Spanish wages during the Great Recession: Has the 2012 labour reform had an impact?

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The majority of Spain´s wage adjustment is still attributable to external flexibility. Nonetheless, internal flexibility is playing an ever-increasing role in the explanation of income changes in the two years following Spain´s 2012 labour reform, providing some evidence in support of its success.

This article examines the evolution of Spanish wages during the height of Spain´s economic crisis with a particular focus on patterns observed prior to and post the introduction of the 2012 labour reform. Official statistics show that salaries in Spain decreased and part-time work increased after 2012. By disaggregating a sample of Spanish workers into "stayers" *and* "movers," *this article presents empirical evidence of the acceleration in the decrease of* "stayers" *wages in the wake of the reform, interpreted as an increase in internal flexibility. The bulk of Spain´s wage correction is still being achieved through external flexibility. However, the rising contribution of internal flexibility indicates that the 2012 reform succeeded in increasing reliance on this type of wage adjustment mechanism. Unfortunately, temporary workers appear to still bear the brunt of the wage adjustment.*

In February 2012, the Spanish government passed one of the most ambitious labour market reforms in decades. The reform was an attempt to bring flexibility to a market characterized by high unemployment, rigid wages and a dual system of job protection.

At the end of 2008, when economic conditions in Spain began to deteriorate, workers on temporary contracts greatly feared the prospect of losing their jobs as a consequence of "external flexibility" – the process by which firms adapt to adverse labour market conditions by firing workers instead of adjusting internal conditions, such as wages and work schedules.

At that time, the Spanish unemployment rate was at a record low of less than 9 percent, extremely low for the country´s historical standards, with one third of employees working under temporary contracts. The rate of temporary employment in Spain increased abruptly after 1984, following the approval of new legislation, which made it easier for companies to hire on a temporary basis. The intention was to introduce flexibility into a heavily regulated, rigid labour market. The result was the creation of a dual market with approximately one third of workers left unprotected, while two thirds of employees were protected against dismissal by very high severance payments. Hence, temporary workers served as a buffer in the event of an

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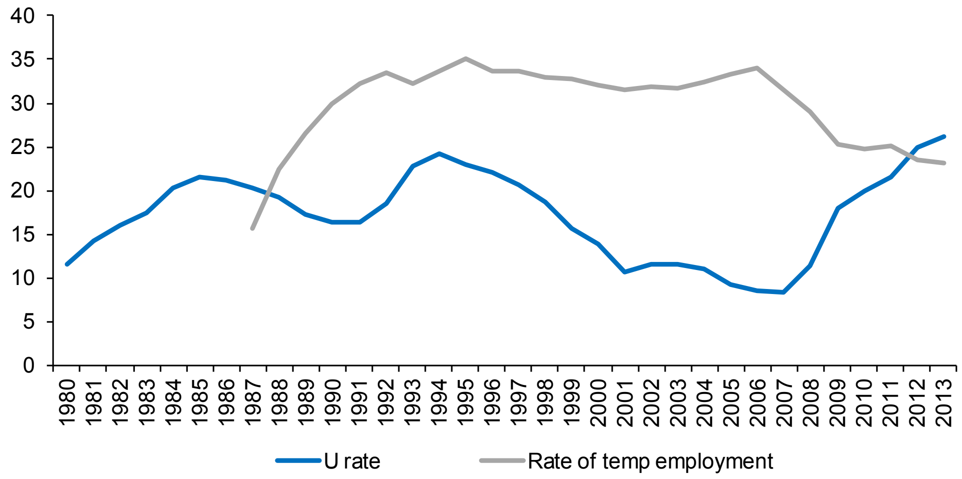
Exhibit 1

Spain's unemployment and temporary jobs: 2008-2013



Source: OECD.

economic crisis. From 2007 to 2011, the rate of temporary employment declined by almost ten percentage points, from 35% to 25%, reflecting the massive destruction of temporary jobs (see Exhibit 1).

It was in this context that the 2012 labour market reform was passed. There were changes in many important aspects related to hiring, firing and wage setting. A common goal of these changes was increasing "internal flexibility," the process by which companies adjust employees´ working conditions without resorting to dismissals or non-renewal of contracts. As such, the new norm made it easier for firms to switch employees from full-time to part-time work. It also broadened the scope for firms to adjust wages downward. For example, by allowing for the non-application of an expired wage setting agreement beyond one year if a new one had not yet been established. Finally, by reducing average severance payments, the law lowered the bargaining power of permanent workers who, as a consequence, would accept wage reductions that otherwise would not have even been considered.

