Spain's Wage Gaps

Wage rates for all employed in manufacturing

2019 Report

Manufacturing wage gaps for Spain vis-à-vis selected developed and "emerging" economies, with available wage and PPP data (1996-2017)

(see definitions and sources at the end of report)

Manufacturing wage gaps for Spain vis-à-vis selected developed and "emerging" economies, with available wage and PPP data (1996-2017).

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Table of Contents

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**

  - 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 U.S. 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 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 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 are 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 2017

- Equivalent manufacturing workers in Spain and South Korea earn only 77% and 71%, 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 $39,36/hour whilst Spanish and South Korea workers earn only $24,40/hour and $23,91/hour, respectively,
- Since costs of living in PPP terms in Spain and South Korea are 81¢ and 85¢ respectively, for each $1 U.S. dollar, equivalent Spanish and South Korea manufacturing workers should be earning instead $31,72/hour and $33,50/hour, respectively, in order to enjoy equal purchasing power compensation,
- The difference is the wage rate gap that employers perversely keep to increase profits,
- Germany, in contrast has a real wage rate competitive advantage over its U.S. counterparts, since its nominal wage rate ($43,95) is 123% of the equivalent wage rate ($35,70) needed to be at par, with a PPP of 91¢ per each $1 U.S. dollar.

Nominal, Real and Equalisation Wage Rate for All Employed in Manufacturing by Using Purchase Power Parities (PPPs) Benchmark					
2017	Nominal Hourly Wage	PPP 2015	PPP Real Wage	Equalised Nominal Hourly Wage	Equalisation Index
United States	39,36 US$	100	39,36 US$	39,36 US$	100
Germany	43,95 US$	91	48,46 US$	35,70 US$	123
	112 %		123 %	91 %	
Spain	24,40 US$	81	30,28 US$	31,72 US$	77
	62 %		77 %	81 %	
South Korea	23,91 US$	85	28,10 US$	33,50 US$	71
	61 %		71 %	85 %	

Sources:

The Conference Board, International Labor Comparisons program, February 2018.

Data base of World Bank's World Development Indicators, 1975-2017, (private consumption PPP indicator)

IOLW – (WGSp 96/17)

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

- **A Classic Example in 2017**

  - From a graphic perspective, the first pie chart shows the US real wage rate for all employed in the manufacturing sector, which is always the benchmark. In the case of Spain, the pie chart exhibits the nominal wage rate earned, the nominal wage rate equalised with the US wage rate –always in purchasing power parity terms, and the difference retained inappropriately (deliberately).
  - The nominal equalised wage rate of $31,72 is what all-employed-in-manufacturing Spaniards should earn to be equally remunerated (in purchasing power terms) for performing an equivalent task. Yet, workers only earn $24,40 instead of $31,72; thus the employer deliberately retains $7,32, which constitutes a part of the surplus value that legitimately belongs to Spanish workers, according to TLWNSI's concept.
  - In this way, the second pie chart shows how the employer retains inappropriately 23% of labour's surplus value by only allocating to the worker 77% of what he/she is entitled to.

Left pie chart labels: 39,36 US$ / 7,32 US$ / 24,40 US$ / 31,72 US$
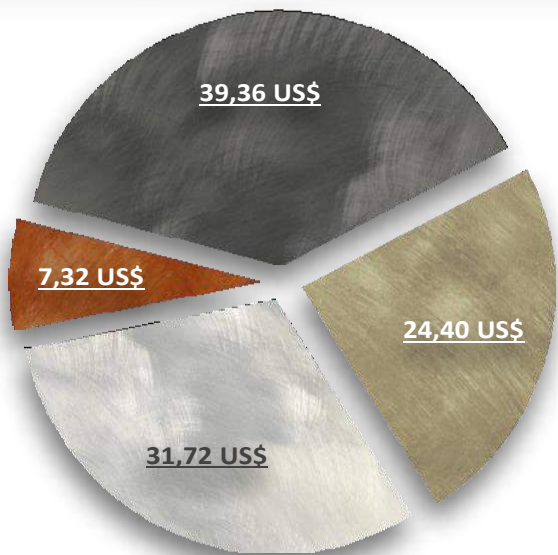
Legend (left chart):
- Nominal wage rate earned
- Equalised nominal wage rate
- Difference inappropriately retained by the employer
- U.S. equivalent wage rate (benchmark for equalisation)

Right pie chart labels: 23 % / 77 %
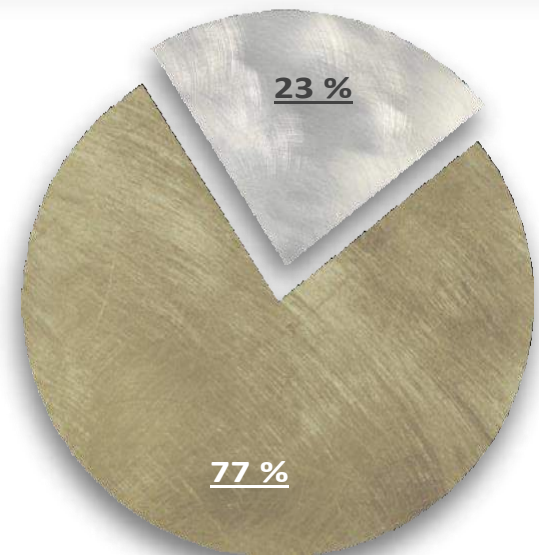
Legend (right chart):
- Nominal wage rate earned
- Difference inappropriately retained by the employer

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

Wage rate gap comparisons for selected economies

▪ **2017 is the first year in the 22-year span in this report that US hourly wage rates dropped (0,9%). This enabled the vast majority of countries to reduce their comparative wage gaps or increase their surpluses in their manufacturing wage Eq-Index or at least keep their position** (For full details see Table T5, starting in **page 24**).

▪ In the euro zone, Spain, Germany and France stopped their downturn that began in 2012, after steady and stronger growth of the US hourly rate vis-à-vis the growth of their comparative hourly rates in euros. In the case of France and Germany, they recovered some ground in their equalisation due to the revaluation of the euro 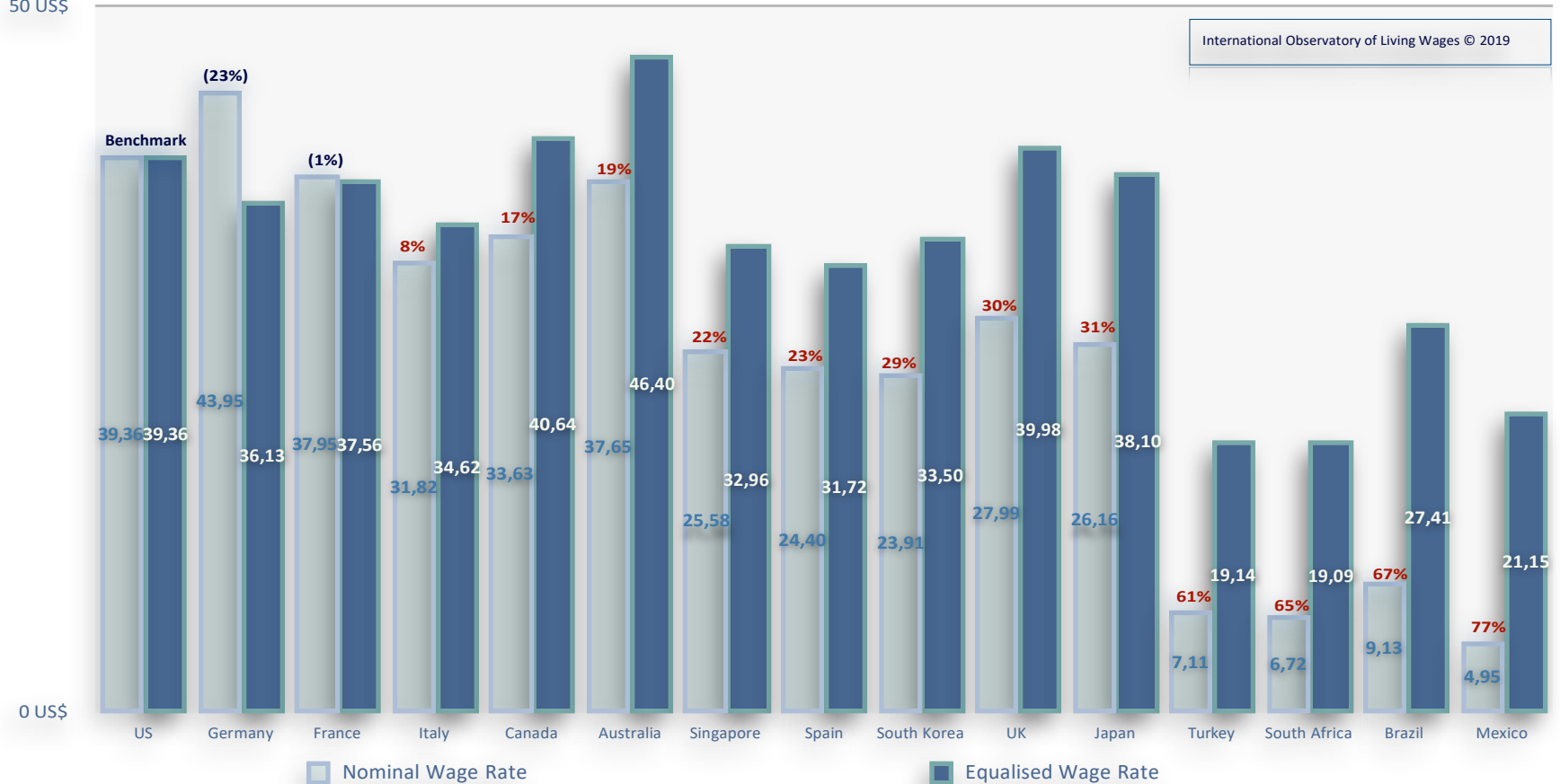in 2017 and no change in their PPP cost of living, despite the drop of their hourly rates in local currency. In the case of Spain the revaluation of the euro combined with a +2% growth of its hourly rate in euros and again no growth of the PPP cost of living, enabled it to gain four points in its Eq-Idx. In contrast, Italy's drop of its hourly rate of almost 4% in local currency and 2% in US dollars, produced further erosion of its Eq-Idx that began in 2014.

