Boxes

1 The macroeconomic impact of the US tax reform

Prepared by Ursel Baumann and Allan Gloe Dizioli

Following the passing of legislation on the US tax reform towards the end of last year, this box summarises its main features and assesses the channels via which the reform may affect the US macroeconomy. It also discusses possible spillovers and implications from a European perspective.

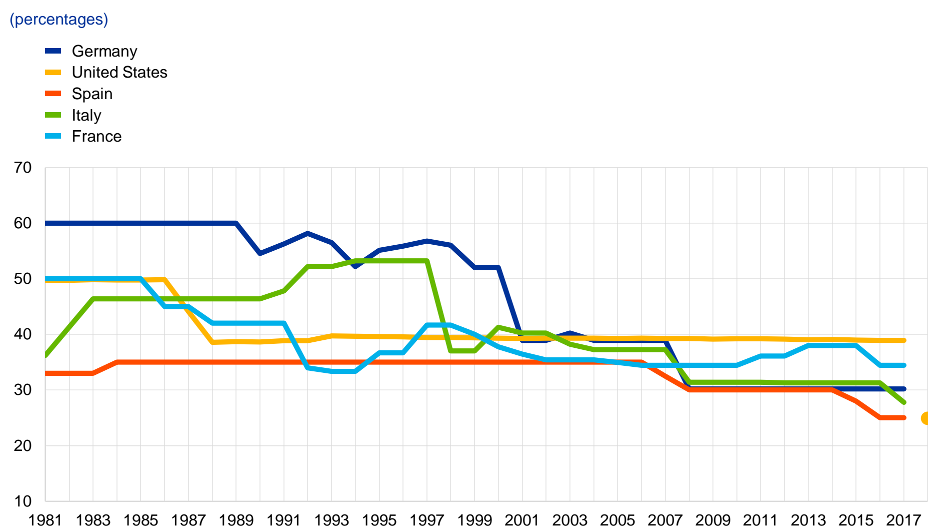
In a major legislative achievement, US President Donald Trump signed into law the Tax Cuts and Jobs Act on 22 December 2017. This tax reform, which took effect on 1 January 2018, entails a major overhaul of the US tax system. The reform involves a large number of changes, with some of its main provisions being:[4] (i) a permanent reduction in the corporate tax rate from 35% to 21%, while allowing the full deduction of investment from the corporate tax base for five years, after which this will be phased out; (ii) a temporary simplification of and reduction in individual income taxes, as well as an increase in the child tax credit; (iii) lower income taxation for small business owners; and (iv) elimination of the taxation of most foreign corporate income of US corporate shareholders, implying a move to a “hybrid” territorial system with a one-time transition tax on untaxed profits of 15.5% on liquid and 8% on non-liquid assets. The territorial system is complemented by base erosion measures and a minimum tax on some of the foreign operations of US companies.

The tax burden on US corporate income will fall significantly to a level close to that in a number of euro area economies. Chart A shows the corporate tax rate (combined for central and sub-central governments) of the United States before and after the reform as compared to the large euro area economies. Prior to the reform, the US corporate tax rate stood above the rates of all large euro area countries, while, after the reform, it is closer to the lower end of rates in those countries.

[4] The Tax Policy Center provides a detailed table overview of the main changes entailed in the tax reform compared with the 2017 status quo.