After 2012, many official statistics showed that salaries decreased in Spain and that part-time work increase. This was often trumpeted as evidence of greater "internal flexibility" and the success of the 2012 reform. However, at the same time, jobs continued to be destroyed in large numbers, mainly temporary jobs, hence questioning the real impact of the new regulatory landscape. Those that criticized the 2012 reform argued that decreases in wages were a consequence of job displacement, that is, continued external flexibility, rather than internal flexibility.

The question of whether the changes observed in the labour market are caused by external rather than internal flexibility is an important one. However, official statistics often lack the detailed information necessary to distinguish between internal and external flexibility. For example, are average wages declining because workers and firms re-negotiate working conditions, or is this due to the fact that workers are displaced and move to firms that pay lower starting salaries? Is the increase in part-time work the result of adjustments of work schedules within firms or rather the effect of displaced workers finding new job opportunities as part-timers? Only datasets that follow workers throughout a period of analysis can answer these types of questions. This article takes advantage of an Administrative Records database to present evidence of the wage adjustment process in Spain during the worst years of the economic crisis, from 2008 to 2013. It looks at wages of 98,960 males aged 18 to 55 who are observed working in wage and salary employment in 2008 and in 2013.[2] The annual wages of two distinct groups of workers, stayers and movers, are compared. Stayers are those sticking to the same employer and the same job throughout the entire period of analysis, whereas movers change firm and may go through periods of unemployment between 2008 and 2013. The evolution of the wages of stayers offers a good indicator of internal flexibility since jobs and workers are held constant throughout. Conversely, changes affecting movers are an indication of the impact of external flexibility on wages. If internal flexibility is important, we should not see big differences between the first and the second group of workers. However, if external flexibility is still what drives the Spanish labour market, we should see much bigger drops in wages in the case of movers.

The accelerated pace of decreasing wages of stayers after the reform suggests it has contributed to a greater degree of internal flexibility in Spain, with the main mechanism of internal flexibility being the reduction of compensation per hour worked.

Data show that between 2008 and 2013, wages decreased much more in the case of movers (17% for movers versus 1.6% in the case of stayers). However, wages of stayers decreased at an accelerated rate since 2012, losing 5% in real terms in just two years. Even though the process of decreasing wages precedes the 2012 reform, it gains pace after 2012, suggesting that the February 2012 reform has contributed to a greater degree of internal flexibility in Spain. The main mechanism of internal flexibility is the reduction of compensation per hour worked, rather than a reduction of the amount of time worked. Hence, the increase of the incidence of part-time work among males that we see in aggregate statistics is the result of job shedding and not the effect of an adjustment within firms.

Wages across types of workers

Exhibit 2 shows the evolution of annual wages for individuals according to their position in the wage distribution in the first quarter of 2008. Individuals are divided into 5 groups or quintiles. Quintile 1 corresponds to the 20% of individuals with the lowest wages in 2008, quintile 5 corresponds to the 20% of individuals with the highest wages in 2008, etc.[3] Annual wages decreased 17% on average for movers and a mere 1.6% for stayers. Therefore, although wages of stayers are declining at an accelerated rate post reform, if one looks at the entire period of analysis, it seems that external flexibility is driving most of the wage adjustment process in Spain during the economic crisis.

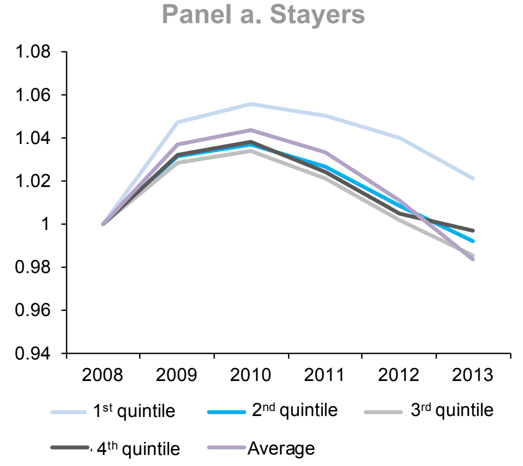
Also interesting, wages of stayers increased between 2008 and 2010, especially for low paid individuals, whereas salaries of movers decreased since the start of the economic recession. However, even though stayers and

