



The need for caution on Spain's recent minimum wage hike

The Spanish government has recently approved an increase in the minimum wage to 900 euros in 2019, the biggest increase in 40 years. While empirical evidence may support the need for such a measure, the potential risks should be carefully assessed.

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Abstract: The recently approved increase in the minimum wage by 22.3%, to 900 euros per month in 2019 –forecast to reach 1,000 euros in 2020– will make Spain pass from being one of the countries with the lowest minimum wages to one of the highest. This decision could be in part justified given the country's low current wage level and the decoupling of wages from labour productivity, although there are broad differences across sectors. However, the scale of the increase may be disproportionate or, at the very least, risky. It is not clear that a minimum

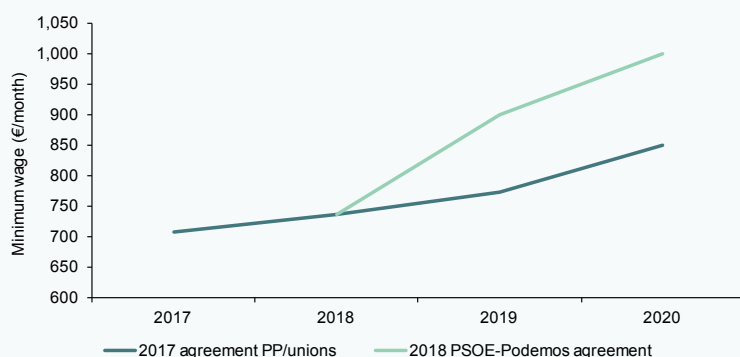
wage is the best tool for addressing growing household income inequality as there is no clear correlation between wage levels and household poverty. Furthermore, evidence shows that disproportionate increases in the minimum wage may significantly impact employment for low-wage earners, older workers, youth, and other already vulnerable groups.

Introduction

The Spanish government's draft budget for 2019 includes a 22.3 percent hike in Spain's

Exhibit 1

Minimum wage agreed by PP party and unions in December 2017 versus that agreed by PSOE-Podemos in October 2018



Source: Author's own elaboration.

statutory minimum wage to 900 euros. The proposal stems from a recent pact struck by political parties PSOE and Podemos and sets a course for the minimum wage that could raise it to 1,000 euros by 2020. The pact implements the biggest increase and highest value in real terms since 1977; it also overshoots by 17.6% what the Partido Popular (PP) government agreed with the unions for 2020 in December 2017 (Exhibit 1). Moreover, that agreement had been based on the delivery of two conditions that no longer hold: annual GDP growth of over 2.5% and annual job creation of 450,000.

The proposal has sparked criticism and support in equal measures. There are those who see the minimum wage increase as a step in the right direction towards reducing growing wage inequality in Spain and addressing the phenomenon known as working poverty. Others fear that the measure will not effectively reduce poverty and inequality and will instead trigger job losses

among the very segments of the population it is intended to help.

A closer look at Spain's minimum wage

To analyse minimum wage coverage, Felgueroso and Jansen (2018) use Social Security data that captures the work histories of 4% of all contributors in Spain (CWHS, from 2005 to 2017). Coverage is defined as the percentage of employees who earn a salary equivalent to or lower than the newly negotiated minimum wage. According to their research, at a minimum wage of 900 euros, coverage would range, depending on the month, between 7.6% and 8.9% of the workforce and at a minimum wage of 1,000 euros, between 11.9% and 13.0%. This average coverage ratio masks wide differences between groups of workers and regions. For example, for young people under 24, coverage would be 29.3%, and for the least skilled workers, coverage would range between 19%

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and 25.5%. Their analysis also suggests that those covered by the minimum wage are more likely to suffer job insecurity: 50% change jobs within a year, a percentage that has risen to 60% since 2014.

As for regional differences, if the increase in minimum wage proposed by the current government was implemented, regions with the highest rates of unemployment would have the highest coverage levels in 2020 and see the biggest jumps in that ratio (Exhibit 2). For example, in the Canary Islands, where unemployment stands at 20%, an increase in the minimum wage to 1,000 euros in 2020 would have the effect of increasing the coverage ratio by 15.3 percentage points, from 4.3% in 2018 to 19.6% in 2020. The Kaitz index [1] would increase from 56% of the median wage in 2018 to 73.1% in 2020. At the other end of the spectrum, in Navarre, where the unemployment rate is 10%, the