▪ In 2017 Japan has reversed the downward trend in living-wage equalisation (Eq-Idx) that began in 2013, increasing its Eq-Idx by three points, to a 69 index. This is the result of the combination of the drop of the US hourly rate, an increase of Japan's hourly rate in local currency and the drop of PPP cost of living, despite a decrease of its hourly rate in US dollars. South Korea sustained the growing trend of its Eq-Idx that resumed in 2014 after a brief downturn in 2013, and it is now at 71, three points below its highest index in 2012. This is the result of the combination of the drop of the US equivalent rate, an increase of the local currency rate, and a currency revaluation that produced a 4% increase of its hourly rate in US dollars. South Korea has also been able to remain ahead of Japan's Eq-Idx. A strong drop of Singapore's hourly rate in local currency produced a 1 point loss in its Eq-Idx.

▪ The United Kingdom reversed the sustained erosion of its Eq-Idx that began in 2008 and gained four points from its 2016 position. This resulted from the devaluation of its currency and a drop of its PPP cost of living, combined with a 2,2% growth of its hourly rate in local currency and the nearly 1% drop of the US rate. In contrast, Australia continued to decrease its Eq-Idx that began in 2014, with 4,4% drop of its hourly rate in local currency and a 1,9% increase in the PPP cost of living. In the case of Canada, the combination of its hourly rate increase in Canadian dollars of 9,4%, its currency revaluation of 2,2% and the 0,9% US rate decrease, produced an 11,8% increase of its hourly rate in US dollars between 2016 and 2017. This enabled its living wage equalisation index (Eq-Idx) to grow 10,2%, from 75 to 83, its highest since 2010. South Africa is a new economy incorporated into this report, showing a steady increase of its Eq-Idx since 2004, the earliest year with available data. But little growth of its hourly rate in local currency (1,9%) combined with strong inflation that pushed up its PPP cost of living almost 14% did not allow it to sustain its Eq-Idx growth in 2017, despite the fact that a strong currency revaluation increased its hourly rate +12% in US dollars. Extremely strong growth of hourly rate in local currency (41%) at a much higher rate than strong currency devaluation (17%) produced a strong 31% increase of Turkey's Eq-Idx, the highest of all economies included in our reports.

▪ 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, 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. Consequently, with a 2,1% inflation rate in 2017, the manufacturing hourly rate increased 1,4% in local currency units, effectively dropping in real terms. However, the appreciation of Brazil's Real and the drop of the US hourly manufacturing rate, allowed its equalisation index to remain at 33. Hourly rates and the Eq-Idx are bound to drop in 2018 and 2019, given that Bolsonaro's new government is deepening the anti-labour policies initiated by the Temer government.

▪ Mexico's track record since 1996 exposed a deliberate state policy of maintaining modern-slave-work real wages between 1996 and 2015. However, wage policy appears to have changed in 2017 after the execution of consistent supply-side policies over more than three decades. For the first time the Federal minimum wage was increased above inflation in 2017 and 2018. Through a so-called "Independent Recovery Amount", the minimum wage for 2017 was increased arbitrarily by 9,6%, including 3,9% to offset the estimated CPI inflation rate. The same criterion was applied for 2018, for a total minimum wage increase of 10,4%, including a 3,9% increase to offset CPI inflation. In 2019, Mexico's new government, touting to implement a strong minimum wage recovery policy, increased the minimum wage by 16,2%, including a 5% increase to offset inflation. The change of policy has had a direct positive impact on manufacturing wages in real terms and on its equalisation with comparative US wages. Between 2014 and 2017 the hourly rate in local currency increased 41,2%, but the peso experienced a steep devaluation of 29,8%, Thus the hourly rate in US dollars decreased slightly by 0,8%. However, due to the devaluation of the Mexican peso and low inflation, the PPP conversion factor dropped 23,6% for the same period. This allowed the Eq-Idx to gain four points, to 23, both in 2016 and 2017, the highest recorded index in the 22 year span of time. Yet, Mexico continues to have one of the widest living-wage gaps among the 41 countries included in all our reports, just ahead of China, India and the Philippines.

2017 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)

International Observatory of Living Wages © 2019

50 US$

Benchmark

Country	Nominal	Equalised	Gap
US	39,36	39,36	
Germany	43,95	36,13	(23%)
France	37,95	37,56	(1%)
Italy	31,82	34,62	8%
Canada	33,63	40,64	17%
Australia	37,65	46,40	19%
Singapore	25,58	32,96	22%
Spain	24,40	31,72	23%
South Korea	23,91	33,50	29%
UK	27,99	39,98	30%
Japan	26,16	38,10	31%
Turkey	7,11	19,14	61%
South Africa	6,72	19,09	65%
Brazil	9,13	27,41	67%
Mexico	4,95	21,15	77%

0 US$

☐ Nominal Wage Rate   ◼ Equalised Wage Rate

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.)

Equalisation Index with US Manufacturing Real Hourly Wage Rates via PPPs

Of the twelve economies in this report with data since 1996, Germany continues to have the best position with an actual equalisation advantage over the US in real PPP terms in its hourly wage rates, followed by France with a one point advantage over US wage rates. All other countries continue to record wage gaps vis-à-vis equivalent manufacturing wage rates in the US. Seven out of the twelve countries in this chart improved their position in 2017 vis-à-vis 2016 by increasing their advantage (Germany and France) or decreasing their wage gaps (Canada, UK, Spain, Japan and South Korea). Brazil and Mexico remained with their same gap in 2017 as in 2016. Only Italy, Singapore and Australia increased their gaps from the previous year. Mexico and Brazil continue reporting the worst wage gaps.
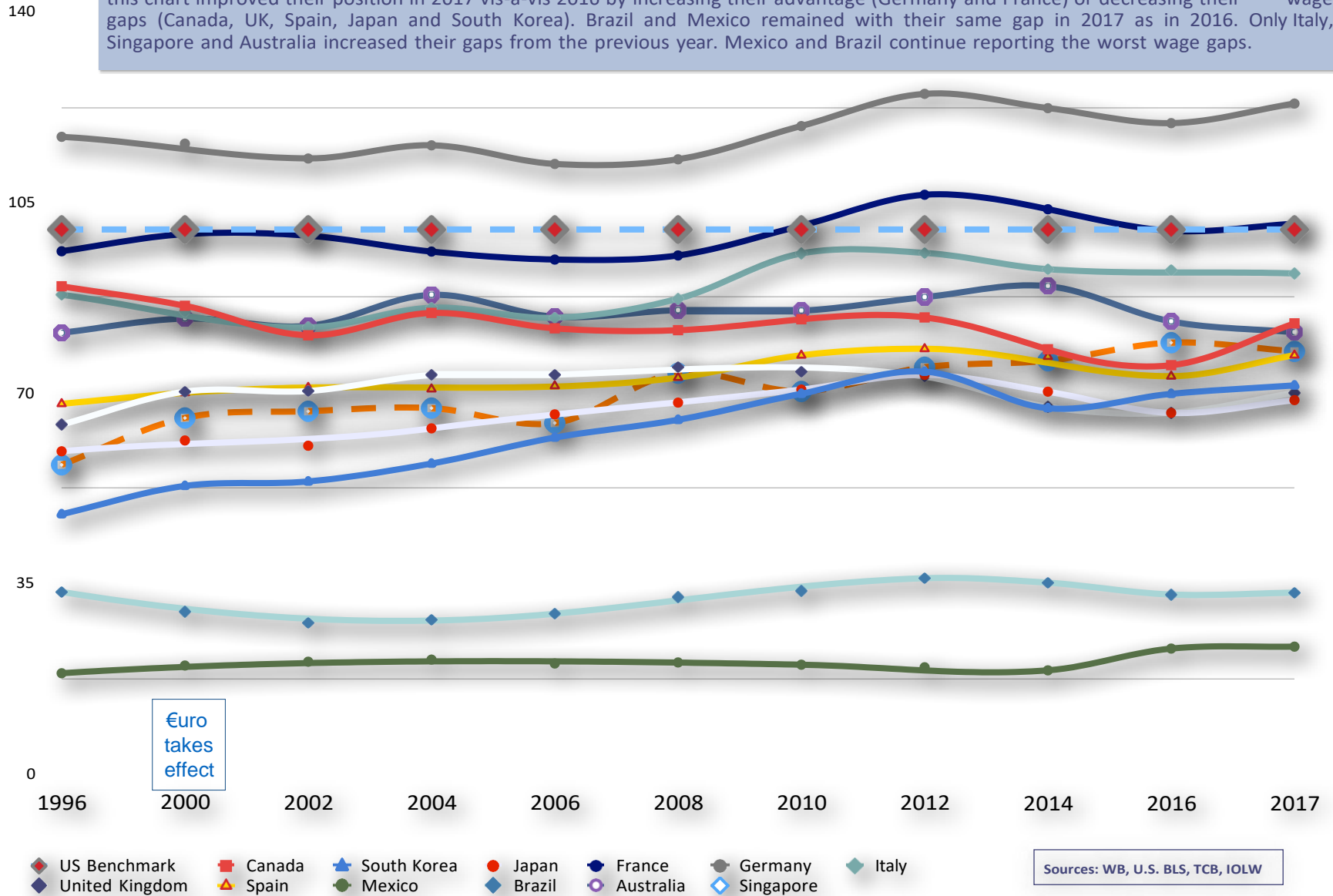
€uro takes effect

Legend:
- ◆ US Benchmark
- ◆ United Kingdom
- ■ Canada
- △ Spain
- ▲ South Korea
- ● Mexico
- ● Japan
- ◆ Brazil
- ■ France
- ○ Australia
- ● Germany
- ◇ Singapore
- ◆ Italy

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

Spain experienced a very meaningful increase of its Eq-Idx in 2017, gaining 4 points equivalent to a 4,5% increase; the result of the combination of the increase of its hourly rate in euros, the euro revaluation against the US dollar and the drop of 0,9% of the US hourly rate. Although this is a reversal of its previous drop between 2014 and 2016, the change is in line with the vast majority of European economies for the same reasons (for full details, see table T5 starting on page 24).

▪ As in the majority of the 41 economies in our 2019 reports, Spain experienced a very meaningful increase of its Eq-Idx in 2017, which gained 4 points equivalent to a 4,5% increase. This is the result of the combination of a 2,4% increase of its hourly rate in euros, an 11,6% revaluation of the euro that translated into a 4,1% increase of the hourly rate in US dollars and a drop of 0,9% of the US hourly rate. This is a reversal of its previous drop of also four points between 2014 and 2016, which brings Spains's Eq-Idx to just one point from its best position of a 78 index in 2012. This is in line with the vast majority of European economies, where 25 out of 29 countries improved their equalisation position largely due to the same combination of factors.

