

Focus Note 5: How effective are automatic fiscal stabilisers in preserving household income?¹

Fiscal policy helps to stabilise the economy over the business cycle via automatic changes in government spending and revenues that result from current laws and entitlements - the so-called automatic stabilisers. Higher spending on unemployment benefits when unemployment increases or lower direct taxes when wages decline are examples of such automatic stabilisers. Countries with large and effective automatic fiscal stabilisers need smaller discretionary changes in public spending and revenues to stabilise the economy. By design, automatic fiscal stabilisers are temporary and do not affect the structural fiscal position. Increased reliance on automatic stabilisers would help make fiscal responses to economic cycles more timely, targeted and temporary.

This note reports estimates of the overall effectiveness of automatic fiscal stabilisers, and the importance of different fiscal instruments in automatic fiscal stabilisation, in 23 OECD economies. The focus is on the extent to which automatic changes in selected government spending and revenue components following a negative shock to wages help to stabilise aggregate household disposable income.² Current fiscal frameworks tend to stabilise household disposable income effectively in many advanced economies, primarily via direct taxes. However, there are important cross-country differences and stabilisation of household consumption may be less effective.

Assessing automatic fiscal stabilisation of household disposable income

The automatic fiscal stabilisers covered in this note are direct personal income taxes, social security contributions and unemployment, housing and family benefits. These are all directly affected when employment or wages change.³ The strength of the link between these individual components and market income changes depends on the design of the different tax and social expenditure systems, such as the degree of progressivity of income taxes and the extent of means-testing of social benefits.

The effectiveness is assessed for a specific case of a decline in private sector employment and in the wage rate, in equal proportion, that lowers market income. In this framework, automatic stabilisers are fully effective if the induced changes in direct taxes, social security contributions and the three categories of social benefits offset the impact of a negative market income shock, leaving aggregate household disposable income unchanged. The value of the indicator does not depend on the size of the shock. However, a different type of shock would affect the measured effectiveness.⁴

¹ This note is based on Maravalle and Rawdanowicz (2019).

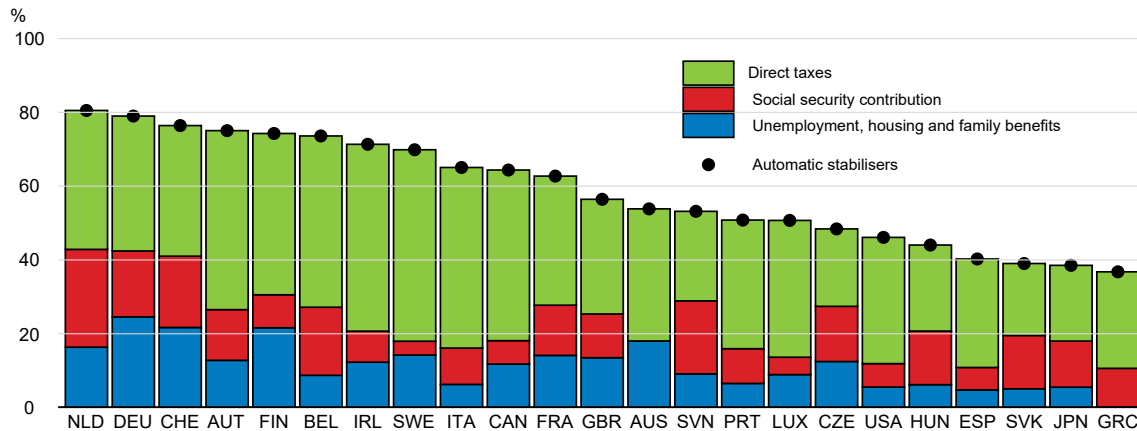
² Household disposable income covers all market income in the economy (primarily wages and self-employed income) plus social benefits minus direct taxes and social security contributions.

³ The induced changes in aggregate direct taxes, social security contributions, and family and housing benefits are based on the estimated sensitivity of changes in their levels with respect to changes in household market income (Price et al., 2015) and on the estimated sensitivity of changes in unemployment benefits with respect to changes in the number of unemployed.

⁴ For instance, for a given decline in aggregate market income, the more it stems from lower wage rates rather than from lower employment, the weaker will be the stabilisation effect of unemployment benefits.

Figure 2.9. Automatic stabilisation of shocks to household market income is generally strong

The percentage share of an income shock offset by automatic stabilisers



Note: The percentage share shows by how much the income decline is offset by automatic stabilisers one year after the shock. A share of 100% implies that automatic stabilisers offset completely the shock to income, leaving aggregate household disposable income unchanged, while a share of 0% implies no automatic stabilisation at all, with disposable income falling by as much as market income. The calculations are based on the accounting identity of aggregate household disposable income. It is a sum of wages and self-employed income, automatic stabilisers (AS), and other net income received by households. AS account for changes in social benefits (unemployment, housing and family), and - with a negative sign - direct taxes on income and social security contributions paid by households. A 0.5% fall in private employment and in the wage rate is assumed in each country compared to baseline. Changes in household direct taxes, social contributions, and family and housing benefits are derived from the elasticities of each relevant category with respect to its base as estimated in Price et al. (2015). Changes in unemployment benefits are calculated based on an estimated equation, linking unemployment benefits with the number of unemployed. Other components of social security benefits and other net income received by households are assumed to remain unchanged. Simulations are based on the 2016 structure of aggregate household disposable income and labour market outcomes.