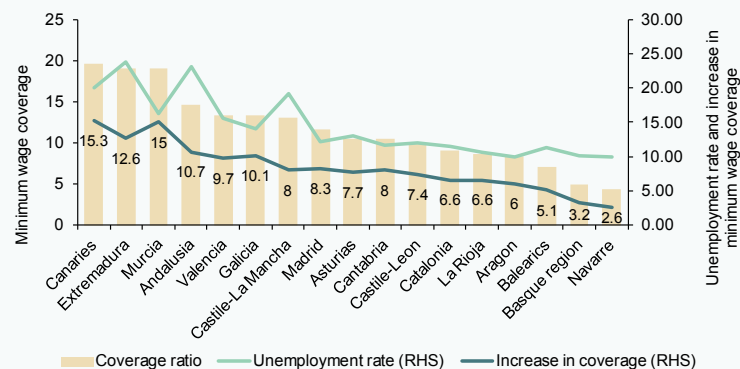
proposed increase in the minimum wage would have a very limited impact on this region's very low coverage ratio: it would increase from 1.8% to 4.4%. These regional differences raise a concern: a disproportionate increase in the minimum wage could push groups in the labour force already at risk of exclusion out of the job market.

Turning to the Kaitz index, which relates the minimum wage to average or median wages, Exhibit 3 ranks Spain 31st among OECD countries.

Exhibit 3 shows how big an impact the increase in minimum wage proposed by the Spanish government would have. Of 31 OECD countries, Spain ranked third to last in 2017 (before the 8% increase implemented in 2017), with only Mexico and the US having lower minimum wages as a percentage of

Exhibit 2

Minimum wage (€1,000) coverage and unemployment, by region



Sources: Coverage and change in coverage, Felgueroso and Jansen (2018); unemployment rate, 2Q18 economically active survey.

Exhibit 3

Kaitz index: Minimum wage as a percentage of median wage (2017)

Sources: OECD and Felgueroso and Jansen (2018) for Spain (€1,000; 2020).

median wages. If the government's proposal were to be implemented, in 2020, Spain would rank fifth overall, with a Kaitz index of close to 65%, surpassing all its benchmark economies. The Kaitz index also illustrates the regional differences mentioned earlier. Using Felgueroso and Jansen's (2018) data, in the Canaries this index would increase from 56% of the median wage in 2018 to 73.1% in 2020, while in Navarre it would increase from 40.5% to 52.9%.

In sum, based on available indicators, the increase in minimum wage proposed by the government would mean that Spain would go from being a country with one of the lowest minimum wages to one of the highest. Coverage ratios for the least privileged groups in Spain would rise to almost 30%.

Support for a minimum wage increase

There are two groups of theories for explaining the job market and each yields a different prediction of the impact of a minimum

wage increase. The most classical theories assume that wages are equivalent to the marginal product of labour and an increase in the minimum wage would leave marginal employees, whose productivity is below the minimum wage, without a job. According to this theory, the minimum wage always destroys jobs as the point of equilibrium is equivalent to the marginal product of labour. The scale of job loss depends on the elasticity of labour demand, which can vary by sector and types of workers, usually higher (*i.e.*, greater job loss) for the very groups the minimum wage is intended to help (young people and less skilled workers).

Card and Krueger (1994) launched the first modern challenge to the idea that the minimum wage significantly reduces employment among the least skilled. They studied changes in employment in fast-food chains in the US, comparing adjacent states before and after one increased its minimum wage. They did not find any real effect on employment; in fact, on occasion they identified a slight positive effect. To explain these results, and similar findings

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in subsequent studies, economists have come up with an alternative theoretical framework to explain the labour market: that because wages are the result of negotiations between companies and workers (the former having greater power), employee wages tend to be below the marginal product of labour. According to this line of reasoning, an increase in the minimum wage should not have a significant impact on employment and will tend to correct employers' surplus bargaining power.

The second school of thought (wages resulting from negotiations and the growing power of companies) has gained support in recent years as a result of evidence such as that provided by Benmelech, Bergman and Hyunseob (2018). Those authors analysed the effect of local labour market concentration in the US in terms of wages. Using data from the US census between 1977 and 2009, they found that employer concentration has increased considerably at the local level over time. This concentration, measured using a normalised Hirschman Herfindhal Index (HHI), has increased from 0.70 between 1977 and 1981 to 0.76 between 2002 and 2009 (as per this normalised index, a reading of 1 implies a single employer in the county in question). The authors find that in keeping with the growing power in the labour market, there is an inverse correlation between employer concentration at the local level and wages, and that this correlation is more pronounced the higher the concentration and increases over time. According to this study, a portion of the increase in wage inequality in the US is attributable to employers' growing power in the labour market.

