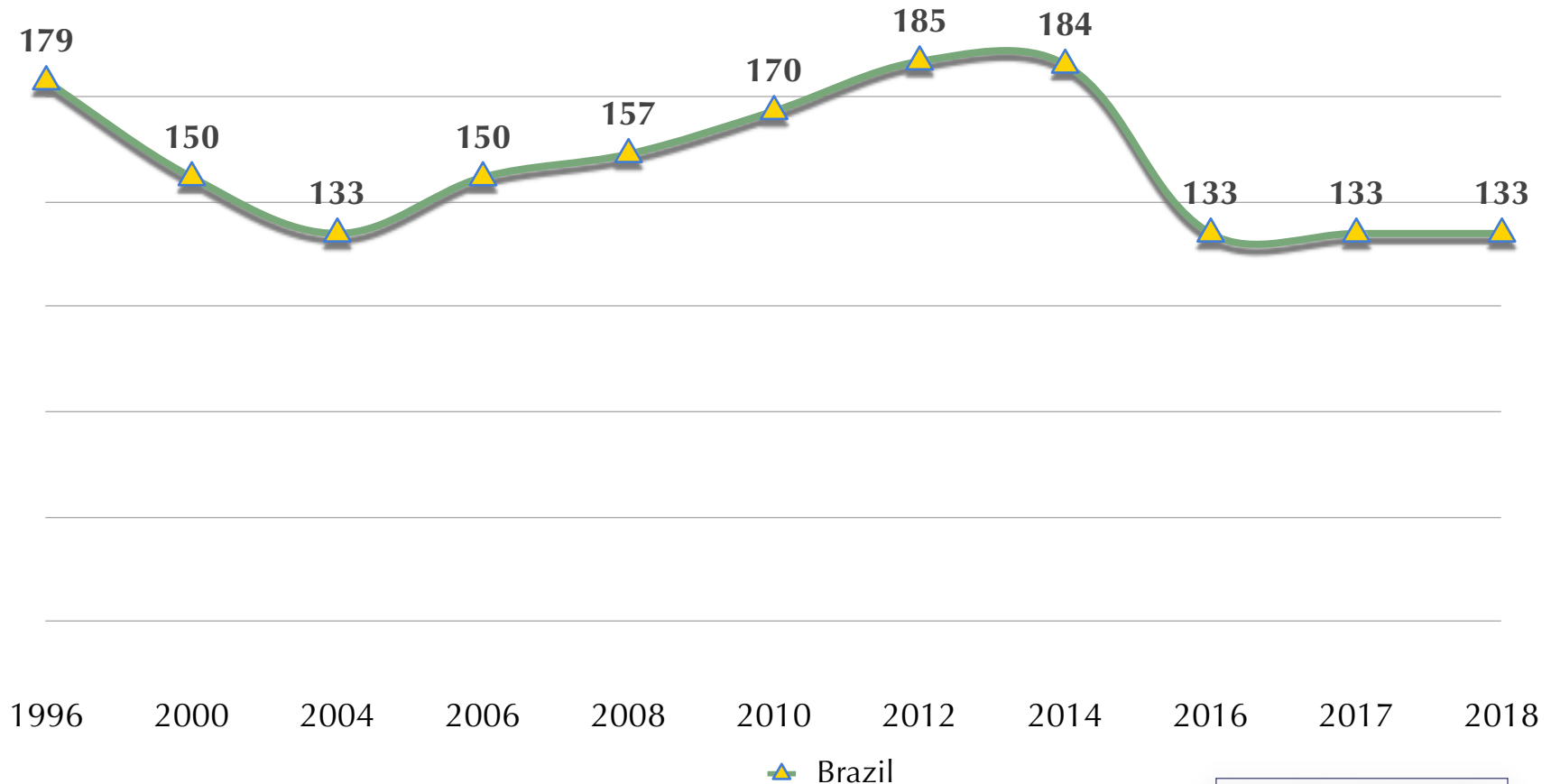
Performance of equalisation indices of Brazil's PPP manufacturing hourly real wage rate vis-à-vis US counterparts and behaviour of Brazil's purchasing power parity indices (cost of living in PPP terms – US= 100)

From 2002 onwards, Brazil experienced a sharp increase in its cost of living due to a sustained growth of inflation, which began to drop in 2012. The NCPI averaged 6,4% between 2002 and 2018, whilst it averaged 2,1% in the US. The PPP increased on average 2,7% for the same period. Every increase in the PPP increases Brazil's equalised nominal wage rate vis-à-vis the US. To sustain equalisation, Brazil's PPP must decrease with lower inflation rates—or at least not grow at even higher rates—and real wage rate growth must be sustained.



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

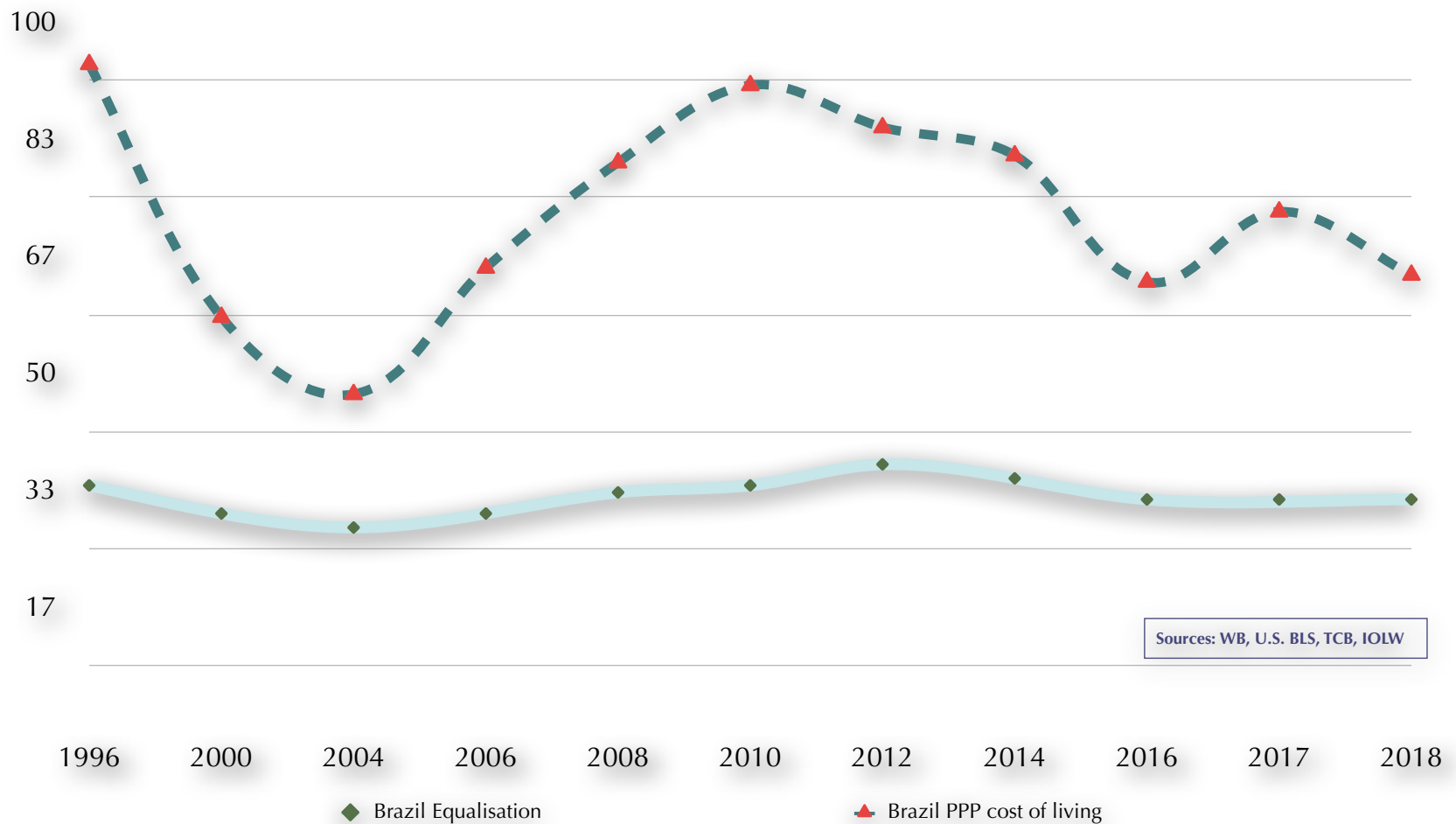
When comparing Brazil's manufacturing sector real wage rate Eq-Idx with Mexico's, the second largest economy in Iberian America, the former amounted to 1,79 times the value of the latter in 1996 to then drop 26% at the lowest point of its recession in 2002. Subsequently, Brazil's manufacturing wage rates Eq-Idx recovered to gain 38% in value vis-à-vis Mexico's Eq-Idx, but then it dropped once again by 28%, remaining at the same level since 2016.