▪ Spain had made great economic strides in its convergence with the major European economies in the last part of the twentieth century, but began to stall after 1996, during the rule of its conservative government. Spain's Eq-Idx for production-line workers in manufacturing rose powerfully from 51 in 1975 to 84 in 1990, but then it began to hover in the mid 70s indices. In this way, the Eq-Idx —in purchasing power parity terms— of total hourly compensation costs for all employed in manufacturing has not reached an 80 index and has continued to linger since joining the euro between 70 in 1999 and 77 in 2017, averaging nearly a 73 index for the period. This is the result of supply-side economic policies applied by both right and left of centre governments that no longer sought to put at par Spain's labour compensations in manufacturing with the compensation rates of equivalent workers in the major economies of the euro area (Germany, France and Italy) under the principle of equal pay for equal work of equal value. The end result appears to be the deliberate decision to keep wages —in terms of living wage equalisation— at the same level they have recorded vis-à-vis the US, Germany, France and Italy.

▪ Nonetheless, in real terms, manufacturing wage rates have increased consistently almost every year since Spain converted to the euro. As a result, as shown in the chart on page 15, the hourly rates have increased 8,3% in real terms between 1999 and 2017, since the hourly rate of €21,65 in 2017 is 8,3% above the hourly rate of €19,99 if it had been increased only strictly in line with Spain's consumer price index (CPI). Yet, these increases have not been enough to sustain the progress achieved in living wage equalisation during the last part of the last century. It would take greater increases to close the gap with equivalent wages in the US, let alone with Germany, which has a 23% advantage over comparative wages in the US, as shown in the table on page 8.

▪ As for minimum wages, as shown in the chart on page 16, they were kept slightly below or in line with inflation until 2005, when they slowly began to increase in real terms until growing nearly 11% above the CPI by 2017. The shift to increase the minimum wage in real terms in 2005 coincides with the change of government from a neoliberal conservative government to a less supply-side oriented government from the workers' party. This policy remains in place despite the deep global recession that began in 2008 until 2011, when the minimum wage is increased below the CPI for four consecutive years until 2015. Minimum wages then slowly resumed their growth in real terms to then go through hikes of 8% in 2017, 4% in 2018, which are several points above the CPI of the preceding year, and a huge adjustment of 22,3% in 2019. The CPI rates were of 1,6% for 2016, 1,1% for 2017 and 1,2 % for 2018. The 22,3% increase for 2019 is the result of the agreement of Spain's labour party, in charge of Spain's government since mid-2018, and the far more progressive Podemos party. The rationale behind this, according to the government, is to increase aggregate demand, encourage spending and hiring, and reduce the gap with the major economies of the Euro area (España experimenta con un aumento de salarios sin precedentes, Mundo, AFP Bloomberg, 1/02/2019).
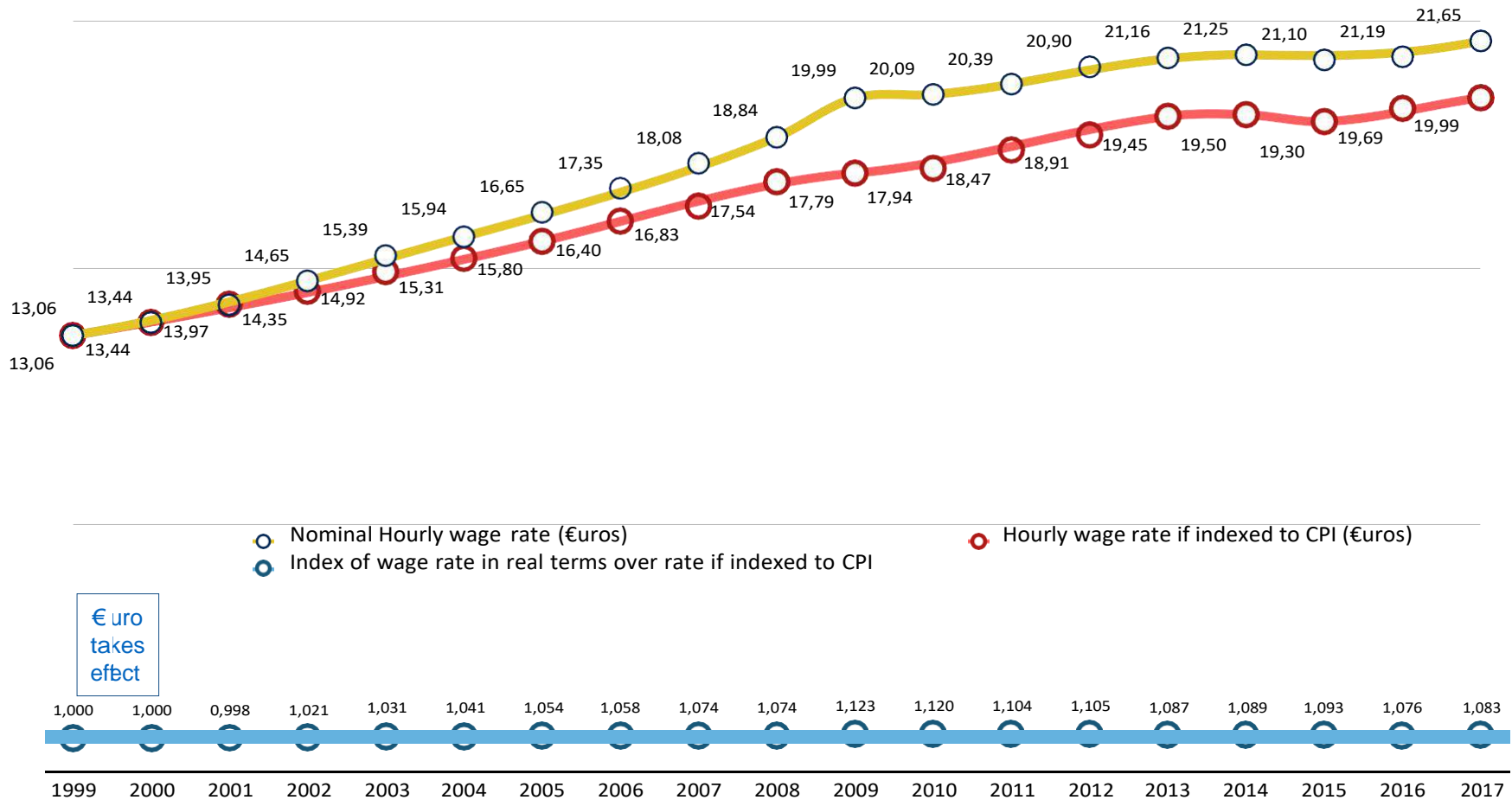
- Relative to the performance of manufacturing hourly rates vis-à-vis Spain's minimum wages since 1999, when Spain joined the €uro area, manufacturing compensations increased at higher rates, particularly between 1999 and 2003 until 2004, when the minimum wage began to close the gap with higher increases in real terms, until 2011 when the minimum wage lost ground again, until 2015, when the gap narrows once again as shown in the chart on page 17. Overall, manufacturing wages outperformed minimum wages in real terms until 2017, when the minimum wage was deliberately adjusted with powerful increases for three consecutive years to compensate for the lost ground of previous years. According to the government, the 2019 minimum wage of Spain is still below the average for the rest of Europe at 80,6% (El Gobierno aprueba la subida del salario mínimo a 900 euros y el aumento salarial de los funcionarios para 2019, El Economista: 21/12/2018). Furthermore, there is increasing talk to raise the minimum wage by 33% for 2020 in two six-month increases. We will see how the pressure that this unprecedented increase translates into actual increases to manufacturing wages. For now, inflation has not been impacted whatsoever by the unprecedented minimum wage increase and it is slated to be lower than in 2018, clearly below 1%. As for unemployment, despite the fact that it is still quite high, it continues to drop in 2019. The unemployment rate was 8,26% in 2007, just before the crisis ensued, but by 2013 the rate climbed to 26%. Finally it began to drop in 2014 and by third quarter 2019 it is down to 13,92% and from 51,8% to 29,8%% for the 16-24 age group. Both numbers continue to be extremely high by any standard (INE: Encuesta de Población Activa (EPA) Tercer trimestre de 2019, 24 de octubre de 2019).

- As we have asserted in previous reports, the fact that Spain's Eq-Idx has not moved from an average of 73 since it joined the euro in 1999 and the fact that it has been lingering in the 70 index band since then, is a direct reflection of the EU's deliberate policy of depressing the wage's share of income for the benefit of employers, their shareholders and financial investors across the EU area. In 2017 only Ireland and Austria recorded their best Eq-Idx among the 15 western European economies. This is consistent with the gradual drop globally of the wage share as a percent of GDP. In the case of Spain, its highest adjusted wage share for the total economy —as a % of GDP at current prices— was 67,5% in 1976 and it is now down to 52,7% in 2018. There is a clear cause for this disastrous situation in Spain and all across Europe. The ensuing effects of the systemic global capitalist crisis are deliberately exerting a toll on real wages in the entire Euro area since 2009. The positive results obtained for hourly wage rates in manufacturing are just a coincidental combination of factors that increased the Eq-Idx for Spain and most European economies and elsewhere vis-à-vis the US, but they do not change the neoliberal structures that continue to benefit the less than one-percent global elite. The same applies to the unprecedented hikes to minimum wages in Spain, which are only a circumstantial event resulting from a rather unstable coalition in charge of Spain's government that supports demand-side policies, but that cannot change the well-entrenched structures of depredation for the benefit of the owners of the marketocratic system. Euro-area policies centred on the harsh reduction of public deficits and inflationary pressures are antithetical to the need to recover the labour's share of income of all capitalist economies and repair the damage inflicted by neoliberalism to welfare state systems.

- However, beyond this reality, we must take consciousness 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. Hence, under the current system the welfare of societies will never happen. Thus, unless people realise that they need to force a new radical social contract that wholly replaces the capitalist system, there is no reason to regard the recent improvements in manufacturing wage rates and minimum wages as positive signs of what we can expect in the coming years.

- Furthermore, 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 sustainability of a planet where all living things, including our species, can survive. Consequently, it is indispensable that the citizenry in Spain and elsewhere become fully aware about the need to permanently get involved in the public matter to make 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. Spaniards 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. 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. We must realise that we must not try to fix, but replace, through a tectonic social movement, the current structures that have put in peril the sustainability of life in our planet.

Spain: nominal hourly manufacturing wage rate and hourly wage when only indexed to CPI

Spain's hourly wage rate in manufacturing consistently increased above inflation, reached its greater value in real terms in 2009 (12,3%) and it is 8,3% above inflation in 2017.