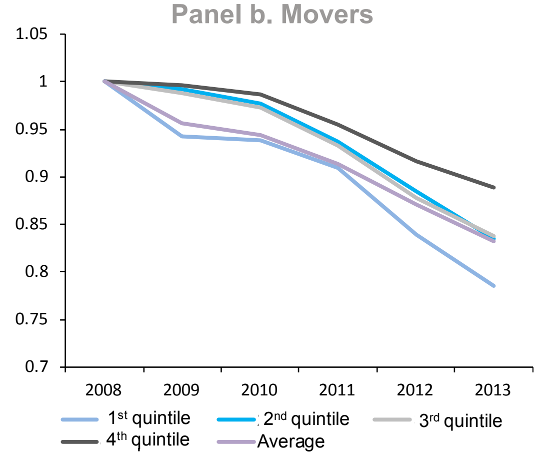
[2] The data come from the Administrative records of the Spanish Social Security (known in Spain as *Muestra Contínua de las Vidas Laborales,* MCVL, hereafter). The MCVL has information on a representative 4% sample of all Spanish individuals who were either employed or receiving a pension during the survey year. This analysis is based on a 60% random sample of all males aged 18 to 55 observed working in 2008 and in 2013 and who have never been self-employed between those years. 2013 is the last year available in the MCVL.

[3] The figure omits workers in the 5th quantile due to topcoding *(i.e.,* the data do not capture the changes in the salaries of those workers because the information is topcoded in Social Security records).

Exhibit 2

Annual gross salary* by position (quintile) in the wage distribution: 2008-2013
(Index: 2008=1)



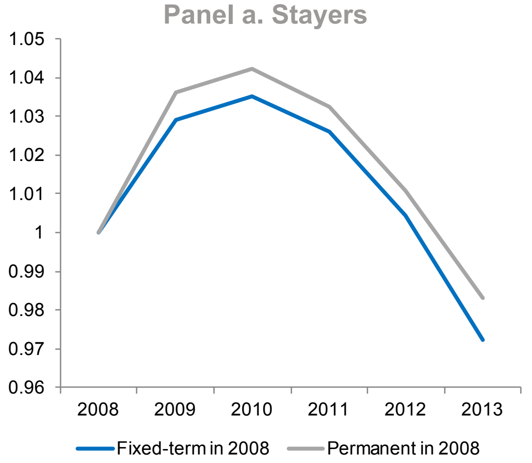


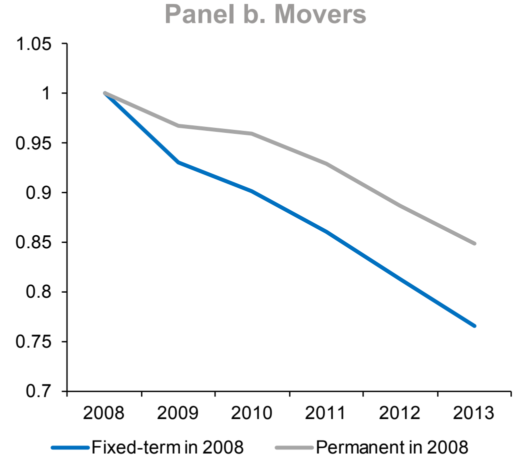
Note: (*) Salaries are expressed in real terms (2008 euro) and deflated using the Consumer Price Index.
Source: Author´s own elaboration and Social Security database (MCVL).

movers behaved very differently during the first three years of the crisis, their incomes evolved more similarly the years afterwards, especially since 2012. During 2012 and 2013, wages of stayers and movers have decreased on average 5% and 8%, respectively. And even though it is true that stayers' salaries started to drop in 2011, before the 2012 reform, the rate of change has gained pace since 2012, with wages dropping only 1% between 2010 and 2011 as opposed to 2.5% per year during 2012 and 2013. Hence, as stated previously, this reinforces the notion that

Exhibit 3

Annual gross salary by type of contract in 2008: 2008-2013
(Index: 2008=1)





Source: Author´s own elaboration and Social Security database (MCVL).

the February 2012 reform has contributed to internal flexibility in Spain's labour market.