Sources: WB, U.S. BLS, TCB, IOLW

Performance of Brazil's equalisation indices of PPP manufacturing hourly real wage rates and behaviour of purchasing power parity indices (cost of living in PPP terms – US= 100)

Despite the steep increase of Brazil's PPP cost of living from 2002, its equalisation index recovers to 1996 levels, up to 2012. But then it stabilises 2 points below its 1996 Eq-Idx regardless of the gradual declines of its PPP cost of living.



Projection of the closing of the real wage rate equalisation gap

- **Projection of real wage rate equalisation for all employed in the manufacturing sector between Brazil and the United States in the term of thirty years or less, 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 to increase the minimum wage in real terms in a very meaningful way. This would influence manufacturing wages not just with their return to their 2012 level –when they recorded their best position vis-à-vis the US– 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. 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 in the minimum wage puts pressure to increase all other wage racks. 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. According to DIEESE, the labour's share of income increased from 31,8% in 2000 to 35,1% in 2017 (DIEESE: Nota Técnica: Salário Mínimo: pela manutenção da valorização! — Número 218 Versão original de 12/2019 Revisada em 16/01/2020).
- In 2010, Brazil's government sent to Congress 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 specific formula used by Brazil is the sum of the national consumer price index (NCPI) plus the variation of the GDP recorded for the year 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%. A negative GDP is not taken into account. Given that these nominal increases are much larger than average wage increases in the US (of 3% or less), living wage equalisation was bound to improve substantially as long as inflation was maintained below a ceiling of 5% in general. This did not happen during the minimum wage appreciation policy period of 2010-2019 except for the last three years, when inflation was bellow 5%. For the minimum wage, nonetheless, the combined nominal increase in local currency for the 2010-2018 period is now of **106,9%**, a yearly average of **11,9%** while the NCPI's combined growth was of 72,7%, a yearly average of 8,1%, or 3,8 percentage points more in real terms, and the increase in US dollars for the same period is 13%. As for Brazilians employed in manufacturing, the combined nominal wage rate increase for the 2010-18 period in local currency is **83,6%**, a yearly average of **9,3%** or 1,2 percentage points more in real terms, but only 0,5% in US dollars. In this way, in real terms, the increase of the minimum wage for the 2010-2018 period is **34,2%** in local currency, whilst the increase of the manufacturing wage rate is **10,9%** in local currency. In PPP cost of living terms for private consumption, however, manufacturing wages increased only 20,6% for the same period. This means that manufacturing wages increased in real terms during Brazil's appreciation policy period, but substantially less than the minimum wage and, as we have observed on [page 18](#), they lost ground against the Basic Food Basket. Moreover, they also lost ground in equalisation relative to comparative US wages, for its growth was not powerful enough to overcome the fluctuations of exchange rates and PPP costs of living during that period.
- 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 under the principle of equal pay for equal work of equal value. This assessment reiterates that if and only if Brazil is able to resume economic growth at the rate of at least 3-4% per annum and keep inflation below 5% annually, it would need, at the very least, twenty-three years (2019 - 2041), as is indicated ahead. This of course is no longer the plan since 2017, and it is impossible to foresee what will happen given the current political crisis that has ensued in Brazil, with the compounded effect of the ultra far right Bolsonaro government and the COVID-19 pandemic. Nonetheless, we are projecting what would happen in a scenario where economic policy would still be supporting the increase of labour's share of income —by increasing real minimum wages— to show the nominal and real wage increases required to equalise manufacturing wages with equivalent US wages in PPP terms for private consumption in the time span of not more than thirty years.

Projection of the closing of the real wage rate equalisation gap

- **Affinity with TLWNSI's concept.** Brazil's wage appreciation concept used two criteria that are quite similar to TLWNSI's criteria. In order to determine the increase to be applied to the minimum wage, this policy uses the sum of the inflation index, or (NCPI), of the immediately preceding year and the growth of GDP recorded for the year 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 so-called developing countries with their US 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. There is one weakness in the Brazilian criteria, however, which is that if there is no GDP growth, then there is no real wage growth. For the mid-term future, unless Brazil changes its criteria to increase labour's share of income by increasing the minimum wage in real terms to at least 3-5% above inflation, regardless of GDP, real wages in general and the equalisation of manufacturing wages in particular will remain stagnant.
- **Projection layout.** Using as benchmarks all employed in manufacturing wage rates for Brazil and the US in 2018, following is a twenty-three year projection for the equalisation of Brazilian real wages with those of their US counterparts. The projection makes the assumption that the Brazilian State keeps increasing minimum wages annually as if its minimum wage appreciation policy would still be in place. Parting from our analysis in this report, the assumption is made that real wages for workers in all sectors of the economy will increase in real terms if the Brazilian State increases the minimum wage above inflation even without GDP growth.
- The purpose of this projection is to assess with precision the number of years that would be required to reach wage equalisation with equivalent wage in the United States in the manufacturing sector. The assumption is made that the minimum wage is consistently raised in real terms, putting pressure in all other wage racks and that future government would make it its policy to close the enormous gaps in compensation in the manufacturing sector for equal work of equal value, in the context of globalised markets, where Brazilian workers are fully incorporated in the global supply chains of transnational corporations. The projection assumes that Brazil increases the minimum wage in real terms by several percentage points annually in real terms, regardless of its GDP performance.
- The projection assumes that the start of the Brazilian plan takes place in 2019. Hence the benchmark used is the wage rate recorded for 2018 for all workers employed in the manufacturing sector. As in the case of all previous charts, the analysis uses as its source the nominal wage rate data reported previously by the US Department of Labour, The Conference Board and the IOLW using the same methodology and sources. Moreover, to calculate the cost of living and the size of the wage rate 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 PPP for private consumption for Brazil, generated by the World Bank's economic indicators database.