The relevance of this analysis to the case of Spain depends on the likelihood that a minimum wage earner works in a sector with growing employer power. In this respect, Benmelech *et al.* (2018) find that manufacturing industries facing strong competition from China were among the most

affected industries, suggesting an important role for low skilled labor.

A different but related line of research has found that growth in wages has been lower than that in labour productivity in many countries in recent decades. This trend has been coined “wage decoupling” (from productivity). According to the OECD (2018), based on an average of 27 countries analysed, between 1995 and 2013, labour productivity increased by 30% in real terms, while average wages increased by 23% and median wages by just 15%. This evidence completely contradicts the theories that assume equilibrium wages are equal to the marginal product of labour and, therefore, lends support to the implementation of policies designed to combat inequality, such as minimum wages.

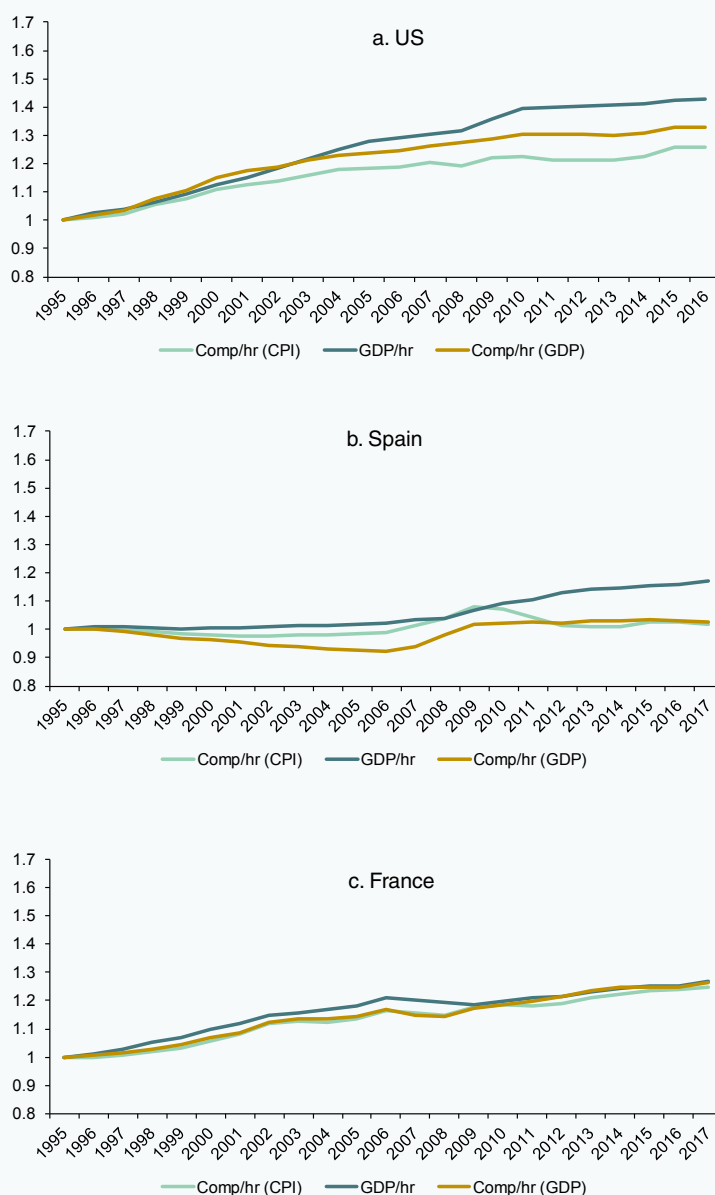
Exhibit 4 shows the trend in GDP per hour worked and the average wage per hour worked, deflated by CPI and separately by the production price index (GDP deflator) in the US, Spain and France. As shown in the exhibit, wages have decoupled significantly from productivity in the US and Spain, but not in France. In the US, hourly wages (deflated by CPI) increased by 17 percentage points less than productivity between 1995 and 2016 (+42% productivity *vs.* +25% wages). [2] In Spain, the difference between the two series is similar, *i.e.*, 15 percentage points (between 1995 and 2017), but is shaped by stagnation in real wages (which increased by just 2% throughout the period) and very moderate growth in productivity (+17% throughout the period). The growth in productivity has been significant only from 2008 and is attributable to a composition effect, *i.e.*, the destruction of less productive jobs during the economic crisis. The reasons for wage decoupling in Spain are not clear, but there appear to be major differences from one sector to the next. The OECD study (2018) reveals very low or no decoupling when the primary, housing and public sectors are stripped from the analysis.