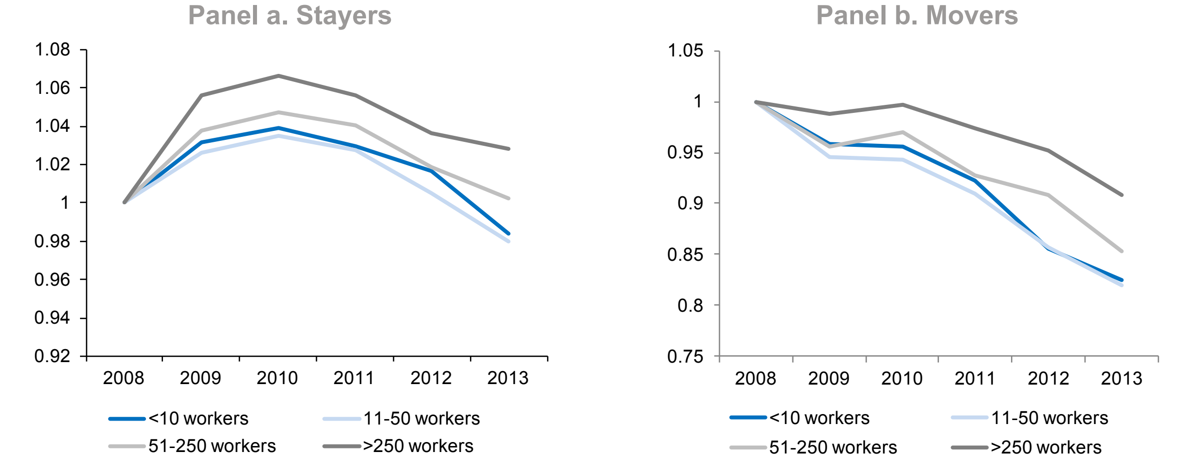
Moreover, the rate of wage decline of movers does not show the same acceleration after 2012, consistent with the notion that the new regulatory environment mostly affected the wage setting process inside firms.

Exhibit 3 shows the evolution of wages across the two groups of workers and according to the type of contract that the individual held at the start of the period of analysis – 2008. Wages of temporary workers declined more than those of permanent workers, but the difference is notoriously larger in the case of movers. For movers, between 2008 and 2013, wages of temporary workers declined 25% whereas permanent workers experienced a wage decline ten percentage points lower, of 15%. In the case of stayers, once more we see that wages declined at an accelerated rate since 2012, with an accumulated drop of 6% during 2012 and 2013. Consistent with the idea of internal flexibility, the wages of permanent workers that stayed with the same firm declined as much as those of their colleagues working under a temporary contract. A parallel not seen in the case of movers, since unprotected workers suffer more intensely the consequences of job displacement.

We turn now to Exhibit 4, which shows the evolution of wages across groups of firms defined by the size of their workforce in 2008. In general, we see that workers in larger firms faced a much better outlook than workers in small firms, regardless of whether those individuals later on switched to another firm or instead stayed working for the same employer. Stayers that in 2008 were working in large firms, of more than 250 employees, did not see any decrease in real wages between 2008 and 2013. Movers working in large firms in 2008 experienced an accumulated drop in wages of 9%. This contrasts with the much larger falls in wages for workers initially employed in small firms, of less than ten employees, with stayers losing 2% and movers 17%. This comparison suggests that small firms were more negatively affected by the economic crisis than larger firms. This is also confirmed by panel (b), in which we can see that movers in large firms did quite well until 2010. If this is so, and if the 2012 reform contributed to internal flexibility, we should see wages dropping more in small firms than in larger