Projection of the closing of the real wage rate equalisation gap

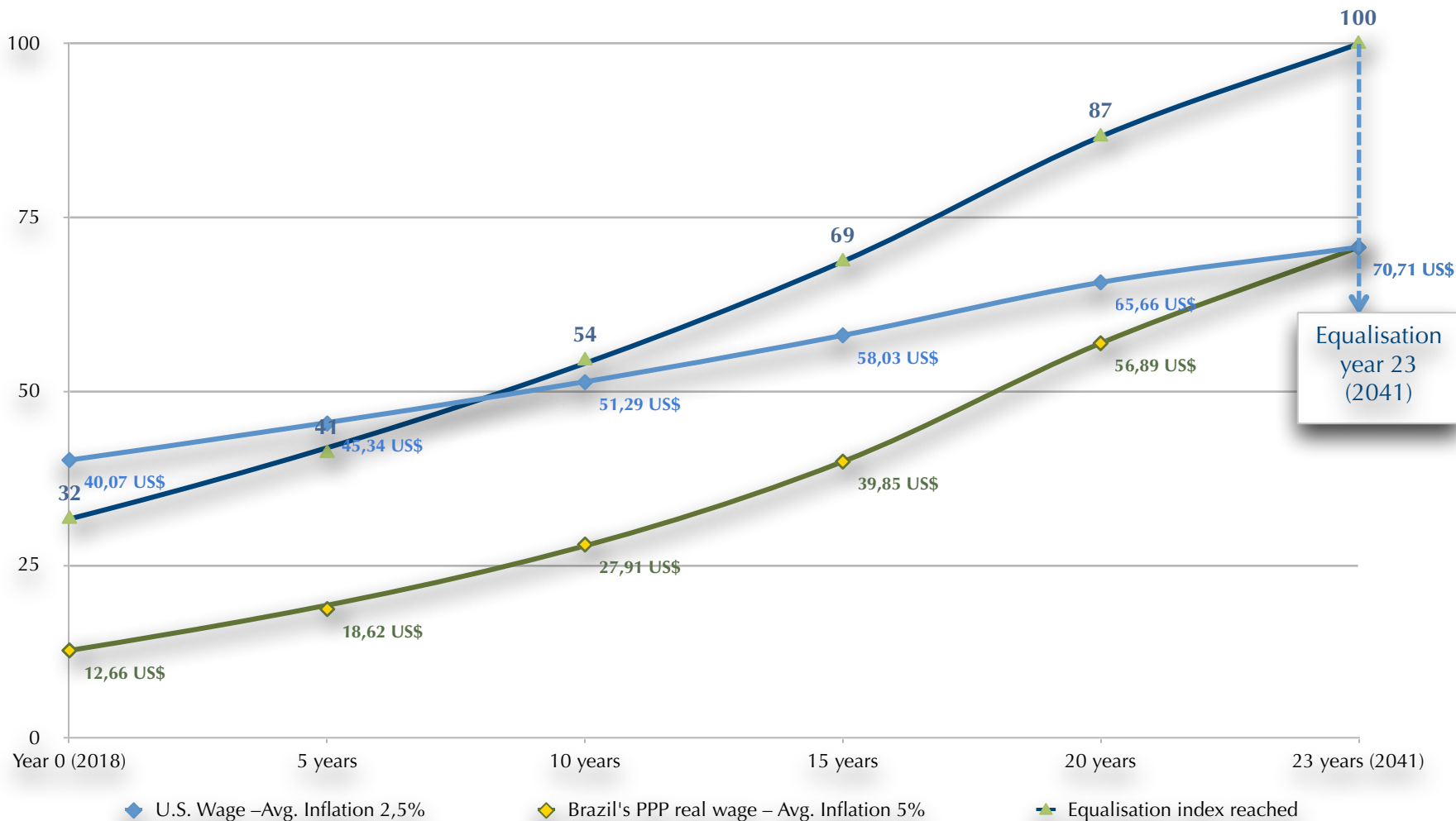
▪ Criteria applied in the projection:

- ➔ Average US inflation: 2,5%, (average of 1,8% between 2010 and 2019).
- ➔ Average Brazilian inflation: 5% for the entire term of the projection, (average of 6,4% between 1996 and 2019).
- ➔ Brazil's average GDP growth: 5%, (average of 1,4% between 2010 and 2019).
- ➔ Average nominal increase of Brazilian wages in local currency of 10,% for 22 years and for 10,4% the last year.
- ➔ Exchange rates applied include a 7,4% devaluation for 2019, 25% for 2020 and 5% thereafter for every year. The average local currency yearly devaluation was 5,8% between 2010 and 2019.
- ➔ Inflation rates of 4,5% for 2019 and 2,4% for 2020 are already incorporated into the projection and a 5% inflation rate is assumed thereafter.
- ➔ Real value of wages in the US remains constant, increasing 2,5% annually their nominal value to neutralise inflation. US nominal manufacturing hourly wage rates have increased an average of 2,4% between 2010 and 2019, about 0,6% above CPI inflation.
- ➔ The benchmarks—and starting point—used in this projection are the real PPP manufacturing wage rates for both economies for the year 2018 (Brazil: \$12,66 and United States: \$40,07) and nominal rates (Brazil: \$8,16 and United States: \$40,07). This projection covers the 2019 to 2041 span of time.
- ➔ The projection is entirely estimated in US dollars. Inflation is accounted for through the World Bank's PPPs conversion factor for private consumption, and then projected to increase an annual average of 5% in US dollars. PPPs are the rates of currency conversion that eliminate the differences in price levels between countries.

▪ Results of the twenty-three year projection:

- ➔ This projection at no time pretends to forecast what would be the inflationary indices, exchange rates or the rates of wage rate increases that will occur in Brazil or the US in the future. For this projection, the average behaviour of these indicators has been established by making assumptions in a discretionary manner—based on the data recorded in the last few years—with the only purpose of projecting what would be the level of nominal wage rate increase, the equalisation indices and the time span for equalisation in the context of Brazil supporting the appreciation of real wages and the increase of labour's share of income as fundamental elements of its economic policies.
- ➔ 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,% for a total of 22 years—for a real wage annual increment of 5% in real terms. For year 23, a slightly higher rate of 10,4% increase is needed to achieve 100% equalisation.
- ➔ In this way, wage equalisation with the US would take 23 years of real wage increments, at this pace, to be fulfilled. A slower pace would evidently require more than twenty-three years.
- ➔ Once full equalisation is achieved, nominal wages in Brazil are only increased at the same pace of inflation, so as to maintain their real value and the parity already equalised with the wages of their US counterparts, assuming that US wages keep increasing at the same rate. If they are not, the rate to be increased must be adjusted accordingly.
- ➔ Evidently, to achieve this goal, Brazil must keep inflation rates in check at an average of 5%, which is 1,4 points less than the average for the 2010-2019 period. The fundamental factors are to keep inflation low and maintain a healthy GDP growth. This would also keep the BRL eroding at a low and stable rate. As long as the NCPI is kept at not more than 5% and nominal wages are increased annually at an average of 10%, equalisation would progress, if future governments have the political will to increase the workers's share of income by applying a new wage appreciation policy.
- ➔ As the data from The Conference Board becomes available for subsequent years, we will assess how closely the minimum wage increases are reflected in manufacturing wages. For now, the average nominal increase to the manufacturing wage rates in local currency for 2010 thru 2018 was 7% for the nine-year period, 83% the average rate increase to the minimum wage for the same period (8,5%). Even if future governments do not activate a new minimum wage appreciation policy, we will continue to project the closing of the wage gap of manufacturing wages in the span of not more than 30 years.