Legend:
- ○ Nominal Hourly wage rate (€uros)
- ○ Index of wage rate in real terms over rate if indexed to CPI
- ● Hourly wage rate if indexed to CPI (€uros)

€uro takes effect

1,000	1,000	0,998	1,021	1,031	1,041	1,054	1,058	1,074	1,074	1,123	1,120	1,104	1,105	1,087	1,089	1,093	1,076	1,083
1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017

Nominal Hourly wage rate (€uros): 13,06 · 13,44 · 13,95 · 14,65 · 15,39 · 15,94 · 16,65 · 17,35 · 18,08 · 18,84 · 19,99 · 20,09 · 20,39 · 20,90 · 21,16 · 21,25 · 21,10 · 21,19 · 21,65

Hourly wage rate if indexed to CPI (€uros): 13,06 · 13,44 · 13,97 · 14,35 · 14,92 · 15,31 · 15,80 · 16,40 · 16,83 · 17,54 · 17,79 · 17,94 · 18,47 · 18,91 · 19,45 · 19,50 · 19,30 · 19,69 · 19,99

Spain: nominal monthly minimum wage in real terms vis-à-vis CPI

Spain's minimum wage lost value in real terms until 2005, to then recover some ground until 2010, to then lose ground again, until the big hikes of the 2017-2019 period, ending with a gain of 38% in real terms since 1996.

○ Monthly minimum wage (€uros)

◉ Index of minimum wage relative to value if indexed to CPI

● Monthly Minimum wage if indexed to CPI inflation (€uros)

€uro takes effect

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1,00	0,99	1,00	1,00	0,99	0,97	0,97	0,95	0,97	1,02	1,03	1,06	1,07	1,10	1,11	1,09	1,06	1,04	1,04	1,05	1,04	1,11	1,14	1,38
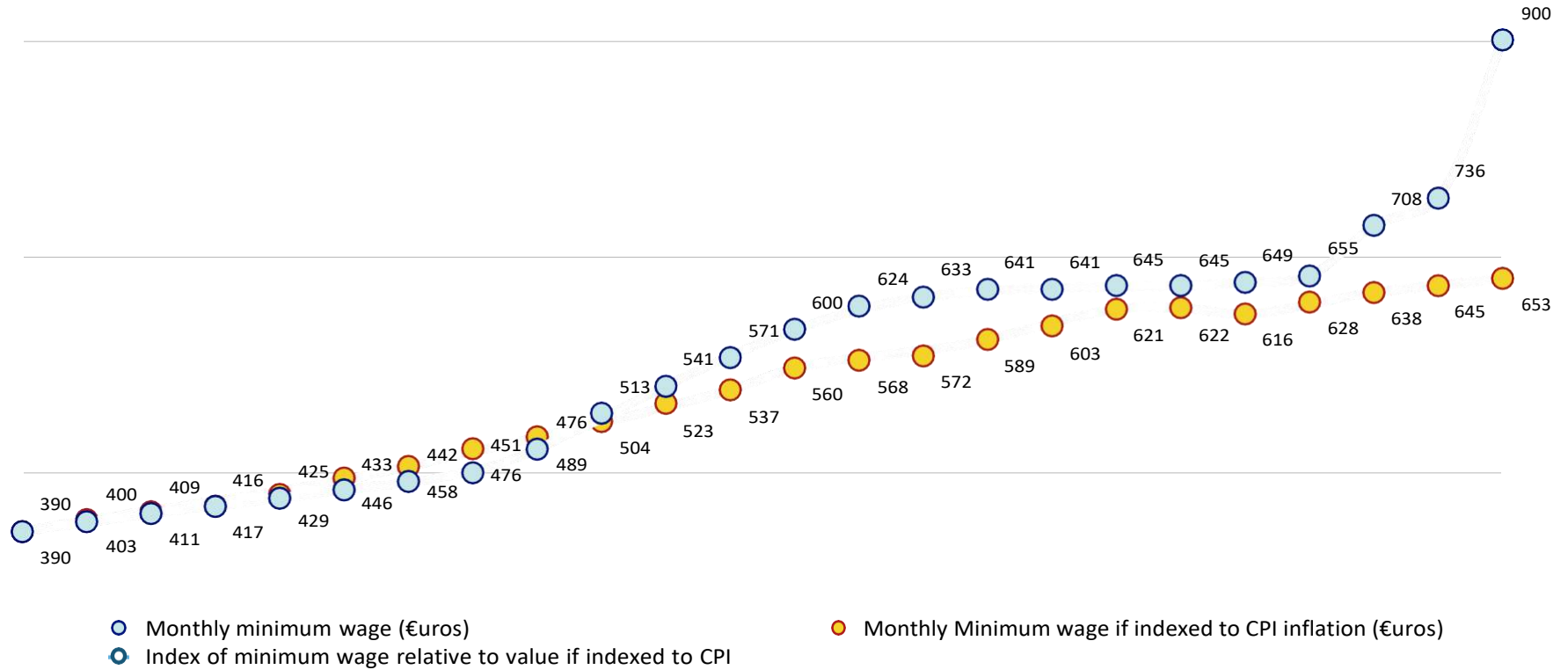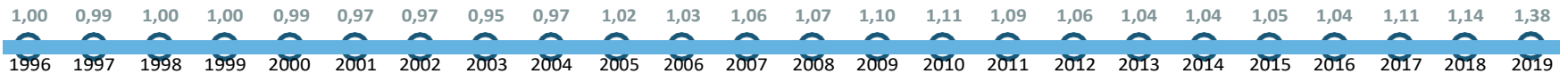
Spain: indices for manufacturing wage rates and monthly minimum wage in real terms

Spain's manufacturing wage rates consistently recorded higher indices relative to the CPI than minimum wages until 2017, when the minimum wage surpasses the manufacturing wage index (111 vs 108) after an 8% hike versus a 2,2% increase for manufacturing wage rates.

- ● Spain's hourly manufacturing wage in real terms index vs CPI
- ● Spain's hourly monthly minimum wage in real terms index vs CPI

€uro takes effect

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
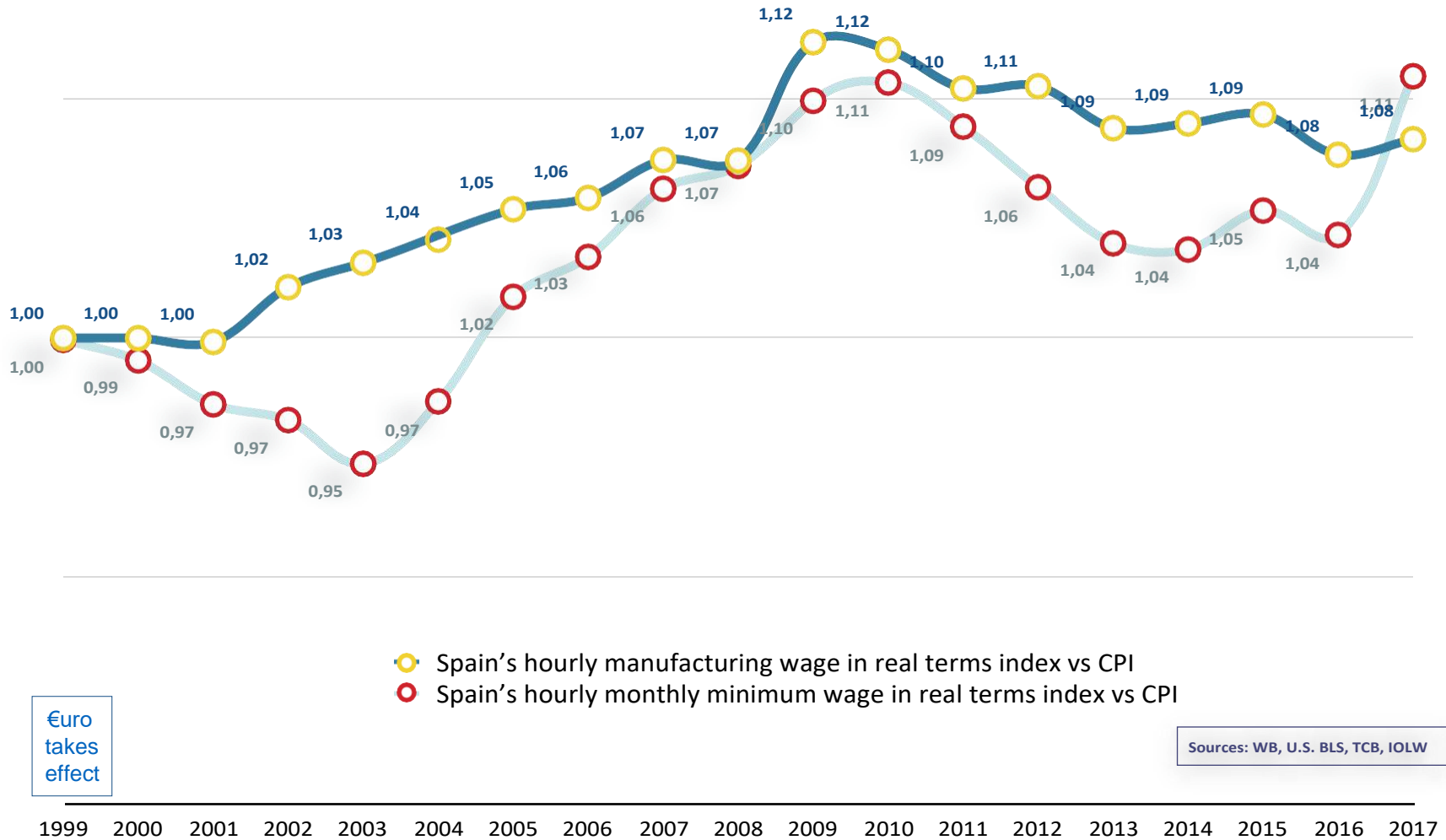
Behaviour of all Spanish employed in manufacturing hourly wage rates, PPPs and equalisation index with equivalent US wage rates

The chart below provides a complete illustration of the behaviour of Spain's wage rates vis-à-vis US wage rates since 1999. Between 1999 and 2017, Spain's real wage rates and, consequently, their equalisation with equivalent US wage rates improved very gradually until they dropped in 2016 to a 73 index to then recover in 2017. Spain's hourly wage rates for all employed in manufacturing increased 79,5% in real PPP terms while US wages did 63,9%, with Spain's PPP cost of living dropping from $0,77 to $0,71.

