

## Brief

*Prepared by the General Secretariat of the Council, under the direction of the President of the COR*

**Summary:** This dossier focuses on the financing arrangements of the pension system and their effects on macroeconomic variables such as activity and employment. The term “financing” strictly refers to the levies used to pay pensions in a pay-as-you-go system. Other levers also contribute to the financial equilibrium of the system, such as the modulation of the effective retirement age and the level of pensions. All three levers contribute to the financial sustainability of the pension system but with different impacts on the functioning of the economy. After analyzing the different components of the financing of the pension system in France and in Europe, the dossier attempts to shed light on a question: who, employees or employers, really bears the pension contribution? It also provides evidence of how much a simple accounting approach to a given measure, which does not take into account the macroeconomic feedbacks, does not allow a true appreciation of its scope.

### *I. The resources of the pension system*

- **What are the resources of the pension system in France and how have they evolved recently?** In 2018, 13.7% of GDP was devoted to financing the French pension system (excluding debt) (*document no 2*). Contributions based on earned income account for 80% of total resources, decreasing since 1990. The financing of the system relies on other bases than labour, in particular capital income, which represents 7% of funding today. 5% of the funding is based on the retirees themselves, notably through the payment of the CSG.
- **How does France compare to other European countries?** In 2016, social contributions accounted for 54% of social protection funding in Europe. This share varies greatly from one country to another, depending on history and institutions of each country. (*documents no 3a and 3b*).

### *II – From an accounting approach to an approach integrating the macroeconomic feedback*

- **Who ultimately pays social contributions?** Although a legal distinction is made between employee and employer contributions, this classification does not distinguish who actually pays the contributions.. This is the purpose of measuring the impact of changes in contributions. A recent study shows that, at the individual level, increases in employer contribution rates are only partially passed on employees as far as non-contributory benefits are concerned (without excluding the possibility of a collective transfer). Increases in employer pension contributions, because of their contributory nature, would be instead entirely passed on employees. It would be as if the wage earners traded, in wage negotiations, a moderation of their hourly wage for an increase in pension rights induced by the increase of the pension contributions. This mechanism is observed on a relatively high level of earnings, it could not operate on wages administered around the SMIC for which the employer's contribution was strongly reduced by the exemption mechanism (*document no 4*).
- **What are the consequences for the pay slip?** Drawing the consequences from the studies on the economic impact of social security contributions, a note from DG Trésor suggests that the pay slip could isolate all non-contributory levies on one hand, and contributory premiums on the other hand (specifying the amounts allocated to each risk). The cost of labor would be broken down into a complete wage consisting of the net wage and contributory premiums, to which would be added the non-contributory levies. Employees would thus have a better

understanding of their labour income, and the full wage (rather than the current gross wage) could be used as a basis for wage bargaining, with contributory premiums likely to be perceived as deferred income (*document no 5*).

- **What are the differences between an accounting approach and an fully integrated macroeconomic approach?** Depending on the perception of employees and employers, social contributions affect labour supply and demand behavior. This influence is not limited to the labor market, but spreads throughout the economy. Using macroeconomic models makes it possible to identify the transmission channels of contributory contributions, as well as other adjustment measures of the pension system, and to quantify their effects on macroeconomic aggregates such as GDP, Government's balance, unemployment, prices and wages, etc. (*document no 6*).
- **What is the impact of the different balancing levers on the main macroeconomic variables?** Two models were used to support the analysis for this dossier: the Mesange model (INSEE / DG Trésor) and the emod.fr model of the OFCE. It appears that in both models, the adjustment measures of the pension system have comparable effects on the GDP and the unemployment rate. In contrast, despite a similar architecture, the two models often deliver conflicting messages on the evolution of prices and nominal gross wages, because of a different modeling of the link between prices and unemployment. However, the effects of an increase in social security contributions or a decrease in pensions would have effects that do not favor economic activity. These two levers would lead to a fall in wages, hence, in consumption and GDP, which can be more or less prolonged depending on the option chosen regarding the link between inflation and unemployment. Because of the negative effects on activity, the impact on general government balance is not equal to the initial shock. For its part, the increase in legal retirement age (simulated via an increase in the labor force participation) has a positive impact on activity, at the cost of a rise in short-term unemployment and a permanent drop in wages - when the labour supply increases, the GDP increases, the counterpart being a decrease in leisure time- (*documents no 6a and 6b*).
- **Financing pensions with a robot tax, a good idea?** The rise of robotization questions the future of work. If robots become substitutes for humans, some fear the rise of mass unemployment and the scarcity of social levies stemming from labor. Hence the idea of a "taxation" of robots that would be doubly virtuous: it would curb the substitution of robots for humans by increasing the relative cost of robots compared to labour and would allow for additional funding of social protection. Beyond the legal questions and the practicalities of taxation posed by a robot tax, the arguments in favor of it remain fragile, given its induced effects, beyond a simple accounting approach. Thus, while robotization leads to the destruction of some jobs, it also create others. Moreover, the productivity gains induced by robotization are reflected in a general increase of income and therefore tax bases of all kinds. Finally, robots are a mobile factor of production: the taxation of robots in a country can contribute to the deterioration of its competitiveness (*document no 7*).