Twenty-three year projection of real wage equalisation in the manufacturing sector for all employed in Brazil's manufacturing sector with their US counterparts, at an annual average nominal increase of 10% until reaching equalisation (5% in real terms)



Equalisation year 23 (2041)

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

Sources: WB, U.S. BLS, TCB, IOLW

- Parting from the implications carried by the shift from demand-side to supply-side economic policy in Brazil's current government, it appears to be unlikely that any meaningful progress will be achieved in increasing manufacturing wages and wage rates for the entire economy in real terms. In the best case scenario, wages will keep their current value. All of this is further complicated by the deep recession triggered by the pandemic.
- Nonetheless, if minimum wages were to be increased in real terms in a sustainable manner, it could be asserted that manufacturing wages would also increase in real terms at a lower rate, which currently averages at around 80% the rate of the minimum wage since 2010, but would increase meaningfully, and equalisation with equivalent wages in the US would make significant progress. This would generate, in all certainty, rather meaningful social and economic benefits in all economic sectors.
- Indeed, if Brazil's future governments were to apply a demand-side economic policy, this would generate multiplying effects that would consolidate social development, anchored on the generation of aggregate demand. This would 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 other things. To be sure, the greatest benefit would be the drastic decrease of poverty and an abatement of innumerable social problems engendered by the underlying systemic causes that engendered poverty and exclusion. In this way, Brazil would move ahead and approach, meaningfully, the making of an ethos where a majority of Brazil's society would 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.
- 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 rather brazen manner. Thus, if Brazil seriously commits to the long term materialisation of this central objective of social justice, it will accomplish the transformation of its society into one where equality would prevail –the sine qua non attributes of truly democratic societies.
- Unfortunately, it is necessary to emphasise that these assumptions are made in the context of a market-dominated ethos, which, by definition, is unsustainable both in the core and the periphery of the system, for the additional consumption to be generated is unsustainable in the long term. Consequently, for a living wage ethos to emerge and become sustainable in the long term, eventually, consumer societies will have to transform themselves into societies with a new paradigm centred on the welfare of people and planet and not on the market, with an ecological footprint that drastically reduces the consumption of resources. This will require not just a radical change in economic policy but a radical cultural change in all societies in a global context. Needless to say that concepts such as GDP and salary in and on itself would no longer make any sense in a truly sustainable paradigm.
- 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. Brazilians must increase their involvement in the public matter to ensure that those they choose to govern work in pursuit of the welfare of people and planet and NOT the market. Demand-side and other socially-oriented policies will lose any meaning as inequality keeps increasing and life as we know it becomes unsustainable. Furthermore, we are running out of time globally. The capitalist system is completely unsustainable and we are already on the brink of being unable to secure the sustainability of a planet where all living things, including our own species, can survive.

Table-T5: Living-Wage-Gap and Equalisation analysis (vis-à-vis the U.S.) for 14 Selected Economies – for all employed in the manufacturing sector– in PPP for private consumption terms 1996-2018 (based on Jus Semper’s methodology, following the principle of “Equal pay for equal work of equal value” of the UN and ILO’s international conventions).