Source: OECD Economic Outlook 106 database; OECD Social Expenditure database; and OECD calculations.

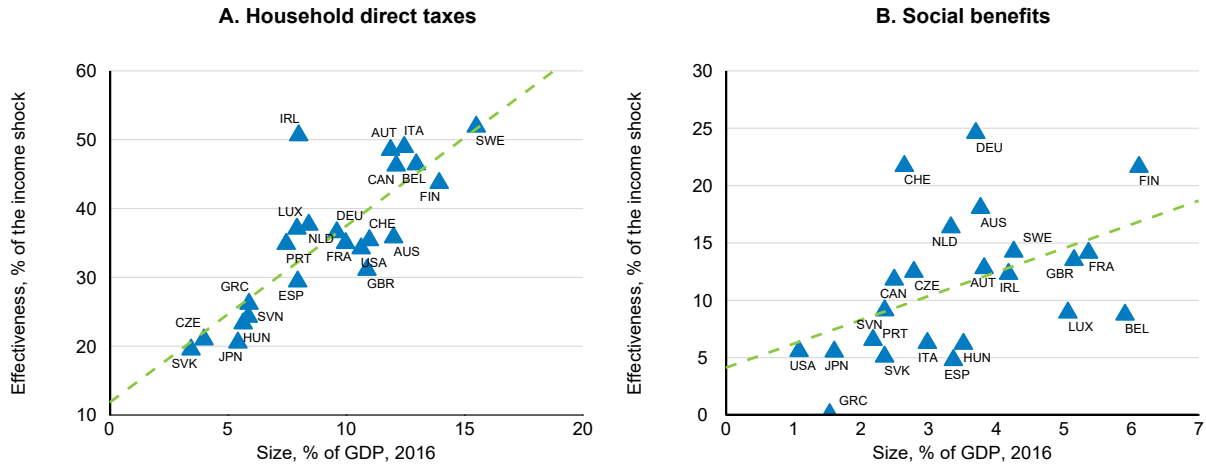
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Automatic stabilisers appear to be effective in stabilising household disposable income in all the 23 analysed OECD countries (Figure 2.9). They absorb on average just over a half of the specific shock to market income (in absolute terms), with the overall effectiveness measure ranging from close to 80% in the Netherlands, Germany and Switzerland to below 40% in Greece, Japan and the Slovak Republic.

In most of the countries covered, the stabilisation of household disposable income is mainly driven – in absolute and relative terms – by direct taxes (which decline by more than income). The absolute stabilisation effect of direct taxes is particularly large in Austria, Ireland, Italy and Sweden, whereas it is relatively low in the Czech Republic, Japan and the Slovak Republic. Rising unemployment, housing and family benefits and falling social security contributions paid by households also help to buffer the decline in disposable income, on average in roughly equal proportions. Social benefits play a particularly large role (in absolute terms) in income stabilisation in Germany and Switzerland, given the relatively large percentage increase in unemployment⁵ and the high sensitivity of benefits to income, and in Finland, due to the large share of unemployment benefits in household disposable income.

⁵ For the same reduction in employment of 0.5% in all countries, the percent change increase in unemployment is higher in Germany and Switzerland because of the low unemployment rate in these countries at the time of the shock.

Figure 2.10. The size and effectiveness of specific components of automatic stabilisers



Note: The dashed green lines show the linear regression lines.

Source: OECD Economic Outlook 106 database; OECD Social Expenditure database; and OECD calculations.

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The varying effectiveness of these specific automatic stabilisers reflects cross-country differences in the sensitivity of the different household income components to the economic cycle and differences in the structure of disposable income and initial labour market conditions. In general, the effectiveness of direct taxes and of the three types of social benefits is positively correlated with their size relative to nominal GDP (Figure 2.10).

Household income vs consumption stabilisation

Strong automatic fiscal stabilisation of household income may not necessarily imply the same level of stabilisation of household consumption and, in turn, GDP growth. Even if negative shocks to employment and wages are to a significant extent compensated by lower taxes and higher social benefits, households may increase precautionary saving. This seems to be more likely when income stabilisation is due to lower taxes rather than higher social benefits. There is extensive evidence that social transfers reduce the need for precautionary saving by diminishing idiosyncratic income risks due to unemployment (Kotlikoff, 1988). It is less clear whether progressive taxation might be equally effective, as part of the reduction in taxes at higher income levels might be saved.⁶ Moreover, the offset to market income from lower taxes may be realised with a significant delay, which is not accounted for in the simulations above, leading initially to a larger decline in household consumption. In contrast, social benefits, particularly unemployment benefits, may be paid faster to households though they may subsequently decline over time.

⁶ McKay and Reis (2016) show that unemployment benefits are more effective than progressive taxation in stabilising the business cycle (though not explicitly household income).

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