Equalisation Index (gold line): 70, 70, 71, 71, 71, 73, 77, 78, 77, 73, 77

Legend:
- ◆ Equalisation Index
- ■ US benchmark
- △ Spain equalised wage rate
- ● Spain nominal wage rate
- ● Spain real wage rate

Current US dollars

US benchmark: 24,01 24,95 27,35 28,59 30,77 32,26 32,61 34,05 37,23 39,73 39,36

Spain equalised wage rate: 37,91 ... 32,61 ... 34,38 ... 36,76 ... 32,08 ... 31,72

Grey line: 19,80 17,68 27,99 30,54 34,60 34,38 36,76 32,08 31,72

Spain real wage rate (yellow): 16,87 17,47 19,42 19,42 20,21 21,93 23,49 25,08 26,59 28,55 29,03 30,28

Spain nominal wage rate (red): 13,91 12,38 13,79 19,79 21,77 27,60 26,61 26,85 28,1. 23,44 24,40

€uro takes effect

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

1999   2000   2002   2004   2006   2008   2010   2012   2014   2016   2017

Gap of hourly wage rate equalisation between hourly nominal and equalised wage rates in PPP terms for all employed in manufacturing with equivalent US real wage rate (current dollars)

In Spain the combination of the drop of the US rate, an increase in the local currency rate, the euro revaluation and no growth of the PPP cost of living produced a strong gain of four points in 2017. Since its adoption of the euro in 1999, Spain has gained seven points, which reduces its wage gap with equivalent US workers by a strong 23%.

Size of gap between nominal and equalised wage rate

	1999	2000	2002	2004	2006	2008	2010	2012	2014	2016	2017
Nominal (red)	19,80 €	17,68 €	19,42 €	27,99 €	30,54 €	37,91 €	34,60 €	34,38 €	36,76 €	32,08 €	31,72 €
Equalised (yellow)	13,91 €	12,38 €	13,79 €	19,79 €	21,77 €	27,60 €	26,61 €	26,85 €	28,19 €	23,44 €	24,40 €
Eq-Idx	70 %	70 %	71 %	71 %	71 %	73 %	77 %	78 %	77 %	73 %	77 %

€uro takes effect

- Spain: equalised wage rate
- Spain: nominal wage rate
- Eq-Idx
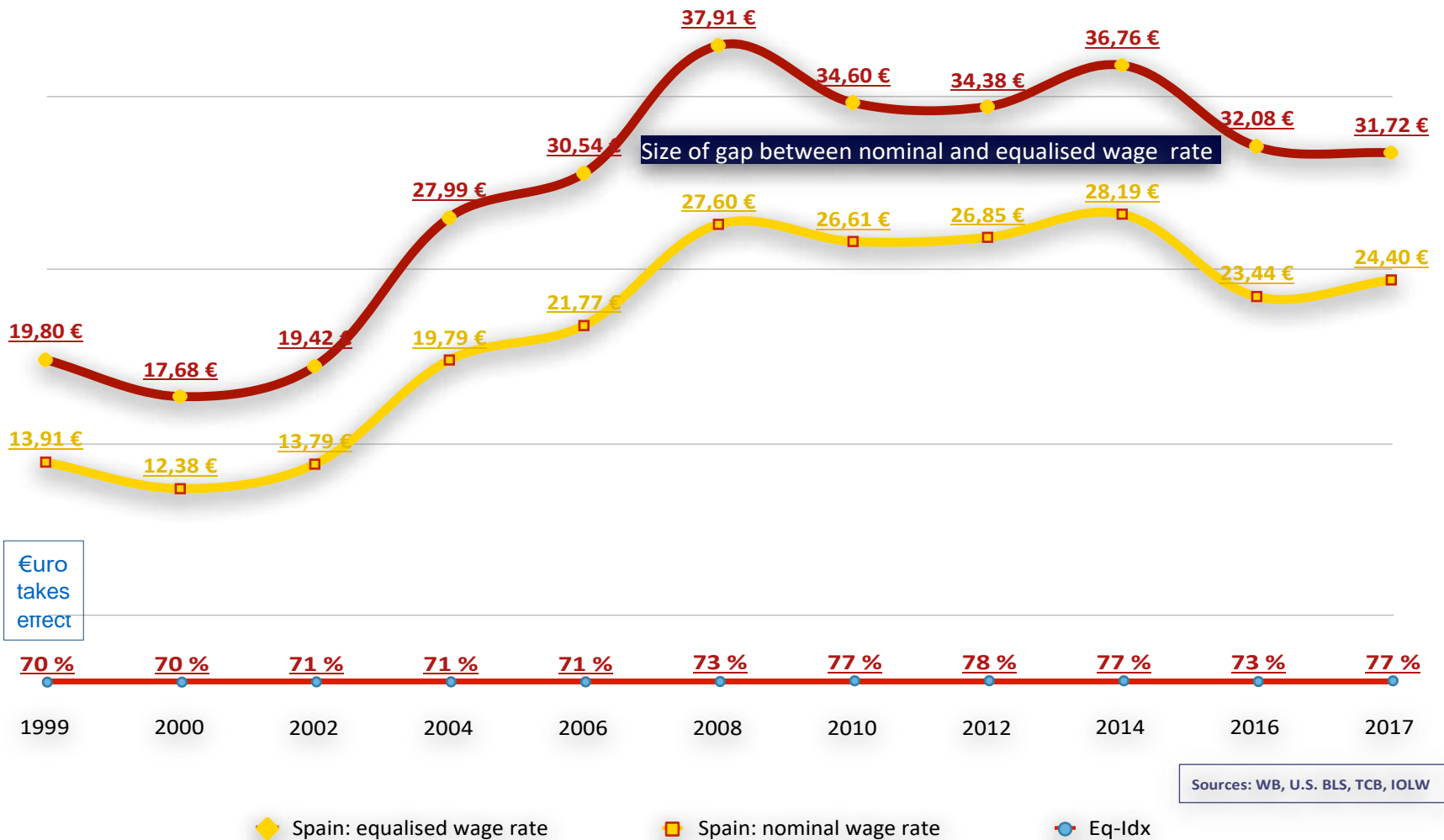
Gap between Spain's equalisation index and size of hourly real wage rate gap for all employed in manufacturing vis-à-vis US real wage rate (100% and 0% = Perfect equalisation)
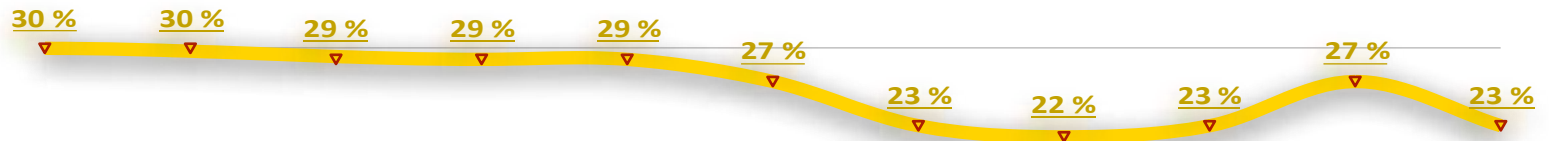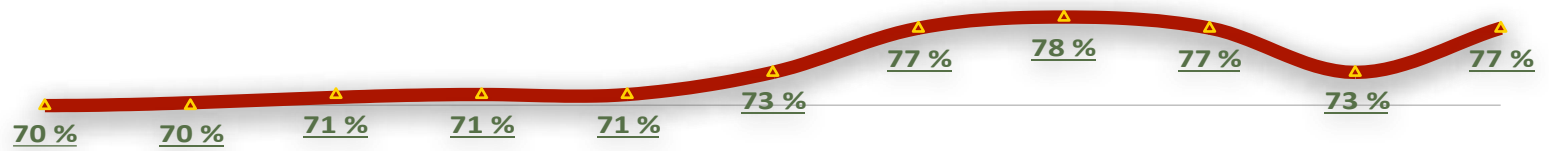
70 %　70 %　71 %　71 %　71 %　73 %　77 %　78 %　77 %　73 %　77 %

30 %　30 %　29 %　29 %　29 %　27 %　23 %　22 %　23 %　27 %　23 %

€uro takes effect

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

1999　2000　2002　2004　2006　2008　2010　2012　2014　2016　2017

▽ Size of Gap　　▲ Equalisation Index

Performance of equalisation indices of Spain's PPP hourly real wage rate for all employed in manufacturing vis-à-vis US counterparts and behaviour of Spain's purchasing power parity indices (cost of living in PPP terms – U.S.= 100)
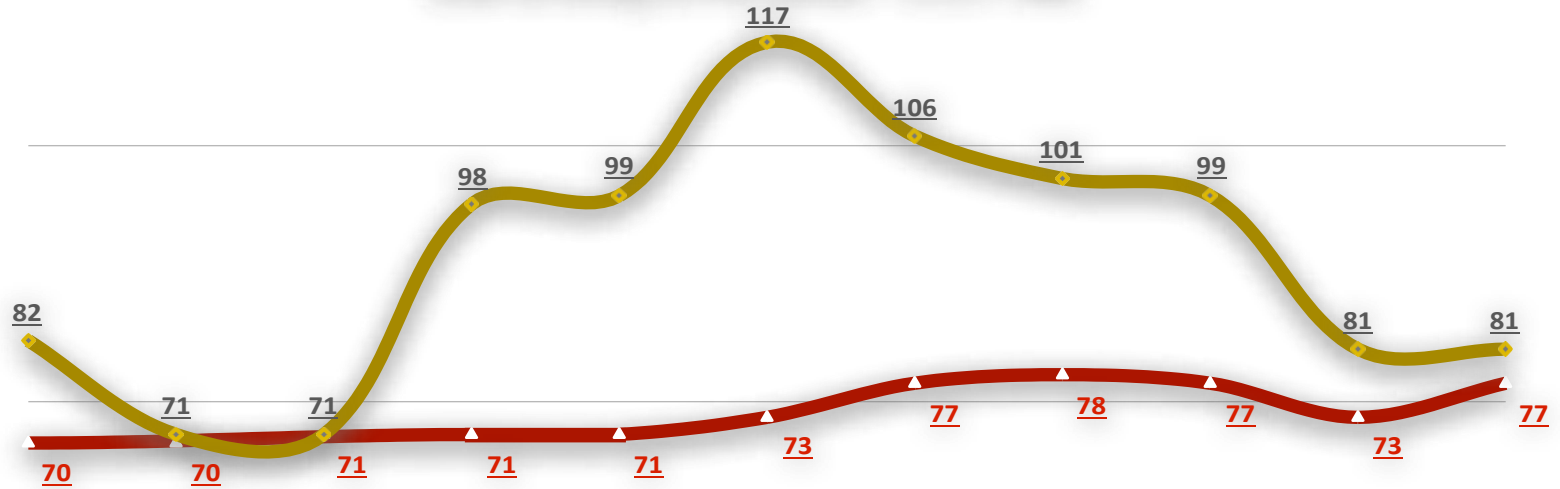
Sources: WB, U.S. BLS, TCB, IOLW

€uro takes effect

◆ Spain PPP living cost   ▲ Equalisation Index

Behaviour of comparative indices of Spain's manufacturing hourly real wage rate for all employed in manufacturing vis-à-vis equivalent German wage rate (Germany = 100 —and 123 over US rate)

When comparing Spain's all employed in manufacturing real wage rates with those of their German counterparts, the former has remained fairly stable, oscillating between index 59 and 67 of the German wage rate.