	1996	2000	2004	2006	2008	2010	2012	2014	2016	2017	2018
Benchmark	(PPP conversion factor for private consumption)										
1. U.S. Hourly Manufacturing Wage Rate* (hourly compensation costs)	22,46	24,95	28,59	30,77	32,26	32,61	34,05	37,23	39,73	39,36	40,07
Canada	PPP conversion factor (in country currency)										
Exchange rate	1,263	1,270	1,273	1,287	1,302	1,295	1,284	1,311	1,300	1,297	1,300
PPP conversion factor (in U.S. dollars)	US\$ 1,3635	US\$ 1,4854	US\$ 1,3013	US\$ 1,1343	US\$ 1,0671	US\$ 1,030	US\$ 0,9994	US\$ 1,105	US\$ 1,326	US\$ 1,298	US\$ 1,298
2. Equalised PPP nominal wage rate US \$	US\$ 20,80	US\$ 21,33	US\$ 27,98	US\$ 34,92	US\$ 39,36	US\$ 41,00	US\$ 43,75	US\$ 44,19	US\$ 38,98	US\$ 39,34	US\$ 40,14
3. Actual PPP Real wage rate US \$	US\$ 20,12	US\$ 21,45	US\$ 24,21	US\$ 25,18	US\$ 26,29	US\$ 27,24	US\$ 28,55	US\$ 29,04	US\$ 30,66	US\$ 33,64	US\$ 32,96
4. Actual Nominal wage rate US \$	US\$ 18,63	US\$ 18,34	US\$ 23,69	US\$ 28,58	US\$ 32,08	US\$ 34,25	US\$ 36,69	US\$ 34,47	US\$ 30,08	US\$ 33,63	US\$ 33,02
Compensation Deficit in US \$ (2 minus 4)	US\$ 2,17	US\$ 2,99	US\$ 4,29	US\$ 6,34	US\$ 7,28	US\$ 6,75	US\$ 7,06	US\$ 9,72	US\$ 8,90	US\$ 5,71	US\$ 7,12
Wage Equalisation index (4÷2 or 3÷1)	0,90	0,86	0,85	0,82	0,82	0,84	0,84	0,78	0,77	0,85	0,82
Brazil	PPP conversion factor (in country currency)										
Exchange rate	0,942	1,063	1,373	1,432	1,468	1,597	1,663	1,901	2,249	2,327	2,355
PPP conversion factor (in U.S. dollars)	1,0051	1,829	2,925	2,175	1,834	1,759	1,953	2,353	3,491	3,191	3,654
2. Equalised PPP nominal wage rate US \$	US\$ 0,94	US\$ 0,58	US\$ 0,47	US\$ 0,66	US\$ 0,80	US\$ 0,91	US\$ 0,85	US\$ 0,81	US\$ 0,64	US\$ 0,73	US\$ 0,64
3. Actual PPP Real wage rate US \$	US\$ 21,05	US\$ 14,49	US\$ 13,42	US\$ 20,25	US\$ 25,83	US\$ 29,61	US\$ 28,99	US\$ 30,08	US\$ 25,59	US\$ 28,70	US\$ 25,83
4. Actual Nominal wage rate US \$	US\$ 7,54	US\$ 7,47	US\$ 8,14	US\$ 9,10	US\$ 10,54	US\$ 11,01	US\$ 12,62	US\$ 12,91	US\$ 12,78	US\$ 12,52	US\$ 12,66
Compensation Deficit in US \$ (2 minus 4)	US\$ 13,98	US\$ 10,15	US\$ 9,60	US\$ 14,26	US\$ 17,39	US\$ 19,61	US\$ 18,25	US\$ 19,65	US\$ 17,36	US\$ 19,57	US\$ 17,67
Wage Equalisation index (4÷2 or 3÷1)	0,34	0,30	0,28	0,30	0,33	0,34	0,37	0,35	0,32	0,32	0,32
Mexico	PPP conversion factor (in country currency)										
Exchange rate	4,202	6,750	7,470	7,744	8,159	8,720	9,223	9,354	9,460	10,094	10,319
PPP conversion factor (in U.S. dollars)	7,599	9,456	11,286	10,899	11,130	12,636	13,169	13,292	18,664	18,927	19,244
2. Equalised PPP nominal wage rate US \$	US\$ 0,55	US\$ 0,71	US\$ 0,66	US\$ 0,71	US\$ 0,73	US\$ 0,69	US\$ 0,70	US\$ 0,70	US\$ 0,51	US\$ 0,53	US\$ 0,54
3. Actual PPP Real wage rate US \$	US\$ 12,42	US\$ 17,81	US\$ 18,92	US\$ 21,86	US\$ 23,65	US\$ 22,50	US\$ 23,85	US\$ 26,20	US\$ 20,14	US\$ 20,99	US\$ 21,49
4. Actual Nominal wage rate US \$	US\$ 4,16	US\$ 4,97	US\$ 6,01	US\$ 6,25	US\$ 6,62	US\$ 6,55	US\$ 6,68	US\$ 7,09	US\$ 9,37	US\$ 9,28	US\$ 9,66
Compensation Deficit in US \$ (2 minus 4)	US\$ 2,30	US\$ 3,55	US\$ 3,98	US\$ 4,44	US\$ 4,85	US\$ 4,52	US\$ 4,68	US\$ 4,99	US\$ 4,75	US\$ 4,95	US\$ 5,18
Wage Equalisation index (4÷2 or 3÷1)	US\$ 10,12	US\$ 14,26	US\$ 14,94	US\$ 17,42	US\$ 18,80	US\$ 17,98	US\$ 19,17	US\$ 21,21	US\$ 15,39	US\$ 16,04	US\$ 16,31
	0,19	0,20	0,21	0,20	0,21	0,20	0,20	0,19	0,24	0,24	0,24
France	PPP conversion factor (in country currency)										
Exchange rate	6,579	0,936	0,943	0,928	0,925	0,898	0,886	0,859	0,847	0,843	0,841
PPP conversion factor (in U.S. dollars)	5,1155	1,0854	0,8054	0,7971	0,6827	0,7550	0,7783	0,7537	0,9040	0,8874	0,8468
2. Equalised PPP nominal wage rate US \$	US\$ 1,29	US\$ 0,86	US\$ 1,17	US\$ 1,16	US\$ 1,36	US\$ 1,19	US\$ 1,14	US\$ 1,14	US\$ 0,94	US\$ 0,95	US\$ 0,99
3. Actual PPP Real wage rate US \$	US\$ 28,88	US\$ 21,51	US\$ 33,49	US\$ 35,81	US\$ 43,72	US\$ 38,78	US\$ 38,78	US\$ 42,45	US\$ 37,23	US\$ 37,38	US\$ 39,81
4. Actual Nominal wage rate US \$	US\$ 21,63	US\$ 24,74	US\$ 27,42	US\$ 29,08	US\$ 30,72	US\$ 32,83	US\$ 36,22	US\$ 38,61	US\$ 40,25	US\$ 39,96	US\$ 41,65
Compensation Deficit in US \$ (2 minus 4)	US\$ 27,82	US\$ 21,33	US\$ 32,12	US\$ 33,85	US\$ 41,63	US\$ 39,04	US\$ 41,25	US\$ 44,03	US\$ 37,72	US\$ 37,95	US\$ 41,38
Wage Equalisation index (4÷2 or 3÷1)	US\$ 1,06	US\$ 0,18	US\$ 1,37	US\$ 1,96	US\$ 2,09	US\$ (0,26)	US\$ (2,47)	US\$ (1,58)	US\$ (0,49)	US\$ (0,57)	US\$ (1,57)
	0,96	0,99	0,96	0,95	0,95	1,01	1,06	1,04	1,01	1,02	1,04
Germany	PPP conversion factor (in country currency)										
Exchange rate	1,889	0,943	0,909	0,898	0,876	0,853	0,831	0,820	0,807	0,793	0,791
PPP conversion factor (in U.S. dollars)	1,5048	1,0854	0,8054	0,7971	0,6827	0,7550	0,7783	0,7537	0,9040	0,8874	0,8468
2. Equalised PPP nominal wage rate US \$	US\$ 1,26	US\$ 0,87	US\$ 1,13	US\$ 1,13	US\$ 1,28	US\$ 1,13	US\$ 1,07	US\$ 1,09	US\$ 0,89	US\$ 0,89	US\$ 0,93
3. Actual PPP Real wage rate US \$	US\$ 28,19	US\$ 21,67	US\$ 32,27	US\$ 34,68	US\$ 41,42	US\$ 36,83	US\$ 36,35	US\$ 40,48	US\$ 35,47	US\$ 35,15	US\$ 37,43
4. Actual Nominal wage rate US \$	US\$ 26,18	US\$ 28,88	US\$ 33,01	US\$ 34,47	US\$ 36,41	US\$ 38,80	US\$ 42,52	US\$ 45,52	US\$ 48,37	US\$ 49,21	US\$ 50,44
Compensation Deficit in US \$ (2 minus 4)	US\$ 32,86	US\$ 25,09	US\$ 37,25	US\$ 38,85	US\$ 46,75	US\$ 43,82	US\$ 45,40	US\$ 49,50	US\$ 43,18	US\$ 43,95	US\$ 47,11
Wage Equalisation index (4÷2 or 3÷1)	US\$ (4,67)	US\$ (3,42)	US\$ (4,98)	US\$ (4,17)	US\$ (5,33)	US\$ (6,99)	US\$ (9,05)	US\$ (9,02)	US\$ (7,71)	US\$ (8,80)	US\$ (9,68)
	1,17	1,16	1,15	1,12	1,13	1,19	1,25	1,22	1,22	1,25	1,26

Table-T5: Living-Wage-Gap and Equalisation analysis (vis-à-vis the U.S.) for 14 Selected Economies – for all employed in the manufacturing sector– in PPP for private consumption terms 1996-2018 (based on Jus Semper’s methodology, following the principle of “Equal pay for equal work of equal value” of the UN and ILO’s international conventions).

