Effects of a reduction in employers’ Social Security contributions: Evidence from Andalusia

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Abstract: (minimum 1500 words)

The high and persistent levels of unemployment reached after the Great Recession require structural labor market reforms that need to be accompanied by employment-friendly fiscal policies with effects both in the short and long run. In this vein, programs to reduce employers’ Social Security contributions (ESSC) are being widely discussed in both the political arena and academic forums as tools for promoting economic growth and boosting employment.

These programs are part of those reforms concerning the tax wedge, that is, the net tax burden on labor income borne by both the employer and the employee. Reducing the tax wedge is found to have different effects on employment across developed economies, depending on interactions with the corresponding labor market institutions (Bassanini and Duval 2006; Turrini 2013). However, in reference to one specific tax component, cuts in employers’ Social Security contributions (ESSC) seem to have a longer-lasting positive impact on employment than cuts in employees’ contributions
This result may stem from the fact that the ESSC usually are the larger component of the labor tax wedge and these cuts take time to pass through into higher take-home wages. This is particularly the case in countries with stronger hiring and firing regulations, which prevent market-clearing wage levels and more rapid wage adjustments.

On the financing side, the cuts in ESSC require offsetting measures that shift the financial costs to other taxes, ensuring budget neutrality for those countries where fiscal consolidation is called for. Such a revenue-neutral shift is usually accomplished by increasing indirect taxes; this shift would have a positive but small impact on both employment and trade balance (European Commission 2013). Indeed, the empirical evidence suggests that the tax shift needs to be sizeable to generate a significant employment effect (De Mooij and Keen 2013), and it could have negative impact in terms of inequality if compensatory measures are not taken (Decoster et al. 2011).

The Spanish labor market, as in many other European countries, has been deeply affected by the economic crisis. Unemployment exhibits one of the highest figures among EU countries, outranked only by Greece, and it cannot be solved by expansionary fiscal policies due to its debt bias. As expected, this situation has raised a set of recommendations for tax reform by several supranational organizations, such as the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the European Union (EU) among others. These recommendations highlight fiscal consolidation as a priority task and the shifting of the tax burden from direct to indirect taxation, in order to achieve the potential benefits on efficiency, competitiveness, economic growth and employment levels.

Drawing on these recommendations, the Spanish Confederation of Enterprise Organizations (Confederacion Española de Organizaciones Empresariales, CEOE) has made a set of reform proposals concerning both the structure of the contributory system and primarily the reduction of the ESSC, since these contributions are higher than in neighboring countries. Specifically, CEOE proposed a reduction of 5 pp of ESSC in 2009 (Álvarez-Martínez and Polo 2014) but negotiations ended without agreement; and then a cut of 2 pp in 2014 (CEOE 2014), closer to the alternative proposed in previous negotiations with the Spanish government that has been more concerned with the public
deficit. In Spain, income tax and employer social security contributions combine to account for 88% of the total tax wedge, compared with 77% of the total OECD average tax wedge (OECD 2015). In budgetary terms, revenues from SSC accounted for 12.1% in terms of GDP, compared to the EU average of 10.9% and 9% for the OECD countries in 2012; but above all, the ESSC represented 59% on the SSC total for year 2011, 11 pp higher than the EU average (MINHAP 2014).

In this context, the main goal of this paper is to assess the effect of the proposed tax reform in the regional economy of Andalusia, which has one of the highest unemployment rates in Spain. To do this, we employ a Computable General Equilibrium (CGE) model, including two alternative compensating scenarios that adjust indirect and personal income taxes respectively. This analysis is in line with other studies analyzing fiscal reform in Spain, both at the regional (see Cardenete 2004; Llop and Manresa 2004) and at the national level, among which the works of Sancho and Polo (1990), Bajo-Rubio and Gómez-Plana (2004) and Álvarez-Martínez and Polo (2014) stand out.

