On fallacies surrounding the discussion about the reduction of social security contributions

Pedro Portugal
Banco de Portugal
Nova School of Business and Economics

July 2015

"Nem tudo o que parece misericórdia é misericórdia. Há misericórdias, que são misericórdias e mentiras: parecem misericórdias e são respeitos, parecem misericórdias e são interesses, parecem misericórdias e são afectos tão contrários desta virtude, como de todas."

Sermão ao Enterro dos Ossos dos Enforcados, Padre António Vieira

"Como todas as coisas com ar de certas, e que se espalham, isto é asneira; se não fosse, não se teria espalhado."

Notas para a Recordação do Meu Mestre Caeiro, Álvaro de Campos

"The scientific community rewards those that produce strong novel findings. The public, impatient for solutions to its pressing concerns, rewards those who offer simple analysis leading to unequivocal policy recommendations. These incentives make it tempting to maintain assumptions far stronger than they can persuasively defend, in order to draw strong conclusions."

Policy Analysis with Incredible Certitude, Charles Mansky

The public discussion of policies on the reduction of social security contributions is responsible for a recurrent series of equivocations which can neither be sustained by economic theory nor the accumulated evidence of empirical research. This short paper aims to present and discuss these fallacies and to suggest a framework for the more promising

---

The opinions expressed in this article are those of the authors and do not necessarily coincide with those of Banco de Portugal or the Eurosystem. Any errors and omissions are the sole responsibility of the authors.

E-mail: pportugal@bportugal.pt

design of a job creation policy based on a reduction of social security contributions.

Labour costs as a proportion of production costs are so small that a reduction of social security contributions will not have a significant impact on competitiveness or job creation

This argument, which is frequently used to argue against policies for the reduction of labour costs, suffers from two illusions. Firstly it disregards the fact that a company is not an economy and that, in general, the corporate production function incorporates inputs from other companies that, in turn, also use the labour factor and so on. This type of abusive generalisation is referred to as the composition fallacy. It is somewhat surprising that economists, particularly those more devoted to value theory, allow themselves to be taken in by this paralogism. Secondly, the perception of the insignificance of the effects of the reduction of labour costs is often confused by the illusion of apparently very small numbers. The impact of reductions of labour costs involving a few percentage points is, therefore, often disregarded. A one percentage point increase in total labour costs, however, effectively represents a very large amount which can translate into a highly significant reduction of employment (e.g. one per cent) owing to decisions made by companies on the basis of their adjustment margins. Adjustment bands will make several companies change their employment levels while others will not. Inattentive economists are, once again, led astray by the composition fallacy.

As the number of jobs is fixed, unemployment can only be reduced by the reshuffling of workers or job-sharing

This extravagant conception of the working of the labour market is, evidently in a collision course with the basic principles of the labour economy theory that establishes employment and the equilibrium wage through the conjunction of supply and demand labour functions. The idea of a fixed number of jobs underlies the unjustified fear of technological progress and corresponding productivity growth. The ill-fated application of massive early retirement programmes was also largely rooted in this notion, in spite of the fact that substitutability between younger and older workers is clearly very weak. Similarly policies for the reduction of working hours or job-sharing that emphasize the substitution effect between hours and employment, ignoring the effect of scale (reduction of production deriving from higher labour costs), are implicitly justified by the existence of a fixed number of jobs.

Labour costs do not have any impact on employment levels

A literal interpretation of this proposition evidently contradicts the bases of production theory which defines the desired employment level based on the relationship between the marginal labour cost (i.e. wages) and the product's marginal value. A more "benevolent" interpretation will reflect the idea that the elasticity of labour demand (sensitivity of level of employment to changes in labour costs) will be close to zero. Empirical research, however, accepts that lower labour costs are the most effective means of job creation and retention. Labour economists accept that a one per cent decline of labour costs will correspond to a 0.6 per cent increase in employment (Hamermesh (1993); Addison *et al.* (2014)). The very few studies on the Portuguese labour market have published comparable values for the elasticity of labour, varying between -0.6 and -1 (Varejão e Portugal (2007); Esperança (2011)).

The effect of the nominal incidence of social security contributions coincides with their effective incidence

Economists have, for many years, differentiated between the nominal and effective incidence of tax on labour (Brittain (1971)). In competing markets (or even in monopsony labour markets), whether the social security contribution rate incides (nominally) on the employee or employer is irrelevant. Effectively an employee's only interest is his/her net income whereas for the employer it is the total cost of employing the worker. The way in which the contribution is split (either one or the other) is of no importance as it will generate the same employment and wage equilibrium. A reduction of the employer's contribution therefore translates into a higher wage for the worker (in addition to increased employment). Similarly, a reduction of the worker's contribution will translate into a lower negotiated wage (albeit a higher net wage in any event). The underlying reasoning is that, with the possibility of renegotiating the wage, the balance is established on the basis of elasticities of labour supply and demand factors.

This said, whether the social security contributions are levied on the worker or employer in the event of nominal wage rigidity is not irrelevant. Effectively in the event of the existence of wage floor (which could be a minimum wage or a bargained wage negotiated on the basis of a collective agreement) that is higher than the wage which would be established by the market, then a reduction of the employer's social security contributions would translate into an increase in employment, whereas a reduction of the employee's social security contributions would take the form of an increase in the net wage. The figure presented below compares the effect of the reduction of social security contributions in cases in which the floor wage is an active restriction, to the opposite case. Works by Carneiro *et al.* (2014), Addison *et al.* (2015), Martins e Portugal (2014) and Guimarães *et al.* (2015) provide highly suggestive evidence of the presence of strong, nominal wage rigidity in the Portuguese labour market. The indication of nominal rigidity is especially relevant in low inflation regimes.