123

67

58 · 61 · 63 · 61 · 64 · 65 · 65 · 61 · 63 · 62

€uro in effect

| 1996 | 2000 | 2002 | 2004 | 2006 | 2008 | 2010 | 2012 | 2014 | 2016 | 2017 |

△ Spain-Germany   ● Germany

Sources: WB, U.S. BLS, TCB, IOLW
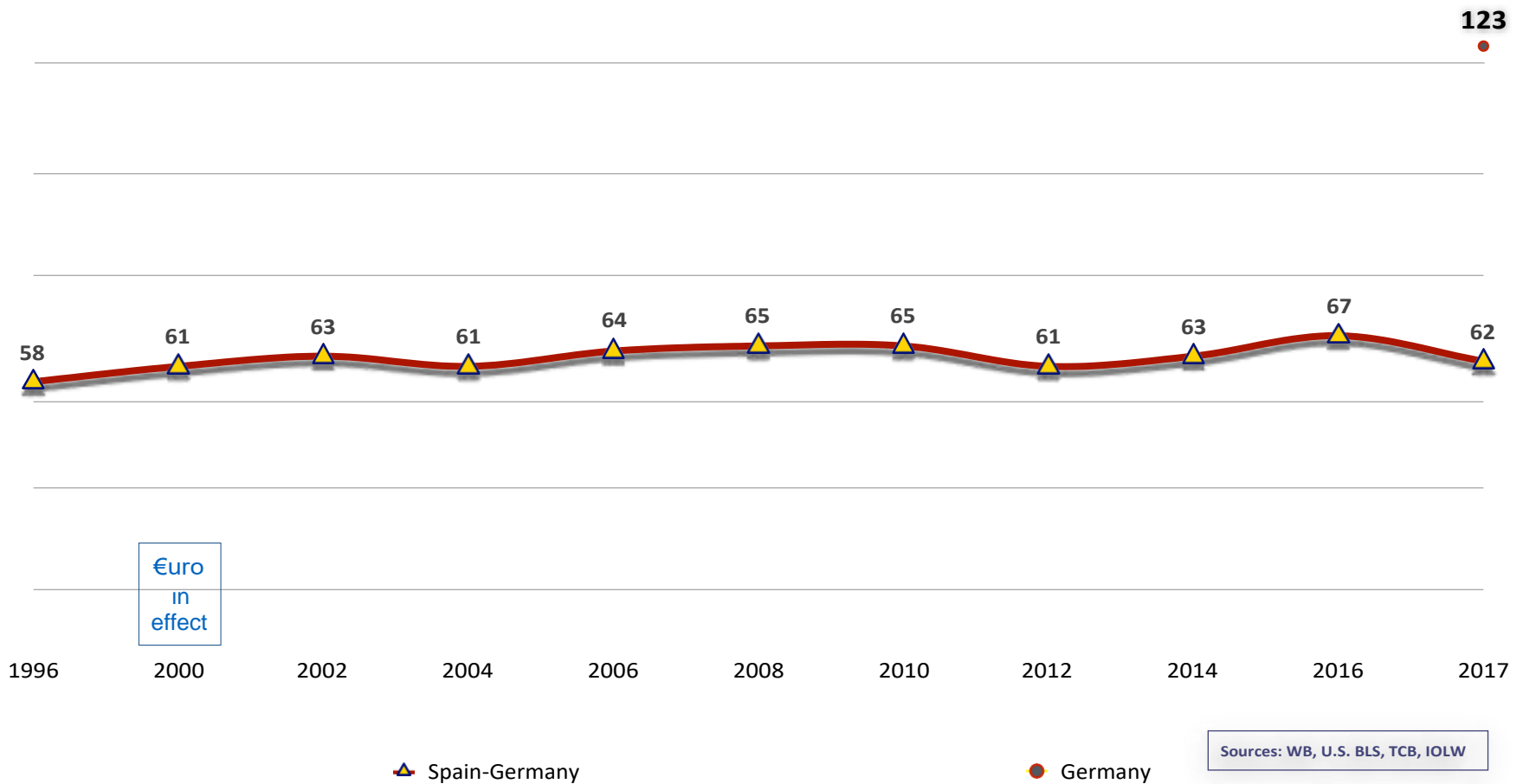
Spain and Germany's PPP equalisation indices of hourly real wage rates with equivalent U.S. wage rates for all employed in manufacturing

The comparison between Spain and Germany's living wage equalisation trends with US equivalent wage rates exhibits a stable relationship for the entire 1996-2017 period.

Germany Eq-Idx values: 117, 116, 113, 115, 112, 113, 119, 125, 122, 120, 123

Spain Eq-Idx values: 68, 70, 71, 71, 71, 73, 77, 78, 77, 73, 77

€uro in effect

1996 2000 2002 2004 2006 2008 2010 2012 2014 2016 2017

Spain Eq-Idx   Germany Eq-Idx

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

		1996	2000	2002	2004	2006	2008	2010	2012	2014	2016	2017
	(PPP conversion factor for private consumption)											
Benchmark	1. U.S. Hourly Manufacturing Wage Rate*	22,46	24,95	27,35	28,59	30,77	32,26	32,61	34,05	37,23	39,73	39,36
	(Hourly compensation costs)											
Canada	PPP conversion factor (in country currency)	1,263	1,270	1,287	1,273	1,287	1,302	1,296	1,284	1,311	1,337	1,340
	Exchange rate	1,3635	1,4854	1,5703	1,3013	1,1343	1,0671	1,030	0,9994	1,105	1,326	1,298
	PPP conversion factor (in U.S. dollars)	US$ 0,91	US$ 0,85	US$ 0,82	US$ 0,98	US$ 1,13	US$ 1,22	US$ 1,26	US$ 1,28	US$ 1,19	US$ 1,01	US$ 1,03
	2. Equalised PPP nominal wage rate US $	US$ 20,80	US$ 21,33	US$ 22,42	US$ 27,97	US$ 34,92	US$ 39,36	US$ 41,02	US$ 43,75	US$ 44,19	US$ 40,06	US$ 40,64
	3. Actual PPP Real wage rate US $	US$ 20,12	US$ 21,45	US$ 22,04	US$ 24,21	US$ 25,19	US$ 26,29	US$ 27,23	US$ 28,55	US$ 29,04	US$ 29,83	US$ 32,57
	4. Actual Nominal wage rate US $	US$ 18,63	US$ 18,34	US$ 18,06	US$ 23,69	US$ 28,58	US$ 32,68	US$ 34,25	US$ 36,69	US$ 34,47	US$ 30,08	US$ 33,63
	Compensation Deficit in US $ (2 minus 4)	US$ 2,17	US$ 2,99	US$ 4,36	US$ 4,28	US$ 6,34	US$ 7,28	US$ 6,77	US$ 7,06	US$ 9,72	US$ 9,98	US$ 7,01
	Wage Equalisation index (4÷2 or 3÷1)	0,90	0,86	0,81	0,85	0,82	0,82	0,84	0,84	0,78	0,75	0,83
Brazil	PPP conversion factor (in country currency)	0,946	1,067	1,184	1,379	1,438	1,475	1,605	1,711	1,876	2,194	2,222
	Exchange rate	1,0051	1,829	2,920	2,925	2,175	1,834	1,759	1,953	2,353	3,491	3,191
	PPP conversion factor (in U.S. dollars)	US$ 0,94	US$ 0,58	US$ 0,41	US$ 0,47	US$ 0,66	US$ 0,80	US$ 0,91	US$ 0,88	US$ 0,80	US$ 0,63	US$ 0,70
	2. Equalised PPP nominal wage rate US $	US$ 21,14	US$ 14,56	US$ 11,09	US$ 13,48	US$ 20,35	US$ 25,95	US$ 29,74	US$ 29,86	US$ 29,68	US$ 24,97	US$ 27,41
	3. Actual PPP Real wage rate US $	US$ 7,51	US$ 7,44	US$ 7,60	US$ 8,10	US$ 9,06	US$ 10,49	US$ 10,96	US$ 12,25	US$ 13,08	US$ 11,10	US$ 13,11
	4. Actual Nominal wage rate US $	US$ 7,07	US$ 4,34	US$ 3,08	US$ 3,82	US$ 5,99	US$ 8,44	US$ 10,00	US$ 10,74	US$ 10,43	US$ 8,23	US$ 9,13
	Compensation Deficit in US $ (2 minus 4)	US$ 14,07	US$ 10,22	US$ 8,01	US$ 9,66	US$ 14,36	US$ 17,51	US$ 19,74	US$ 19,12	US$ 19,25	US$ 16,74	US$ 18,28
	Wage Equalisation index (4÷2 or 3÷1)	0,33	0,30	0,28	0,28	0,29	0,33	0,34	0,36	0,35	0,33	0,33
Mexico	PPP conversion factor (in country currency)	4,202	6,750	7,238	7,470	7,744	8,159	8,720	9,223	9,354	9,682	10,172
	Exchange rate	7,599	9,456	9,656	11,286	10,899	11,130	12,636	13,169	13,292	18,664	18,927
	PPP conversion factor (in U.S. dollars)	US$ 0,55	US$ 0,71	US$ 0,75	US$ 0,66	US$ 0,71	US$ 0,73	US$ 0,69	US$ 0,70	US$ 0,70	US$ 0,52	US$ 0,54
	2. Equalised PPP nominal wage rate US $	US$ 12,42	US$ 17,81	US$ 20,50	US$ 18,92	US$ 21,86	US$ 23,65	US$ 22,50	US$ 23,85	US$ 26,20	US$ 20,61	US$ 21,15
	3. Actual PPP Real wage rate US $	US$ 4,16	US$ 4,97	US$ 5,64	US$ 6,01	US$ 6,25	US$ 6,62	US$ 6,55	US$ 6,68	US$ 7,09	US$ 5,14	US$ 9,21
	4. Actual Nominal wage rate US $	US$ 2,30	US$ 3,55	US$ 4,23	US$ 3,98	US$ 4,44	US$ 4,85	US$ 4,52	US$ 4,68	US$ 4,99	US$ 4,75	US$ 4,95
	Compensation Deficit in US $ (2 minus 4)	US$ 10,12	US$ 14,26	US$ 16,27	US$ 14,94	US$ 17,42	US$ 18,80	US$ 17,98	US$ 19,17	US$ 21,21	US$ 15,86	US$ 16,20
	Wage Equalisation index (4÷2 or 3÷1)	0,19	0,20	0,21	0,21	0,20	0,21	0,20	0,20	0,19	0,23	0,23
France	PPP conversion factor (in country currency)	6,579	0,936	0,906	0,943	0,928	0,923	0,898	0,886	0,859	0,861	0,847
	Exchange rate	5,1155	1,0854	1,0626	0,8054	0,7971	0,6827	0,7550	0,7783	0,7537	0,9040	0,8874
	PPP conversion factor (in U.S. dollars)	US$ 1,29	US$ 0,86	US$ 0,85	US$ 1,17	US$ 1,16	US$ 1,36	US$ 1,19	US$ 1,14	US$ 1,14	US$ 0,95	US$ 0,95
	2. Equalised PPP nominal wage rate US $	US$ 28,88	US$ 21,52	US$ 23,31	US$ 33,48	US$ 35,83	US$ 43,72	US$ 38,77	US$ 38,78	US$ 42,45	US$ 37,82	US$ 37,56
	3. Actual PPP Real wage rate US $	US$ 21,63	US$ 24,73	US$ 27,03	US$ 27,43	US$ 29,07	US$ 30,72	US$ 32,84	US$ 36,22	US$ 38,61	US$ 39,62	US$ 39,77
	4. Actual Nominal wage rate US $	US$ 27,82	US$ 21,33	US$ 23,04	US$ 32,12	US$ 33,85	US$ 41,61	US$ 39,04	US$ 41,25	US$ 44,03	US$ 37,72	US$ 37,95
	Compensation Deficit in US $ (2 minus 4)	US$ 1,06	US$ 0,19	US$ 0,27	US$ 1,36	US$ 1,98	US$ 2,09	US$ (0,27)	US$ (2,47)	US$ (1,58)	US$ 0,10	US$ (0,39)
	Wage Equalisation index (4÷2 or 3÷1)	0,96	0,99	0,99	0,96	0,94	0,95	1,01	1,06	1,04	1,00	1,01
Germany	PPP conversion factor (in country currency)	1,889	0,943	0,931	0,909	0,898	0,876	0,853	0,811	0,820	0,822	0,805
	Exchange rate	1,5048	1,0854	1,0626	0,8054	0,7971	0,6827	0,7550	0,7783	0,7537	0,9040	0,8874
	PPP conversion factor (in U.S. dollars)	US$ 1,26	US$ 0,87	US$ 0,88	US$ 1,13	US$ 1,13	US$ 1,28	US$ 1,13	US$ 1,07	US$ 1,09	US$ 0,91	US$ 0,91
	2. Equalised PPP nominal wage rate US $	US$ 28,19	US$ 21,67	US$ 23,97	US$ 32,27	US$ 34,68	US$ 41,42	US$ 36,83	US$ 36,35	US$ 40,48	US$ 36,11	US$ 35,70
	3. Actual PPP Real wage rate US $	US$ 26,18	US$ 28,88	US$ 30,91	US$ 33,81	US$ 34,47	US$ 36,41	US$ 38,80	US$ 42,52	US$ 45,52	US$ 47,44	US$ 48,46
	4. Actual Nominal wage rate US $	US$ 32,86	US$ 25,09	US$ 27,09	US$ 37,25	US$ 38,85	US$ 46,75	US$ 43,82	US$ 45,40	US$ 49,50	US$ 43,18	US$ 43,95
	Compensation Deficit in US $ (2 minus 4)	US$ (4,67)	US$ (3,42)	US$ (3,12)	US$ (4,98)	US$ (4,17)	US$ (5,33)	US$ (6,99)	US$ (9,05)	US$ (9,02)	US$ (7,05)	US$ (8,25)
	Wage Equalisation index (4÷2 or 3÷1)	1,17	1,16	1,13	1,15	1,12	1,13	1,19	1,25	1,22	1,20	1,23