Judging by Exhibit 4, the decoupling of wage purchasing power (Comp/hr, (CPI)) from productivity in Spain is a relatively recent phenomenon since the economic crisis that became more pronounced during

the subsequent recovery. However, the wage series deflated by the production price index (Comp/hr, (GDP)) reveals increasing decoupling from productivity throughout the entire period. [3]

Exhibit 4

Wage decoupling from productivity



Source: Author's own elaboration, based on OECD data.

In conclusion, in Spain, there appears to be a similar trend to that being observed in other developed economies where wage growth has trailed productivity gains in recent decades—a trend that provides arguments against classic labour market theory and lends support to measures designed to reduce wage inequality, such as a minimum wage. However, in the absence of more exhaustive analysis of the drivers, the level of decoupling of wages from productivity appears to depend on the wage measure used and it varies by sector.

Weak correlation between minimum wage and poverty

Jimeno (2018) argues that the minimum wage does not significantly reduce income inequality or poverty because increases in the minimum wage can benefit workers earning low wages, but not necessarily low-income households. For example, in Spain, just 10% of the population living under the poverty threshold are workers who earn the minimum wage. The correlation between being a low earner and a member of a poor household is weak for three reasons.

First, the majority of poor households whose head is aged between 18 and 64 do not have any members in employment, so the minimum wage has no direct effect. Second, in Spain, many workers are poor because they either have precarious contracts that frequently interrupt their employment against their will, or they can only get part-time work. These workers are similarly not affected directly by the minimum wage. Finally, many low earners, particularly young people, are not members of poor households. Several experts maintain that there are other types of policies that are more effective in terms of reducing inequality and poverty, such as universal basic income or a negative income tax.

Estimated impact of minimum wage increases in Spain

There are few recent studies on the impact of minimum wage increases on employment in Spain, but most find relatively insignificant effects on employment in general, even on higher-risk groups, such as youth (*e.g.*, Blázquez, Llorente and Moral, 2011 and Cebrián *et al.*, 2010). However, these findings should be viewed with caution. Adjusted for inflation, the minimum wage was virtually flat in Spain between 1980 and 2004, but has since increased gradually. This increase was concentrated during a period of strong economic growth in Spain that ended with the crisis that began in 2008. According to Blázquez, Llorente and Moral (2011), the corresponding increases in the minimum wage and youth unemployment rate at this time can also be explained by a competitive and highly dynamic labour market and a structural change in demand for employment.

Although in most developed countries the minimum wage increases with worker age, this is not the case in Spain, where the minimum wage has been the same for youth and adults since 1998. The fact that the adult minimum wage is low in Spain could explain the lack of evidence of adverse effects on total employment (Galán and Puente, 2015; Jansen, 2016), [4] but that does not imply a lack of adverse effects for young workers.

Using data from the continuous work history sample (CWHS), Galán and Puente (2015) have estimated the effect of the significant increase in the minimum wage in Spain between 2005 and 2010 on the individual probability of losing one's job. They found that older people experienced the biggest increase in the probability of losing their jobs relative to other age brackets, even the youngest workers (whose productivity is low). In fact, the increase in the probability of losing one's

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job was twice as high for older workers than younger workers.

Specifically, the average probability of losing employment within one year for affected workers between 16 and 24 years old increased from 11.2% to 24.9% as a result of the accumulated increases of the minimum wage during the period analysed (2005-2010), while the corresponding impact for workers over 45 was much higher, rising to 49.9%.

According to the researchers, the reason for this counter-intuitive outcome is the expectation that younger workers will increase their productivity by more than their older peers, whose productivity curve is flat at that stage of their lives. As a result, an employer faced with a uniform increase in the minimum wage may find it more profitable to keep younger employees and let go of older employees.

Based on the results of Galán y Puente (2015), the Bank of Spain (2017) simulates the effects on employment of an increase of the minimum wage of up to 950 euros in 2020. According to this simulation, aggregate employment would be reduced by 1.4% and the employment of directly affected workers (mainly young people and those over 45) would be reduced by 11.3%.

In a more recent study (BBVA, 2017), a slightly lower negative impact is estimated from the increase in the minimum wage in 2017 (+8%), between one and two tenths of the total employment in the long term. According to this study, which analysed the results of two meta analyses that collated over 200 studies of how employment responds to changes in the minimum wage in different economies, periods and sections of the population, the average elasticity was around -0.1 , i.e., a 10%

increase in the minimum wage would result in a reduction in employment of 1%.

Finally, AIRef (2018) simulates the effects of the rise in the minimum wage expected for 2019 and estimates a drop in total employment of 0.15% in 2019 (24,000 fewer jobs). It also notes, but does not estimate, the possibility of a more significant fall in employment in the medium to long term.