The CGE model follows the scheme proposed in Cardenete and Sancho (2003), that is, an intersectoral CGE model with one representative firm in each sector, a single representative consumer, one public sector and one foreign or rest of the world sector. Although the model is static, it includes a savings and investment sector whose behavior follows a simple but commonly used rule in applied general equilibrium, enabling us to account for an activity (savings from the point of view of agents as consumers and other agents, and investment from the point of view of final demand) that cannot be isolated from the flows of income the model attempts to capture. The main features of the model are as follows:

- The production sphere of the economy is represented by 24 production sectors, whose objective is to maximize after-tax profits, subject to specific technological constraints. Each productive sector produces a homogeneous good using a nested constant-returns-to-scale technology. The value added of each sector \( j \) is obtained by combining the primary factors, labor and capital, whereas the total output \( X_j \) is obtained by combining the domestic output \( XD_j \) with the equivalent imports \( M_j \). Both cases we use a Leontief fixed-coefficients technology.
- The representative household maximizes the utility derived from consumption \((CD_j)\) and savings \((SD)\) by means of a Cobb–Douglas function subject to its disposable income \((DI)\). Households obtain income as result of the sale of their endowments of labor \(L_j\) and capital \(K_j\), for which they receive a salary \(w\) and a capital remuneration \(r\). Every household also receive social net transfers from the government \((T_g)\), including retirement pension, unemployment benefits and so on, and transfers from the rest of the world \((T_{row})\).

- The government acts both as a consumer and as a producer, demanding goods and services from the private sector and supplying public goods. These activities are financed by public revenues \((R)\), obtained by levying taxes on income and on transactions among other economic agents. Thus, the public revenues come from indirect \((RI)\) and direct \((RD)\) taxation, and also from the payments to the Social Security System made by employers \((ESSC)\) and employees \((HSSC)\). The difference between revenues and payments represents the deficit or surplus of the administration \((PB)\). Payments are due to the transfers to the private sector \((T_g)\) and the demand of goods and services from each sector \((DG_j)\). Under the government closure assumption, the public activity level remains constant, although government expenditure may vary due to changes in prices, and the public deficit is endogenously determined.

- The ‘foreign’ or ‘rest of the world’ sector is a simplified agent that includes two trading partners (the European Union and “All other countries”). Imports \((M_j)\), exports \((E_j)\) and transfers \((T_{row})\) are exogenously fixed but the current account balance \((FB)\) and the aggregate price index for the traded commodities \((p_{row})\) are endogenously determined.

- The investment activity is modeled following a fixed-coefficients technology, whose inputs are the sales of the productive sectors to the investment sector and whose output level is driven by the total savings in the economy. The closure rule therefore guarantees the macroeconomic equality between the total investment of the economy and savings at the aggregated level.
Labor and capital demands are computed under the assumption that firms minimize the cost of producing the value-added composite factor. In the labor market, the aggregate labor supply follows the real-wage unemployment equation (Kehoe et al., 1995) that captures the feedback effects between the real wage and the unemployment rate. This feedback represents the frictions in the labor market that cause unemployment (Oswald 1982). Therefore, in the labor market there might be a situation of excess of supply or unemployment, whereas supply and demand should be equal in all non-labor markets since the model follows the concept of Walrasian competitive equilibrium enlarged to the public and foreign sector.

The equilibrium definition describes a situation in which the producers maximize net profits, the consumers maximize their levels of utility and the activity levels of the public and foreign sectors conditions the values of the public and trade balance respectively. From the previous situation, the model provides an equilibrium solution, that is, a price vector corresponding to commodities, services and production factors, an output vector, an unemployment rate and a level of tax revenues such that prices follow the unit cost rule.

The database used in this paper is the SAMAND-10 (Campoy-Muñoz et al., 2016), built upon the MIOAND-10, recently published by IECA. It comprises 34 accounts, including 24 productive sectors, 2 inputs (labor and capital), a representative consumer, a saving/investment account, a government account, the taxes accounts according to the disaggregation required by the proposed model, and a foreign sector.

The CGE model outlined will be used to simulate the reductions of ESSC proposed by the Spanish Confederation of Enterprise Organizations, both for year 2009 (5 pp) and the most recent for year 2014 (2 pp). Three scenarios will be simulated, a scenario without compensation and other two others in which the corresponding reduction is compensated with increases in indirect taxes (IT) and personal income taxes (DT) respectively. The results obtained will allow us to assess the overall economic impact of the tax proposal on Andalusian economy.

Keywords: Computable General Equilibrium models; Social Security contributions; Tax reforms; Fiscal consolidation.

JEL codes: C68, H20, H32.