		1996	2000	2004	2006	2008	2010	2012	2014	2016	2017	2018
	(PPP conversion factor for private consumption)											
Benchmark	1. U.S. Hourly Manufacturing Wage Rate* (Hourly compensation costs)	22,46	24,95	28,59	30,77	32,26	32,61	34,05	37,23	39,73	39,36	40,07
Italy	PPP conversion factor (in country currency)	1641,957	0,850	0,890	0,881	0,847	0,819	0,829	0,825	0,786	0,773	0,766
	Exchange rate	1542,947	1,0854	0,8054	0,797	0,6827	0,7550	0,7783	0,7537	0,9040	0,8874	0,8468
	PPP conversion factor (in U.S. dollars)	US\$ 1,06	US\$ 0,78	US\$ 1,11	US\$ 1,10	US\$ 1,24	US\$ 1,08	US\$ 1,07	US\$ 1,10	US\$ 0,87	US\$ 0,87	US\$ 0,90
	2. Equalised PPP nominal wage rate US \$	US\$ 23,90	US\$ 19,53	US\$ 31,61	US\$ 33,99	US\$ 40,03	US\$ 35,37	US\$ 36,28	US\$ 40,77	US\$ 34,56	US\$ 34,28	US\$ 36,26
	3. Actual PPP Real wage rate US \$	US\$ 19,73	US\$ 21,22	US\$ 24,47	US\$ 25,79	US\$ 28,15	US\$ 31,17	US\$ 32,58	US\$ 34,51	US\$ 37,36	US\$ 36,53	US\$ 38,15
	4. Actual Nominal wage rate US \$	US\$ 21,00	US\$ 16,61	US\$ 27,06	US\$ 28,49	US\$ 34,93	US\$ 33,81	US\$ 34,71	US\$ 37,79	US\$ 32,49	US\$ 31,82	US\$ 34,52
	Compensation Deficit in US \$ (2 minus 4)	US\$ 2,90	US\$ 2,92	US\$ 4,55	US\$ 5,50	US\$ 5,10	US\$ 1,56	US\$ 1,57	US\$ 2,98	US\$ 2,07	US\$ 2,46	US\$ 1,74
	Wage Equalisation index (4÷2 or 3÷1)	0,88	0,85	0,86	0,84	0,87	0,96	0,96	0,93	0,94	0,93	0,95
United Kingdom	PPP conversion factor (in country currency)	0,789	0,778	0,743	0,750	0,763	0,778	0,787	0,799	0,789	0,783	0,787
	Exchange rate	0,6410	0,6609	0,5462	0,5435	0,5440	0,6472	0,6330	0,6077	0,7406	0,7770	0,7495
	PPP conversion factor (in U.S. dollars)	US\$ 1,23	US\$ 1,18	US\$ 1,36	US\$ 1,38	US\$ 1,40	US\$ 1,20	US\$ 1,24	US\$ 1,31	US\$ 1,06	US\$ 1,01	US\$ 1,05
	2. Equalised PPP nominal wage rate US \$	US\$ 27,66	US\$ 29,36	US\$ 38,88	US\$ 42,45	US\$ 45,28	US\$ 39,21	US\$ 42,34	US\$ 48,92	US\$ 42,30	US\$ 39,64	US\$ 42,06
	3. Actual PPP Real wage rate US \$	US\$ 14,43	US\$ 17,53	US\$ 20,95	US\$ 22,58	US\$ 24,11	US\$ 24,10	US\$ 24,86	US\$ 25,10	US\$ 26,68	US\$ 27,79	US\$ 27,83
	4. Actual Nominal wage rate US \$	US\$ 17,77	US\$ 20,63	US\$ 28,49	US\$ 31,15	US\$ 33,84	US\$ 28,98	US\$ 30,91	US\$ 32,98	US\$ 28,41	US\$ 27,99	US\$ 29,21
	Compensation Deficit in US \$ (2 minus 4)	US\$ 9,89	US\$ 8,73	US\$ 10,39	US\$ 11,30	US\$ 11,44	US\$ 10,23	US\$ 11,43	US\$ 15,94	US\$ 13,89	US\$ 11,65	US\$ 12,85
	Wage Equalisation index (4÷2 or 3÷1)	0,64	0,70	0,73	0,73	0,75	0,74	0,73	0,67	0,67	0,71	0,69
Spain	PPP conversion factor (in country currency)	128,188	0,769	0,789	0,791	0,802	0,801	0,786	0,744	0,718	0,707	0,709
	Exchange rate	126,66	1,0854	0,8054	0,7971	0,6827	0,7550	0,7783	0,7537	0,9040	0,8874	0,8468
	PPP conversion factor (in U.S. dollars)	US\$ 1,01	US\$ 0,71	US\$ 0,98	US\$ 0,99	US\$ 1,18	US\$ 1,06	US\$ 1,01	US\$ 0,99	US\$ 0,79	US\$ 0,80	US\$ 0,84
	2. Equalised PPP nominal wage rate US \$	US\$ 22,73	US\$ 17,68	US\$ 28,00	US\$ 30,53	US\$ 37,91	US\$ 34,60	US\$ 34,38	US\$ 36,76	US\$ 31,57	US\$ 31,38	US\$ 33,54
	3. Actual PPP Real wage rate US \$	US\$ 15,30	US\$ 17,48	US\$ 20,21	US\$ 21,94	US\$ 23,49	US\$ 25,08	US\$ 26,59	US\$ 28,55	US\$ 29,50	US\$ 30,61	US\$ 30,36
	4. Actual Nominal wage rate US \$	US\$ 15,48	US\$ 12,38	US\$ 19,79	US\$ 21,77	US\$ 27,60	US\$ 26,61	US\$ 26,85	US\$ 28,19	US\$ 23,44	US\$ 24,40	US\$ 25,41
	Compensation Deficit in US \$ (2 minus 4)	US\$ 7,25	US\$ 5,30	US\$ 8,21	US\$ 8,76	US\$ 10,31	US\$ 7,99	US\$ 7,53	US\$ 8,57	US\$ 8,13	US\$ 6,98	US\$ 8,13
	Wage Equalisation index (4÷2 or 3÷1)	0,68	0,70	0,71	0,71	0,73	0,77	0,78	0,77	0,74	0,78	0,76
Turkey	PPP conversion factor (in country currency)	—	—	0,907	1,018	1,058	1,115	1,230	1,369	1,555	1,710	1,941
	Exchange rate	—	—	1,426	1,428	1,302	1,503	1,796	2,1885	3,0201	3,6481	4,8284
	PPP conversion factor (in U.S. dollars)	—	—	US\$ 0,64	US\$ 0,71	US\$ 0,81	US\$ 0,74	US\$ 0,69	US\$ 0,63	US\$ 0,51	US\$ 0,47	US\$ 0,40
	2. Equalised PPP nominal wage rate US \$	—	—	US\$ 18,19	US\$ 21,92	US\$ 26,22	US\$ 24,20	US\$ 23,33	US\$ 23,29	US\$ 20,46	US\$ 18,45	US\$ 16,11
	3. Actual PPP Real wage rate US \$	—	—	US\$ 6,62	US\$ 7,00	US\$ 7,92	US\$ 8,48	US\$ 8,79	US\$ 9,93	US\$ 11,83	US\$ 15,17	US\$ 15,12
	4. Actual Nominal wage rate US \$	NA	NA	US\$ 4,21	US\$ 4,99	US\$ 6,44	US\$ 6,29	US\$ 6,02	US\$ 6,21	US\$ 6,09	US\$ 7,11	US\$ 6,08
	Compensation Deficit in US \$ (2 minus 4)	—	—	US\$ 13,98	US\$ 16,93	US\$ 19,78	US\$ 17,91	US\$ 17,31	US\$ 17,08	US\$ 14,37	US\$ 11,34	US\$ 10,03
	Wage Equalisation index (4÷2 or 3÷1)	—	—	0,23	0,23	0,25	0,26	0,26	0,27	0,30	0,39	0,38
Japan	PPP conversion factor (in country currency)	193,385	176,466	150,594	137,513	129,061	121,030	112,664	109,182	114,890	114,268	113,996
	Exchange rate	108,78	107,77	108,19	116,30	103,36	87,78	79,79	105,94	108,79	112,17	110,42
	PPP conversion factor (in U.S. dollars)	US\$ 1,78	US\$ 1,64	US\$ 1,39	US\$ 1,18	US\$ 1,25	US\$ 1,38	US\$ 1,41	US\$ 1,03	US\$ 1,06	US\$ 1,02	US\$ 1,03
	2. Equalised PPP nominal wage rate US \$	US\$ 39,93	US\$ 40,86	US\$ 39,79	US\$ 36,38	US\$ 40,28	US\$ 44,96	US\$ 48,08	US\$ 38,37	US\$ 41,96	US\$ 40,10	US\$ 41,37
	3. Actual PPP Real wage rate US \$	US\$ 13,31	US\$ 15,29	US\$ 18,15	US\$ 20,32	US\$ 22,01	US\$ 23,03	US\$ 24,96	US\$ 26,14	US\$ 25,06	US\$ 25,68	US\$ 25,96
	4. Actual Nominal wage rate US \$	US\$ 23,67	US\$ 25,03	US\$ 25,26	US\$ 24,03	US\$ 27,48	US\$ 31,75	US\$ 35,25	US\$ 26,94	US\$ 26,46	US\$ 26,16	US\$ 26,80
	Compensation Deficit in US \$ (2 minus 4)	US\$ 16,26	US\$ 15,83	US\$ 14,53	US\$ 12,35	US\$ 12,80	US\$ 13,21	US\$ 12,83	US\$ 11,43	US\$ 15,50	US\$ 13,94	US\$ 14,57
	Wage Equalisation index (4÷2 or 3÷1)	0,59	0,61	0,63	0,66	0,68	0,71	0,73	0,70	0,63	0,65	0,65