Exhibit 4

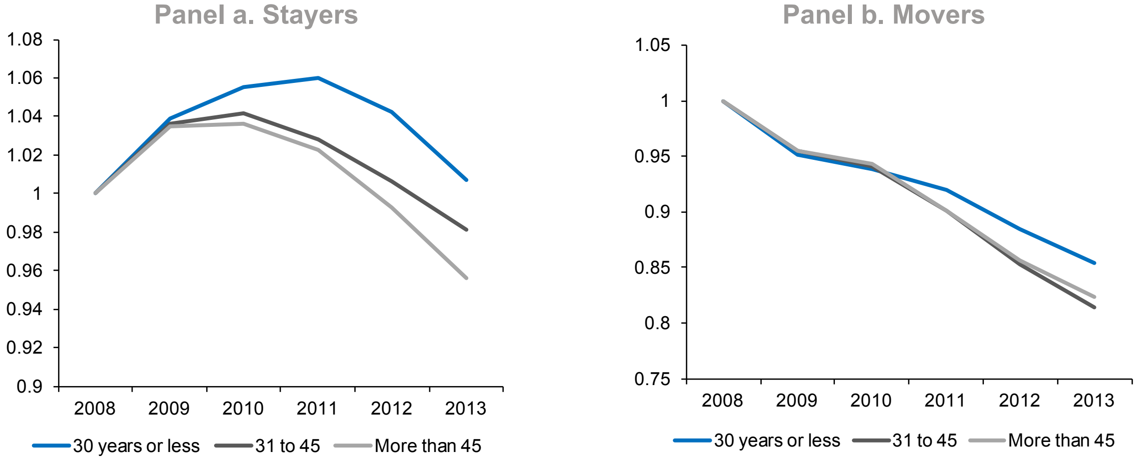
Annual gross salary by size of firm in 2008: 2008-2013
(Index: 2008=1)



Source: Author´s own elaboration and Social Security database (MCVL).

Exhibit 5

Annual gross salary by worker age in 2008: 2008-2013
(Index: 2008=1)



Source: Author´s own elaboration and Social Security database (MCVL).

ones. This is precisely what we see in panel (a) of Exhibit 4, with stayers in small firms losing 4.5% since 2012 compared to just 2.7% in the case of stayers in firms larger than 250 employees.

On a related note, panel (a) shows a deceleration of the wage adjustment process in larger firms in 2013. This is possibly due to the fact that large firms, being more exposed to international markets, benefitted from the recent Spanish export boom.

Exhibit 5 looks at wage trends of individuals grouped by age in 2008. In general, older workers suffered a bigger drop in wages, but the difference between age groups is much more evident in the case of stayers than movers. The difference has to do with pre-2012 patterns, with younger workers' wages increasing to a larger extent in real terms than wages of older workers. Post-2012, all groups experienced similar drops in wages between 4.7% and 6.6%, combining 2012 and 2013. These magnitudes are quite similar to the drop in wages of movers, which ranges between 6.5% for younger workers and 8.7% for workers aged 31 to 45. The fact that wages of movers and stayers evolved similarly post-2012, but very differently before 2012, reinforces once again the idea that the 2012 labour market reform increased internal flexibility in Spain.

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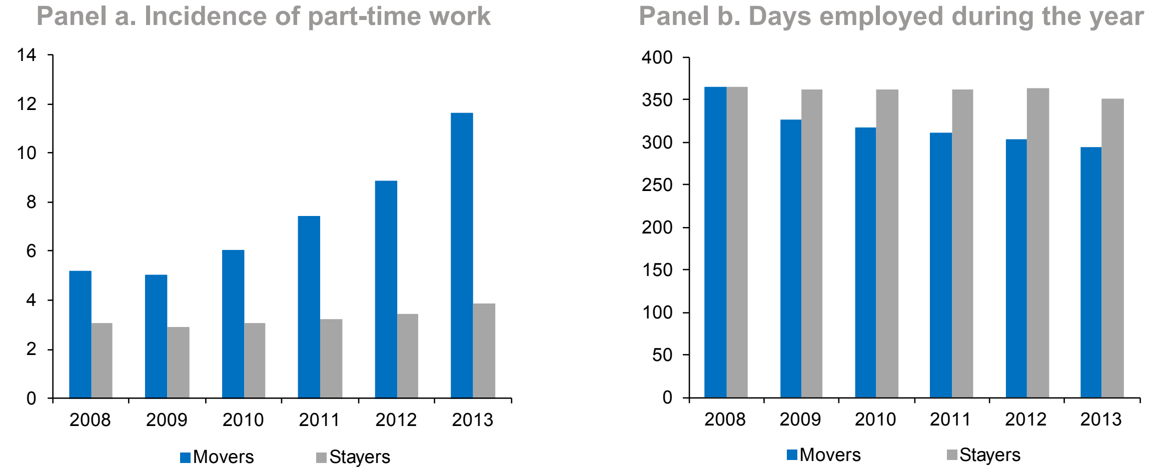
Wage adjustment mechanisms