Effects of Germany's new minimum wage

In 2015, Angela Merkel's government, in coalition with the socialist party, introduced a first-time ever minimum wage at the federal level. That wage was initially set at 8.5 euros an hour in 2015, where it remained in 2016, and was increased to 8.84 euros in 2017 and 2018. The German case presents an excellent opportunity to study the effects of a sharp change in the minimum wage (zero to 8.5 euros) in an economy similar to Spain. However, the way this policy has been designed in Germany is considerably different from the Spanish structure in several respects, and these differences need to be considered when interpreting the results of the few studies conducted to date.

First, at the time of its introduction, several carve-outs were worked in for a transition period which ran until December 31st, 2016. Also, youth under the age of 18 and apprentices are permanently exempt and the new minimum wage does not apply to people doing a voluntary or mandatory internship of up to three months during their schooling, training or studies. Nor does it apply to long-term job seekers during their first six months in employment. Finally, it is important to note that the minimum wage is equivalent to approximately 48% of the median wage, which is well below the 65% that would be

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reached in Spain in 2020 were the increases currently on the table to be implemented.

There are not many studies of the effects of the minimum wage in Germany, but two stand out. Caliendo *et al.* (2018) argue that the minimum wage introduced in 2015 did not affect all regions in Germany evenly. They use those regional differences to estimate the effects of the minimum wage on employment (difference in differences analysis). The analysis covers a short period: the first two years following the introduction of the minimum wage. The researchers did not find significant effects on employment. They calculate a loss of 140,000 jobs (0.4% of the total), virtually all of which were attributable to the loss of marginal jobs. According to the authors, the lack of effects may be due to the use of other adjustment mechanisms or non-stringent compliance with the new standard.

In the other study of note, Bruttel, Baumann and Dütsch (2017) also looked at a short time period (2015–2016) and found little impact on employment. According to these researchers, the new minimum wage has triggered significant wage growth for low-wage earners, whereas the adverse impacts on employment have been limited to date. The preliminary evidence suggests that companies in the sectors most affected by the measure have responded by reducing working hours and/or increasing employment intensity and product prices. Some have pared back non-wage benefits, reduced employee turnover and attempted to compensate for higher wages by hiring more skilled workers. They also consider that non-compliance may be working as an adjustment mechanism.

However, these moderate effects mask significant differences by worker categories, with adverse effects concentrated among

younger workers and those with more precarious contracts. They found that in 2016 (2015), for example, while total employment in Germany increased by 1.8% (1.4%), employment among youth aged 18 to 24 increased by just 0.6% (–0.1%) and employment among those on part-time contracts fell by 0.9% (–3.1%). These authors estimate a coverage ratio of approximately 11%, *i.e.*, they calculate that in 2014, 11.3% of workers in Germany were earning less than the minimum wage of 8.50 euros an hour. However, the coverage ratio increased to 26.9% for youth aged 18 to 24 (similar to the 29% estimated for Spain by Felgueroso and Jansen) and 38.7% for part-time workers.

Conclusions

The current Spanish government has recently approved increasing the minimum wage to 900 euros in 2019, the biggest increase in 40 years. The minimum wage in Spain is low in comparison with other OECD economies and given the decoupling of wages from labour productivity, the increase in the minimum wage could be in part justified. However, the scale of the minimum wage increase could be described as overly ambitious, or at the very least risky, given evidence that disproportionate increases in the minimum wage can have an adverse effect on employment for groups it is intended to help, such as youth.

It is also not clear whether a minimum wage is the best tool for addressing growing household income inequality as there is no clear correlation between wage levels and household poverty. For all these reasons, the advisable course of action would be to propose gradual increases in the minimum wage to study the impact of these measures on employment in the groups affected. It would also be advisable to establish different minimum wages for different groups of

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workers, as has been done in Germany, where the minimum wage for young workers with little work experience is lower.

Notes

- [1] The Kaitz index is defined as the ratio between the minimum wage and the average (or median) wage for a given group.
- [2] In the US, the comparison between trends in wages and productivity is affected by the choice of wage deflator. Growth in real wages is lower (and wage decoupling from productivity higher) when deflated using CPI rather than the GDP deflator.
- [3] The appropriateness of the measure depends on the purpose of the analysis. The readings deflated by CPI enable a comparison of the trend in productivity with that in the purchasing power of wages. The readings deflated by the GDP deflator are a more stringent test of the classical labour market theory which holds that wages and productivity should etch out similar trends (as both series are deflated using the same price index).
- [4] In the case of the increases made between 2005 and 2010, only between 0.6% and 0.9% of the total number of workers per year were affected.

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