Table-T5: Living-Wage-Gap and Equalisation analysis (vis-à-vis the U.S.) for 14 Selected Economies – for all employed in the manufacturing sector– in PPP for private consumption terms 1996-2018 (based on Jus Semper’s methodology, following the principle of “Equal pay for equal work of equal value” of the UN and ILO’s international conventions).

		1996	2000	2004	2006	2008	2010	2012	2014	2016	2017	2018
	(PPP conversion factor for private consumption)											
Benchmark	1. U.S. Hourly Manufacturing Wage Rate* (Hourly compensation costs)	22,46	24,95	28,59	30,77	32,26	32,61	34,05	37,23	39,73	39,36	40,07
South Korea	PPP conversion factor (in country currency)	716,616	823,900	887,224	871,617	882,091	907,525	914,934	994,758	967,255	988,505	989,661
	Exchange rate	804,45	1130,96	1145,32	954,79	1102,05	1156,06	1126,47	1052,96	1160,43	1130,42	1100,50
	PPP conversion factor (in U.S. dollars)	US\$ 0,89	US\$ 0,73	US\$ 0,77	US\$ 0,91	US\$ 0,80	US\$ 0,79	US\$ 0,81	US\$ 0,94	US\$ 0,83	US\$ 0,87	US\$ 0,90
	2. Equalised PPP nominal wage rate US \$	US\$ 20,01	US\$ 18,18	US\$ 22,15	US\$ 28,09	US\$ 25,82	US\$ 25,60	US\$ 27,66	US\$ 35,17	US\$ 33,12	US\$ 34,42	US\$ 36,03
	3. Actual PPP Real wage rate US \$	US\$ 10,72	US\$ 13,21	US\$ 16,30	US\$ 19,02	US\$ 20,99	US\$ 22,78	US\$ 25,17	US\$ 25,01	US\$ 27,57	US\$ 27,34	US\$ 28,93
	4. Actual Nominal wage rate US \$	US\$ 9,55	US\$ 9,62	US\$ 12,63	US\$ 17,36	US\$ 16,80	US\$ 17,88	US\$ 20,44	US\$ 23,63	US\$ 22,98	US\$ 23,91	US\$ 26,02
	Compensation Deficit in US \$ (2 minus 4)	US\$ 10,46	US\$ 8,56	US\$ 9,52	US\$ 10,73	US\$ 9,02	US\$ 7,72	US\$ 7,22	US\$ 11,54	US\$ 10,14	US\$ 10,51	US\$ 10,01
	Wage Equalisation index (4÷2 or 3÷1)	0,48	0,53	0,57	0,62	0,65	0,70	0,74	0,67	0,69	0,69	0,72
Singapore	PPP conversion factor (in country currency)	1,230	1,155	1,082	1,028	1,048	1,071	1,073	1,104	1,087	1,080	1,059
	Exchange rate	1,4100	1,7240	1,6902	1,5889	1,4149	1,3635	1,2497	1,267	1,382	1,382	1,349
	PPP conversion factor (in U.S. dollars)	US\$ 0,87	US\$ 0,67	US\$ 0,64	US\$ 0,65	US\$ 0,74	US\$ 0,79	US\$ 0,86	US\$ 0,87	US\$ 0,79	US\$ 0,78	US\$ 0,79
	2. Equalised PPP nominal wage rate US \$	US\$ 19,59	US\$ 16,72	US\$ 18,31	US\$ 19,91	US\$ 23,90	US\$ 25,60	US\$ 29,25	US\$ 32,43	US\$ 31,26	US\$ 30,78	US\$ 31,47
	3. Actual PPP Real wage rate US \$	US\$ 13,68	US\$ 17,49	US\$ 20,61	US\$ 21,26	US\$ 25,46	US\$ 24,57	US\$ 28,43	US\$ 30,79	US\$ 34,00	US\$ 32,71	US\$ 35,56
	4. Actual Nominal wage rate US \$	US\$ 11,93	US\$ 11,72	US\$ 13,20	US\$ 13,76	US\$ 18,86	US\$ 19,29	US\$ 24,42	US\$ 26,82	US\$ 26,75	US\$ 25,58	US\$ 27,93
	Compensation Deficit in US \$ (2 minus 4)	US\$ 7,66	US\$ 5,00	US\$ 5,11	US\$ 6,15	US\$ 5,04	US\$ 6,31	US\$ 4,83	US\$ 5,61	US\$ 4,51	US\$ 5,20	US\$ 3,54
	Wage Equalisation index (4÷2 or 3÷1)	0,61	0,70	0,72	0,69	0,79	0,75	0,83	0,83	0,86	0,83	0,89
South Africa	PPP conversion factor (in country currency)	—	—	4,151	4,098	4,484	4,942	5,122	5,769	6,313	6,549	6,681
	Exchange rate	—	—	6,460	6,772	8,261	7,321	8,210	10,853	14,710	13,334	13,234
	PPP conversion factor (in U.S. dollars)	—	—	US\$ 0,64	US\$ 0,61	US\$ 0,54	US\$ 0,68	US\$ 0,62	US\$ 0,53	US\$ 0,43	US\$ 0,49	US\$ 0,50
	2. Equalised PPP nominal wage rate US \$	—	—	US\$ 18,37	US\$ 18,62	US\$ 17,51	US\$ 22,01	US\$ 21,24	US\$ 19,79	US\$ 17,05	US\$ 19,33	US\$ 20,23
	3. Actual PPP Real wage rate US \$	—	—	US\$ 6,05	US\$ 7,02	US\$ 8,42	US\$ 10,24	US\$ 11,59	US\$ 12,68	US\$ 13,93	US\$ 13,68	US\$ 13,92
	4. Actual Nominal wage rate US \$	NA	NA	US\$ 3,89	US\$ 4,25	US\$ 4,57	US\$ 6,91	US\$ 7,23	US\$ 6,74	US\$ 5,98	US\$ 6,72	US\$ 7,03
	Compensation Deficit in US \$ (2 minus 4)	—	—	US\$ 14,48	US\$ 14,37	US\$ 12,94	US\$ 15,10	US\$ 14,01	US\$ 13,05	US\$ 11,07	US\$ 12,61	US\$ 13,20
	Wage Equalisation index (4÷2 or 3÷1)	—	—	0,21	0,23	0,26	0,31	0,34	0,34	0,35	0,35	0,35
Australia	PPP conversion factor (in country currency)	1,375	1,384	1,444	1,498	1,531	1,554	1,546	1,530	1,533	1,543	1,537
	Exchange rate	1,278	1,725	1,360	1,328	1,192	1,090	0,966	1,109	1,345	1,305	1,338
	PPP conversion factor (in U.S. dollars)	US\$ 1,08	US\$ 0,80	US\$ 1,06	US\$ 1,13	US\$ 1,28	US\$ 1,43	US\$ 1,60	US\$ 1,38	US\$ 1,14	US\$ 1,18	US\$ 1,15
	2. Equalised PPP nominal wage rate US \$	US\$ 24,16	US\$ 20,02	US\$ 30,36	US\$ 34,71	US\$ 41,42	US\$ 46,48	US\$ 54,51	US\$ 51,35	US\$ 45,27	US\$ 46,56	US\$ 46,01
	3. Actual PPP Real wage rate US \$	US\$ 18,20	US\$ 20,87	US\$ 25,16	US\$ 25,84	US\$ 27,48	US\$ 27,75	US\$ 29,82	US\$ 33,36	US\$ 33,52	US\$ 31,83	US\$ 35,86
	4. Actual Nominal wage rate US \$	US\$ 19,58	US\$ 16,75	US\$ 26,72	US\$ 29,15	US\$ 35,28	US\$ 39,55	US\$ 47,74	US\$ 46,01	US\$ 38,19	US\$ 37,65	US\$ 41,18
	Compensation Deficit in US \$ (2 minus 4)	US\$ 4,58	US\$ 3,27	US\$ 3,64	US\$ 5,56	US\$ 6,14	US\$ 6,93	US\$ 6,77	US\$ 5,34	US\$ 7,08	US\$ 8,91	US\$ 4,83
	Wage Equalisation index (4÷2 or 3÷1)	0,81	0,84	0,88	0,84	0,85	0,85	0,88	0,90	0,84	0,81	0,90