Workers' annual wages can fall because they switch from full-time to part-time work, because individuals are employed during a shorter part of the year or because the compensation that they receive for the same amount of work falls. The difference between internal and external flexibility is that in the former, these changes occur while the worker maintains his job with the same employer, whereas in the latter, work time and compensation fall when the worker changes firm. The objective

Exhibit 6

Part-time work and days employed by worker type: 2008-2013



Source: Author´s own elaboration and Social Security database (MCVL).

of the 2012 reform was that jobs be saved in exchange for wage and work-time flexibility within firms. However, it is unclear whether the increase of part-time work among males is the result of the regulatory changes, or instead the consequence of job displacement in the midst of the recession. Since we follow individuals' work trajectories during the years before and after the reform, we can assess the relative importance of each mechanism by comparing the patterns of change of movers and stayers. This is shown in Exhibit 6.

In panel (a) of the exhibit, we see the incidence of part-time work between 2008 and 2013. In 2008, part-time work was slightly less frequent among stayers (3.06%) compared to movers (5.21%). However, that small difference of just two percentage points grew into a much bigger gap at the end of the period. In 2013, the part-time rate of movers (11.63%) is more than three times larger than the rate of stayers (3.84%), which basically did not change during the six years. This suggests that the recent increase of part-time work among males in Spain has been the result of workers losing their jobs, not the effect of the regulatory changes. This is in conflict with the objective of the 2012 reform, which aimed at firms not firing workers but rather asking them to work part-time.

Panel (b) of Exhibit 5 tells a similar story by looking at the amount of time that workers remained employed during the year. Stayers continue to be employed most of the year, with an average of 352 days in 2013 and little change since 2008. Instead, movers experience a constant reduction in the part of the year that they remained employed, with an average of 295 days in 2013, 19% less than at the start of the period in 2008.

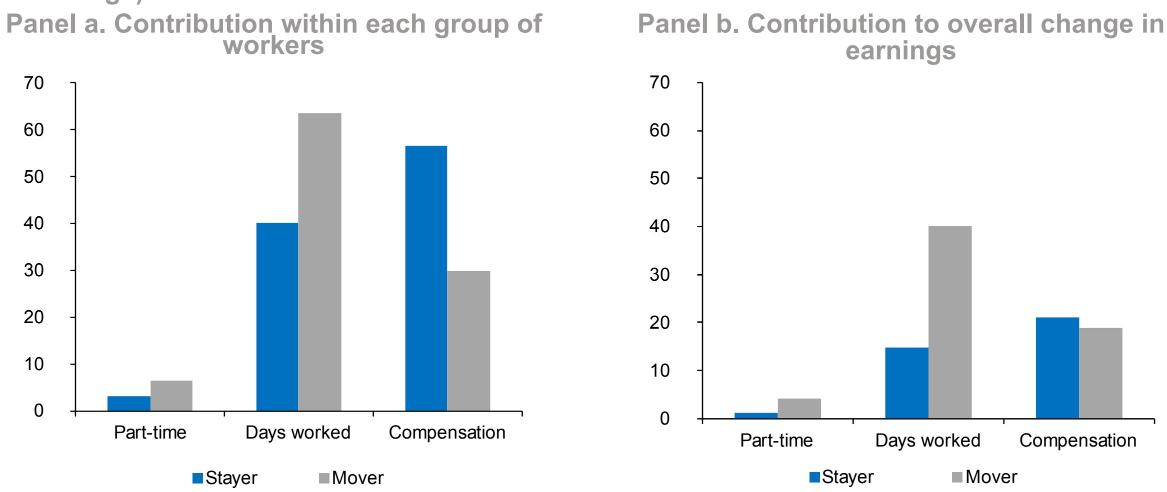
Disaggregating the changes in wages into external and internal flexibility

In the preceding sections, we have seen that the wages of stayers evolved very differently from those of movers during the economic recession. The relative importance of internal and external flexibility to explain the observed changes in wages will depend on the evolution of wages of each group of workers and on the relative importance of each group in aggregate employment. In this section, we disaggregate the changes in wages into external and internal flexibility components. For example, the increase in the incidence of part-time work has been responsible for part of the wage deflation process in Spain, however the extent to which this is due to external rather than internal

Exhibit 7

Contribution to the change in wages between 2008 and 2013

(Percentage)



Source: Author´s own elaboration and Social Security database (MCVL).

flexibility will depend on the evolution of part-time work among stayers compared to movers and on the relative weight of each group of workers in overall employment.