	(PPP conversion factor for private consumption	1996	2000	2002	2004	2006	2008	2010	2012	2014	2016	2017
Benchmark	1. U.S. Hourly Manufacturing Wage Rate* (Hourly compensation costs)	22,46	24,95	27,35	28,59	30,77	32,26	32,61	34,05	37,23	39,73	39,36
Italy	PPP conversion factor (in country currency)	1641,957	0,850	0,878	0,890	0,861	0,847	0,819	0,829	0,823	0,799	0,780
	Exchange rate	1542,947	1,0854	1,0626	0,8054	0,797	0,6827	0,7550	0,7783	0,7517	0,9040	0,8874
	PPP conversion factor (in U.S. dollars)	US$ 1,06	US$ 0,78	US$ 0,83	US$ 1,11	US$ 1,11	US$ 1,24	US$ 1,08	US$ 1,07	US$ 1,10	US$ 0,88	US$ 0,88
	2. Equalised PPP nominal wage rate US $	US$ 23,90	US$ 19,54	US$ 22,59	US$ 31,60	US$ 34,01	US$ 40,03	US$ 35,37	US$ 36,28	US$ 40,77	US$ 35,10	US$ 34,62
	3. Actual PPP Real wage rate US $	US$ 19,73	US$ 21,21	US$ 22,43	US$ 24,48	US$ 25,78	US$ 28,15	US$ 31,17	US$ 32,58	US$ 34,51	US$ 36,77	US$ 36,18
	4. Actual Nominal wage rate US $	US$ 21,00	US$ 16,61	US$ 18,53	US$ 27,06	US$ 28,49	US$ 34,93	US$ 33,81	US$ 34,71	US$ 37,79	US$ 32,49	US$ 31,82
	Compensation Deficit in US $ (2 minus 4)	US$ 2,90	US$ 2,93	US$ 4,06	US$ 4,54	US$ 1,52	US$ 3,10	US$ 1,56	US$ 1,57	US$ 2,98	US$ 2,61	US$ 2,80
	Wage Equalisation index (4÷2 or 3÷1)	0,88	0,85	0,82	0,86	0,84	0,87	0,96	0,96	0,93	0,93	0,92
United Kingdom	PPP conversion factor (in country currency)	0,790	0,778	0,764	0,743	0,750	0,763	0,778	0,787	0,799	0,794	0,789
	Exchange rate	0,6410	0,6609	0,667	0,5462	0,5435	0,5440	0,6472	0,6330	0,6077	0,7406	0,7770
	PPP conversion factor (in U.S. dollars)	US$ 1,23	US$ 1,18	US$ 1,15	US$ 1,36	US$ 1,38	US$ 1,40	US$ 1,20	US$ 1,24	US$ 1,11	US$ 1,08	US$ 1,02
	2. Equalised PPP nominal wage rate US $	US$ 27,69	US$ 29,37	US$ 31,32	US$ 38,87	US$ 42,47	US$ 45,28	US$ 39,21	US$ 42,34	US$ 48,92	US$ 42,82	US$ 39,98
	3. Actual PPP Real wage rate US $	US$ 14,42	US$ 17,52	US$ 19,24	US$ 20,95	US$ 22,57	US$ 24,11	US$ 24,10	US$ 24,86	US$ 25,10	US$ 26,36	US$ 27,56
	4. Actual Nominal wage rate US $	US$ 17,77	US$ 20,63	US$ 22,03	US$ 28,49	US$ 31,15	US$ 33,84	US$ 28,98	US$ 30,91	US$ 32,98	US$ 28,41	US$ 27,99
	Compensation Deficit in US $ (2 minus 4)	US$ 9,92	US$ 8,74	US$ 9,29	US$ 10,38	US$ 11,32	US$ 11,44	US$ 10,23	US$ 11,43	US$ 15,94	US$ 14,41	US$ 11,99
	Wage Equalisation index (4÷2 or 3÷1)	0,64	0,70	0,70	0,73	0,73	0,75	0,74	0,73	0,67	0,66	0,70
Spain	PPP conversion factor (in country currency)	128,188	0,769	0,755	0,789	0,791	0,802	0,801	0,786	0,744	0,730	0,715
	Exchange rate	126,66	1,0854	1,0626	0,8054	0,7971	0,6827	0,7550	0,7783	0,7517	0,9040	0,8874
	PPP conversion factor (in U.S. dollars)	US$ 1,01	US$ 0,71	US$ 0,71	US$ 0,98	US$ 0,99	US$ 1,18	US$ 1,06	US$ 1,01	US$ 0,99	US$ 0,81	US$ 0,81
	2. Equalised PPP nominal wage rate US $	US$ 22,73	US$ 17,68	US$ 19,42	US$ 27,99	US$ 30,54	US$ 37,91	US$ 34,60	US$ 34,38	US$ 36,76	US$ 32,08	US$ 31,72
	3. Actual PPP Real wage rate US $	US$ 15,30	US$ 17,47	US$ 19,42	US$ 20,21	US$ 21,93	US$ 23,49	US$ 25,08	US$ 26,59	US$ 28,55	US$ 29,03	US$ 30,28
	4. Actual Nominal wage rate US $	US$ 15,48	US$ 12,38	US$ 13,79	US$ 19,79	US$ 21,77	US$ 27,60	US$ 26,61	US$ 26,85	US$ 28,19	US$ 23,44	US$ 24,40
	Compensation Deficit in US $ (2 minus 4)	US$ 7,25	US$ 5,30	US$ 5,63	US$ 8,20	US$ 8,77	US$ 10,31	US$ 7,99	US$ 7,53	US$ 8,57	US$ 8,64	US$ 7,32
	Wage Equalisation index (4÷2 or 3÷1)	0,68	0,70	0,71	0,71	0,71	0,73	0,77	0,78	0,77	0,73	0,77
Turkey	PPP conversion factor (in country currency)	—	—	—	0,907	1,018	1,058	1,115	1,230	1,369	1,550	1,681
	Exchange rate	—	—	—	1,426	1,428	1,302	1,503	1,796	2,1885	3,0201	3,6401
	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$ 0,46
	2. Equalised PPP nominal wage rate US $	—	—	—	US$ 18,19	US$ 21,93	US$ 26,22	US$ 24,20	US$ 23,33	US$ 23,29	US$ 20,39	US$ 18,14
	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$ 11,86	US$ 15,43
	4. Actual Nominal wage rate US $	NA	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
	Compensation Deficit in US $ (2 minus 4)	—	—	—	US$ 13,98	US$ 16,94	US$ 19,78	US$ 17,91	US$ 17,31	US$ 17,08	US$ 14,30	US$ 11,03
	Wage Equalisation index (4÷2 or 3÷1)	—	—	—	0,23	0,23	0,25	0,26	0,26	0,27	0,30	0,39
Japan	PPP conversion factor (in country currency)	193,385	176,466	163,075	150,594	137,513	129,061	121,030	112,664	109,382	109,247	106,572
	Exchange rate	108,78	107,77	125,39	108,19	116,30	103,36	87,78	79,79	105,94	108,79	112,17
	PPP conversion factor (in U.S. dollars)	US$ 1,78	US$ 1,64	US$ 1,30	US$ 1,39	US$ 1,18	US$ 1,25	US$ 1,38	US$ 1,41	US$ 1,03	US$ 1,00	US$ 0,97
	2. Equalised PPP nominal wage rate US $	US$ 39,93	US$ 40,86	US$ 35,57	US$ 39,79	US$ 36,38	US$ 40,28	US$ 44,96	US$ 48,00	US$ 38,37	US$ 39,90	US$ 38,10
	3. Actual PPP Real wage rate US $	US$ 13,31	US$ 15,29	US$ 16,49	US$ 18,15	US$ 20,32	US$ 22,01	US$ 23,03	US$ 24,96	US$ 26,14	US$ 26,35	US$ 27,03
	4. Actual Nominal wage rate US $	US$ 23,67	US$ 25,03	US$ 21,45	US$ 25,26	US$ 24,03	US$ 27,48	US$ 31,75	US$ 35,25	US$ 26,94	US$ 26,46	US$ 26,16
	Compensation Deficit in US $ (2 minus 4)	US$ 16,26	US$ 15,83	US$ 14,12	US$ 14,53	US$ 12,35	US$ 12,80	US$ 13,21	US$ 12,83	US$ 11,43	US$ 13,44	US$ 11,94
	Wage Equalisation index (4÷2 or 3÷1)	0,59	0,61	0,60	0,63	0,66	0,68	0,71	0,73	0,70	0,66	0,69