Living-Wage-Gap and Equalisation analysis (vis-à-vis the U.S.) for 14 Selected Economies – for all employed in the manufacturing sector– in PPP for private consumption terms 1996-2018 (based on Jus Semper’s methodology, following the principle of “Equal pay for equal work of equal value” of UN and ILO’s international conventions).

*Definitions:

- PPPs stands for Purchasing-Power Parities, which reflect the currency units in a given currency 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 manufacturing wage 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.
- PPP conversion factor, (private consumption) 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.
- PPP conversion factor, private consumption 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 PPP for private consumption, 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 wage rate 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 PPP Real wage rate is the hourly wage paid in a given country in purchasing power terms.
- Actual Nominal wage rate is the nominal hourly wage paid in a given country.
- Compensation deficit expresses the wage gap between the hourly nominal wage 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 equalised PPP hourly pay (4 between 2); or the ratio of actual real pay (3) to the hourly nominal pay benchmark (1) (3 between 1).
- *India and China data gathered by the BLS and TCB are not fully comparable to the rest of countries due to some inconsistencies in methodology. However, given that in both cases the BLS argues that this work does not substantially affect the hourly compensation estimates, rough comparisons can still be made. For further reference on the description of each country see TCB's [Country Notes](#)
- Note: Variations in previous years are due to revisions made by the sources, including the World Bank's new 2011 PPP benchmarks, which replaced the previous 2005 benchmarks.
- Since 2010 the international comparison of hourly compensation costs (hourly wage rates) between the U.S. and selected developed and "emerging" markets refers to all employed in the manufacturing sector and no longer will be available for production workers only. Production-line wage rates are on average 20% below wage rates for all employed in manufacturing, including production workers, for the 1996-2009 period, for all countries included in the assessment. For further reference see wage-gap assessment of trends and differences between production-line and all employed in manufacturing in compensation cost terms here: [<Wage Gap Analysis of PLW versus All employed 1996-2009>](#)

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

- The Jus Semper Global Alliance: Living Wage Gaps Analysis in the manufacturing sector using:
- The Living Wages North and South Initiative ([TLWNSI](#)) using “Equal Pay for Work of Equal Value” Methodology.
- x Database of World Bank's World Development Indicators, 1975-2019.
- x U.S. Bureau of Labor Statistics, August 2013 and The Conference Board (TCB), International Labor Comparisons Program - Manufacturing Hourly Compensation Costs 2016, April 2018.
- x For all Countries except those listed below: The Conference Board (TCB) — International Comparisons of Manufacturing Productivity and Unit Labor Costs 2018, December 2019
- For all countries: Purchasing Power Parities and the Size of World Economies. Results from the 2017 International Comparison Program. World Bank 2020,
- Direct government sources for:
 - Argentina: (1) Ministerio de Producción y Trabajo, Observatorio de Empleo y Dinámica Empresarial: Boletín de Remuneraciones de los Trabajadores Registrados — serie Anual 2018; (2) (INDEC): Índice de precios al consumidor con cobertura nacional. Resultados por región, Julio 2020;
 - Brazil (IBGE): Pesquisa Industrial Anual Empresa, Custos e Despesas, Ano 2018.
 - Mexico (INEGI): EMIM (Encuesta Mensual de la Industrial Manufacturera. Principales características, datos mensuales. 2007-2019. por Variable, Tipo dato, Código SCIAN (2007), Año y Mes, Mayo 2019,
 - New Zealand Government: Stats NZ: Labour cost index (salary and wage rates): June 2020 quarter;
 - Philippines: Philippines Statistics Authority: 2018 Compilation of Industry Statistics on Labor and Employment,
 - United States: Employer Costs for Employee Compensation — Historical Listing — National Compensation Survey — March 2004 – March 2020.

Note regarding the new 2017 PPC round:

The 2017 results presented in this report are based exclusively on the prices and national accounts expenditures provided by the economies participating in the 2017 cycle of the International Comparison Program (ICP). Purchasing power parities (PPPs) and real expenditures were compiled in accordance with the established ICP methods and procedures. The International Comparison Program (ICP) released economic indicators and results for the reference year 2017 in May 2020. PPPs, PLIs and estimates of PPP-based GDP and its major expenditure components in aggregate and per capita terms were published for the 176 economies that participated in the program. Revised results for the preceding reference year 2011 and preliminary estimates of annual PPPs for 2012-2016 were also released. ICP 2017 Report: [Purchasing Power Parities and the Size of World Economies: Results from the 2017 International Comparison Program](#)