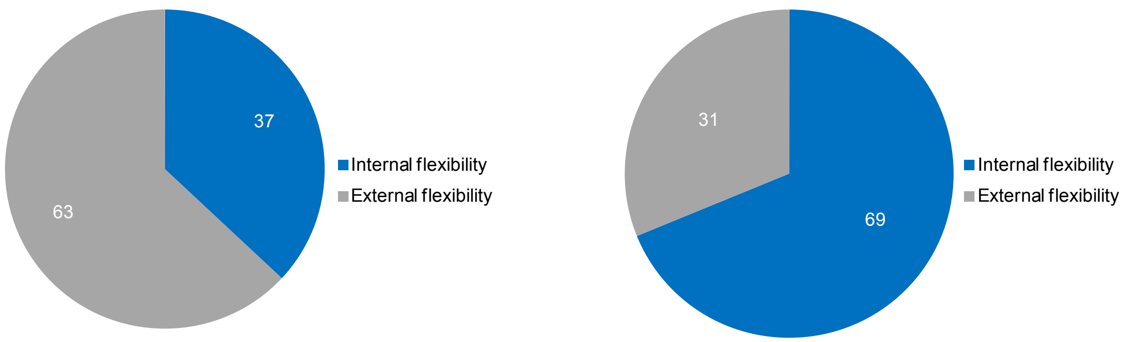
Exhibit 7 shows the results of a disaggregated analysis where wages are estimated as a function of worker and firm characteristics and also the amount of work.[4] Panel (a) of the exhibit shows the contribution of each factor in explaining the estimated change in wages between 2008 and 2013 for each group of workers, movers and stayers. Panel (b) displays the contribution of each factor in explaining the change in wages for all groups of workers pooled together. Part-time work is the least important factor, explaining at most 10% of the change in wages between 2008 and 2013. This is true if one considers groups individually (panel a) but also if one looks at wages of the pooled sample (panel b). The decrease of days worked is the most important element when it comes to explaining the evolution of wages of movers, accounting for more than 60% of the total. However, because movers are just 37% of all individuals in the sample, the contribution of days worked by movers to overall wage losses between 2008 and 2013 is 40%. In the case of stayers, days worked is less important, explaining only 40% of their wages trend, and 15% of the total. The story is different when one looks at compensation, the other determinant of wage flexibility. Compensation here refers to annual payment for a job with the same characteristics in 2013 as in 2008. Changes in compensation explain 56% of stayers' loss of wages and 30% in the case of movers. However, the interpretation for the two groups of workers is different. In the case of stayers, these are wage adjustments that occur within the firm and for the same job. This is clearly an example of internal flexibility. In the case of movers, these changes in compensation occur because workers move to other firms where they receive a lower starting wage. In fact, individuals that switch firms tend to go to higher paying firms and industries (the surviving firms), but there, new workers are offered lower starting wages than before the crisis. What this indicates is that firms have been able to adjust wages downwards

[4] The exhibit shows the results of an Oaxaca decomposition in which yearly earnings are regressed against education, age, type of contract, industry, firm size, a part-time dummy and days worked during the year.

Exhibit 8

Explaining the change in annual wages: External *versus* internal flexibility

Panel a. 2008-2013 **Panel b. 2012-2013**



Source: Author´s own elaboration and Social Security database (MCVL).

not only because they managed to change the compensation scheme of stable employees, but also, and importantly, because they have lowered the starting salaries of new hires.

Considering the sum of the components from movers and stayers in panel (b) of Exhibit 7, one can get a sense of the proportion of the change of wages between 2008 and 2013 that can be attributed to internal flexibility and the proportion that can be attributed to external flexibility. This is shown in panel (a) of Exhibit 8, with roughly two thirds of the change in wages between 2008 and 2013 due to external flexibility factors and one third due to internal flexibility. Considering the adjustment in wages during the last two years, the picture is completely different, with almost 70% of the total wage adjustment due to internal flexibility factors. One could interpret the contrast between the two panels of Exhibit 8 as evidence that the February 2012 reform succeeded in increasing internal flexibility. However, an alternative explanation is that the job destruction process was concentrated in the first years of the economic crisis. For example, between 2008 and 2011, more than 2 million jobs held by males were lost, representing 17% of the total. In the next two years, the Spanish economy destroyed jobs but at a much lower rate, 675 thousand jobs, or 6% of the total. Consistent with this, in the last two years of our dataset, the proportion of movers is only 20%.