		1996	2000	2002	2004	2006	2008	2010	2012	2014	2016	2017
	(PPP conversion factor for private consumption)											
Benchmark	1. U.S. Hourly Manufacturing Wage Rate* (Hourly compensation cost)	22,46	24,95	27,35	28,39	30,77	32,26	32,61	34,05	37,23	39,73	39,36
South Korea	PPP conversion factor (in country currency)	716,616	823,900	871,604	887,224	871,617	882,091	907,525	914,934	994,758	961,143	962,003
	Exchange rate	804,45	1130,96	1251,09	1145,32	954,79	1102,05	1156,06	1126,47	1052,96	1160,43	1130,42
	PPP conversion factor (in U.S. dollars)	US$ 0,89	US$ 0,73	US$ 0,70	US$ 0,77	US$ 0,91	US$ 0,80	US$ 0,79	US$ 0,81	US$ 0,94	US$ 0,83	US$ 0,85
	2. Equalised PPP nominal wage rate US $	US$ 20,01	US$ 18,18	US$ 19,05	US$ 22,15	US$ 28,09	US$ 25,82	US$ 25,60	US$ 27,66	US$ 35,17	US$ 32,91	US$ 33,50
	3. Actual PPP Real wage rate US $	US$ 10,72	US$ 13,21	US$ 14,70	US$ 16,30	US$ 19,02	US$ 20,99	US$ 22,78	US$ 25,17	US$ 25,01	US$ 27,74	US$ 28,10
	4. Actual Nominal wage rate US $	US$ 9,55	US$ 9,62	US$ 10,24	US$ 12,63	US$ 17,36	US$ 16,80	US$ 17,88	US$ 20,44	US$ 23,63	US$ 22,98	US$ 23,91
	Compensation Deficit in US $ (2 minus 4)	US$ 10,46	US$ 8,56	US$ 8,81	US$ 9,52	US$ 10,73	US$ 9,02	US$ 7,72	US$ 7,22	US$ 11,54	US$ 9,93	US$ 9,59
	Wage Equalisation Index (4÷2 or 3÷1)	0,48	0,53	0,54	0,57	0,62	0,65	0,70	0,74	0,67	0,70	0,71
Singapore	PPP conversion factor (in country currency)	1,319	1,238	1,193	1,163	1,102	1,124	1,148	1,200	1,203	1,174	1,156
	Exchange rate	1,4100	1,7240	1,7906	1,6902	1,5889	1,4149	1,3635	1,2497	1,267	1,382	1,381
	PPP conversion factor (in U.S. dollars)	US$ 0,94	US$ 0,72	US$ 0,67	US$ 0,69	US$ 0,69	US$ 0,79	US$ 0,84	US$ 0,96	US$ 0,95	US$ 0,85	US$ 0,84
	2. Equalised PPP nominal wage rate US $	US$ 21,01	US$ 17,92	US$ 18,22	US$ 19,64	US$ 21,35	US$ 25,62	US$ 27,46	US$ 32,69	US$ 35,34	US$ 33,77	US$ 32,96
	3. Actual PPP Real wage rate US $	US$ 12,75	US$ 16,32	US$ 18,22	US$ 19,21	US$ 19,83	US$ 23,75	US$ 22,91	US$ 25,43	US$ 28,26	US$ 31,47	US$ 30,55
	4. Actual Nominal wage rate US $	US$ 11,93	US$ 11,72	US$ 12,14	US$ 13,20	US$ 13,76	US$ 18,86	US$ 19,29	US$ 24,42	US$ 26,82	US$ 26,75	US$ 25,58
	Compensation Deficit in US $ (2 minus 4)	US$ 9,08	US$ 6,20	US$ 6,08	US$ 6,44	US$ 7,59	US$ 6,76	US$ 8,17	US$ 8,27	US$ 8,52	US$ 7,02	US$ 7,38
	Wage Equalisation index (4÷2 or 3÷1)	0,57	0,65	0,67	0,67	0,64	0,74	0,70	0,75	0,76	0,79	0,78
South Africa	PPP conversion factor (in country currency)	—	—	—	4,181	4,128	4,516	4,978	5,249	5,715	6,280	6,467
	Exchange rate	—	—	—	6,460	6,772	8,261	7,321	8,210	10,853	14,710	13,334
	PPP conversion factor (in U.S. dollars)	—	—	—	US$ 0,65	US$ 0,61	US$ 0,55	US$ 0,68	US$ 0,64	US$ 0,53	US$ 0,43	US$ 0,49
	2. Equalised PPP nominal wage rate US $	—	—	—	US$ 18,50	US$ 18,76	US$ 17,64	US$ 22,17	US$ 21,77	US$ 19,61	US$ 16,96	US$ 19,09
	3. Actual PPP Real wage rate US $	—	—	—	US$ 6,01	US$ 6,97	US$ 8,36	US$ 10,16	US$ 11,31	US$ 12,40	US$ 14,01	US$ 13,85
	4. Actual Nominal wage rate US $	NA	NA	NA	US$ 3,89	US$ 4,25	US$ 4,57	US$ 6,91	US$ 7,23	US$ 4,74	US$ 5,98	US$ 6,72
	Compensation Deficit in US $ (2 minus 4)	—	—	—	US$ 14,61	US$ 14,51	US$ 13,07	US$ 15,26	US$ 14,54	US$ 12,87	US$ 10,98	US$ 12,37
	Wage Equalisation index (4÷2 or 3÷1)	—	—	—	0,21	0,23	0,26	0,31	0,33	0,34	0,35	0,35
Australia	PPP conversion factor (in country currency)	1,375	1,384	1,423	1,444	1,498	1,531	1,554	1,546	1,530	1,556	1,538
	Exchange rate	1,278	1,725	1,841	1,360	1,328	1,192	1,090	0,966	1,109	1,345	1,305
	PPP conversion factor (in U.S. dollars)	US$ 1,08	US$ 0,80	US$ 0,77	US$ 1,06	US$ 1,13	US$ 1,28	US$ 1,43	US$ 1,60	US$ 1,38	US$ 1,16	US$ 1,18
	2. Equalised PPP nominal wage rate US $	US$ 24,16	US$ 26,02	US$ 21,15	US$ 30,36	US$ 34,71	US$ 41,42	US$ 46,48	US$ 54,51	US$ 51,35	US$ 45,94	US$ 46,40
	3. Actual PPP Real wage rate US $	US$ 18,20	US$ 20,87	US$ 22,51	US$ 25,16	US$ 25,84	US$ 27,48	US$ 27,75	US$ 29,82	US$ 33,36	US$ 33,03	US$ 31,94
	4. Actual Nominal wage rate US $	US$ 19,58	US$ 16,75	US$ 17,41	US$ 26,72	US$ 29,15	US$ 35,28	US$ 39,55	US$ 47,74	US$ 46,01	US$ 38,19	US$ 37,65
	Compensation Deficit in US $ (2 minus 4)	US$ 4,58	US$ 3,27	US$ 3,74	US$ 3,64	US$ 5,56	US$ 6,14	US$ 6,93	US$ 6,77	US$ 5,34	US$ 7,25	US$ 8,75
	Wage Equalisation index (4÷2 or 3÷1)	0,81	0,84	0,82	0,88	0,84	0,85	0,85	0,88	0,90	0,83	0,81

*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>

Note regarding the new 2011 PPC round:

The International Comparison Program (ICP) released new data showing that the world economy produced goods and services worth over $90 trillion in 2011, and that almost half of the world's total output came from low and middle income countries.

Under the authority of the United Nations Statistical Commission, the 2011 round of ICP covered 199 economies - the most extensive effort to measure Purchasing Power Parities (PPPs) across countries ever. ICP 2011 estimates benefited from a number of methodological improvements over past efforts to calculate PPPs.

The ICP's principal outputs are PPPs for 2011 and estimates of PPP-based gross domestic product (GDP) and its major components in aggregate and per capita terms. When converting national economic measures (e.g. GDP), into a common currency, PPPs are a more direct measure of what money can buy than exchange rates.

Limitations in the use of the data

PPPs are statistical estimates. Like all statistics they are subject to sampling errors, measurement errors, and errors of classification. Therefore, they should be treated as approximations to true values. Because of the complexity of the process used to collect the data and calculate the PPPs, it is not possible to directly estimate their margins of error. Therefore, small differences in the estimated values between economies should not be considered significant.

IOLW – (WGSp 96/17)