Temporary reductions of labour costs have permanent effects on employment

To expect that unsustained reductions of labour costs will originate lasting effects on employment is more based on a willingness to believe rather than on logic and evidence. There is, however, no shortage of active employment policies that are based on temporary reductions of social security contributions. Employers are generally interested in long term labour relationships on which they incur significant hiring and training costs. The

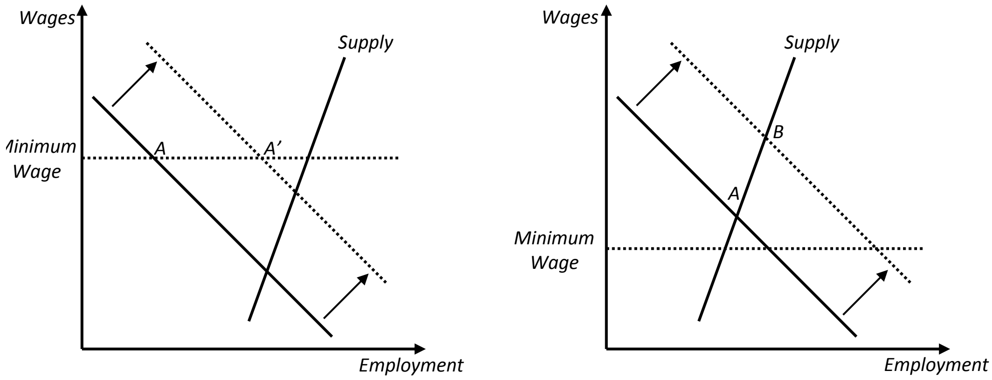

FIGURE 1: The effect of the wage floor in the reduction of social security contributions.
Source: Authors' calculations.

existence of adjustment costs transforms labour into a quasi-fixed factor (Oi (1962)) partially insulating labour from temporary shocks in the demand for product or labour costs. It does not, herein, come as any surprise to note that the effects of policies for the temporary reduction of labour costs are trivial.

How then should a job promotion policy based on the reduction of social security contributions be produced?

This short paper shows that job promotion is best served by means of a **permanent** reduction of social security contributions by employers on their **low wage workers**. Workers with low levels of education and professional skills who still account for a highly significant proportion of the Portuguese active population have been facing a decreasing demand for their services (skilled-biased technological change). It is also in the case of the lowest paid workers that nominal wage rigidity has a more severe effect on employment, insofar as the most important component of their human capital takes the form of the corpus of practical knowledge they accumulate through their professional experience in the companies in which they work. Empirical evidence also suggests that the effect of a reduction of social security contributions on the employment of less skilled workers is significantly more pronounced than in the case of highly paid workers in which an increase of wages is particularly noted (Cahuc (2003); Cahuc e Zylberberg (2005); Kugler e Kugler (2008)).

Lastly, it is understood that any reduction of contributions should be **fiscally neutral**. Forms of financing based on tax increases on consumption have been studied in great depth (Franco (2013)). The saving deriving from the elimination of the various programmes for the temporary reduction of social security contributions would be a natural choice, pursuant to the scope of this discussion. Rationalisation of the rules for attributing unemployment subsidies to avoid situations in which the length of subsidised unemployment exceeds the period of contributions may also help to finance the reduction of social security contributions. Lastly, making the period of duration of the unemployment subsidy contingent upon the accumulated period of contributions, instead of an unemployed person's age, may also generate a reduction of expenditure in addition to strengthening the tax-benefit link.

References

Addison, J. T., P. Portugal, e J. Varejão (2014). "Labour Demand Research: Toward a Better Match between Better Theory and Better Data." *Labour Economics*, 30(C), 677–689.

Addison, J. T., P. Portugal, e H. Vilares (2015). "Unions and Collective Bargaining in the Wake of the Great Recession." *IZA Discussion Paper*, (8943).

Brittain, J. (1971). "The Incidence of Social Security Taxes." *American Economic Review*, 61, 110–125.

Cahuc, P. (2003). "Baisser les Charges Sociales, Jusqu'ou et Comment?" *Revue Française d'Economie*, 17(3), 3–54.

Cahuc, P. e A. Zylberberg (2005). "L'Impact dês Réduction de Cotisations Sociales." *Les Cahiers Français - Edition La Docummentation Française*, 333.

Carneiro, A., P. Portugal, e J. Varejão (2014). "Catastrophic Job Destruction during Portuguese Economic Crisis." *Journal of Macroeconomics*, 39(PB), 444–457.

Esperança, P. (2011). "Labor Adjustment Dynamics: An Application of System GMM." *GEE working paper*.

Franco, F. (2013). "External Rebalancing in the EMU, the Case of Portugal." *mimeo*.

Guimarães, P., F. Martins, e P. Portugal (2015). "Upward Nominal Wage Rigidity." *mimeo*.

Hamermesh, D. (1993). "Labor Demand." *Princeton University Press*.

Kugler, A. e E M. Kugler (2008). "Labor Market Effects of Payroll Taxes in Developing Countries." *NBER Working Paper*, 13855.

Martins, F. e P. Portugal (2014). "Ajustamento dos Salários Durante a Grande Recessão." *Boletim Económico do Banco de Portugal*.

Oi, W. (1962). "Labor as a Quasi-Fixed Cost." *Journal of Political Economy Review*, 70, 538–555.

Varejão, J. e P. Portugal (2007). "Spatial and Temporal Aggregation in the Estimation of Labor Demand Functions." *IZA Discussion Paper*, 2701.