Roughly two thirds of the change in wages between 2008 and 2013 was due to external flexibility factors and one third due to internal flexibility. During the last two years, the picture is completely different, with almost 70% of the total wage adjustment due to internal flexibility.

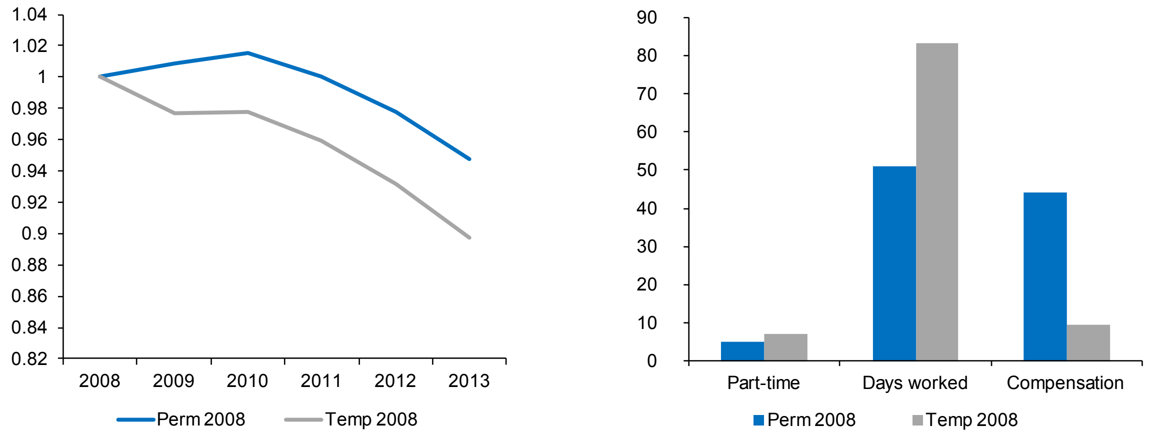
Annual wages of permanent *versus* temporary workers

In the previous sections, we have seen that the economic crisis has caused a reduction of

Exhibit 9

Annual wages of permanent versus temporary workers in 2008: 2008 to 2013

Panel a. Median wages (Index: 2008=1) **Panel b. Contribution within each group of workers (%)**



Source: Author´s own elaboration and Social Security database (MCVL).

labour income for employed individuals in Spain, but that the adjustment process has been unevenly distributed, with movers suffering a disproportionate share of the burden of the adjustment. One distinct feature of the Spanish labour market is its segmentation by type of contract, permanent versus temporary. Because temporary workers have a higher probability to become movers and to be affected by external flexibility, one would expect that this group of workers has suffered a more intense wage adjustment compared to workers that had a permanent contract at the start of the economic recession. In our dataset, the probability of being a mover is 54% if the individual had a temporary contract in 2008, and 33% if he had a permanent contract. Exhibit 9 shows the evolution of median annual wages for these two groups of workers (panel (a)) and the relative importance of each factor in explaining the adjustment of wages (panel (b)).

Not surprisingly, between 2008 and 2013, workers with a temporary contract suffered a larger drop in wages, of 10.3%, compared to workers who had a permanent contract in 2008, with incomes dropping by only 5.2%. Also, consistent with the higher turnover associated to temporary workers and the different adjustment patterns of movers and stayers that we have seen before, workers with temporary contracts suffered because they work fewer days, whereas in the case of workers with a permanent contract, the adjustment is due to both fewer days worked and lower compensation per hour.

Conclusion

An analysis of the work and wage trajectories of 98,960 males employed between 2008 and 2013 reveals that labour incomes adjusted downwards in Spain due to both external and internal flexibility factors. Although external flexibility still accounts for the lion´s share of wage adjustment in Spain, internal flexibility is more important to explain wage adjustment during the last two years and after the implementation of the February 2012 reform. Considering the entire six year period, workers with temporary contracts at the start of the economic crisis have suffered a wage adjustment twice as large as that of workers with a permanent contract. This difference can be attributed to the fact that temporary workers suffer from the more negative consequences of external flexibility, mainly because they end up working fewer days a year and because the starting salaries in new jobs are much lower than those before the crisis.