Chart A

Comparison of combined central and sub-central government corporate tax rates

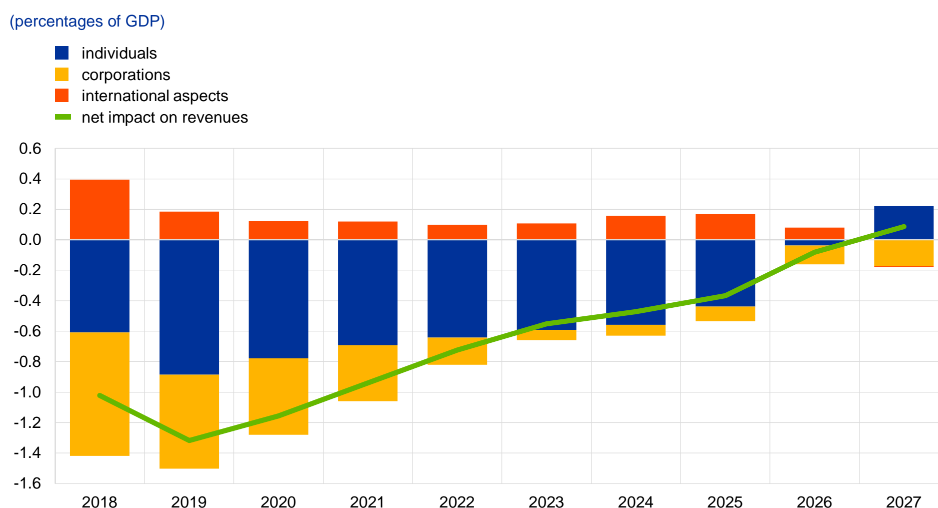


Source: Organisation for Economic Co-operation and Development and ECB staff calculations.
Notes: The combined corporate income tax rate shows the basic combined central and sub-central (statutory) corporate income tax rate given by the central government rate (less deductions for sub-national taxes) plus the sub-central rate. The dot for 2018 is the calculated rate after the reform in the United States.

Overall, the reform will provide a significant fiscal stimulus to the US economy over the next decade. The Joint Committee on Taxation estimates the static net fiscal stimulus for individuals and corporations at around USD 1.46 trillion over ten years, or 0.7% of GDP per year on average (see Chart B). The largest revenue effects occur in the period up to 2025, largely because most of the provisions affecting individuals expire after 2025. The revenue effects from the provisions affecting domestic corporations also diminish over time, partly owing to the gradual phasing out of bonus depreciation for investment. The main direct revenue generator of the reform stems from the one-off tax on foreign income of US multinationals on which tax payments had been deferred until repatriation to the United States.

Chart B

Static net fiscal revenue impact of the tax reform, 2018 to 2027



Sources: Joint Committee on Taxation, Congressional Budget Office and ECB staff calculations.
Note: Fiscal revenue estimates are converted into calendar year estimates and divided by nominal GDP as estimated by the Congressional Budget Office.

The reform is expected to boost US domestic demand and raise US real GDP in the near term. Lower individual income tax rates will raise household disposable income and boost consumption, especially among liquidity-constrained households. Part of the increase in after-tax income will also raise savings, in particular for wealthier individuals. In addition, lower corporate taxes should boost household wealth via higher asset prices and dividends, thereby also raising consumption and savings. Higher corporate profits may also lead to higher wages as workers bargain for a share of the increased profits,[5] which will in turn raise consumption. Finally, cuts in corporate taxes and the full deductibility of investment for five years will lower the after-tax cost of investment, thereby raising demand as a result of increased incentives to invest.

In addition, some positive impact on the economy's production capacity can be expected. Income tax cuts for individuals increase the after-tax rate of return on labour, which may strengthen incentives for workers to increase their participation in the labour market.[6] Moreover, by increasing the after-tax rate of return on capital, lower corporate taxes and the full deductibility of investment should increase investment and the economy's capital stock. A higher capital stock should, in turn, increase the economy's potential output and boost labour productivity. Some simplification of the tax code and the elimination of tax distortions for different corporates' financing strategies might also raise productivity by reallocating capital to more efficient sectors.

However, in a mature stage of the business cycle, fiscal multipliers tend to be smaller than when there is a large output gap. A common finding in the literature

5 See Arulampalam, W., Devereux, M.P. and Maffini, G., "The direct incidence of corporate income tax on wages", *European Economic Review*, Vol. 56, No 6, August 2012, pp. 1038-1054.

6 Labour supply would increase as long as the substitution effect is larger than the income effect.

is that fiscal multipliers (i.e. the additional growth effect generated by a change in fiscal revenues as a percentage of GDP resulting from the policy change) are lower if the economy is close to or above its potential output.[7] [8] Moreover, tax multipliers tend to be smaller than government spending multipliers, which also implies a rather limited positive demand effect from the tax reform.[9]

Available estimates suggest that the impact of the tax reform on US GDP will be positive in the short term, while the long-term effects are much more uncertain. A number of institutions have performed model simulations of the macroeconomic effect of the tax reform (see Table A). A common finding across these institutions is that the reform will lead to a moderate boost in the level of US real GDP in the range of 0.5 to 1.3% over the next three years. However, the wide-ranging estimates of the impact by 2027 suggest that the long-term effects on the US economy are highly uncertain.[10] The long-term effects depend to a large extent on how the tax reform will be financed and the impact of a higher deficit on sovereign debt costs. The lower cost of capital due to the tax reform should initially raise investment and the capital stock, thereby positively influencing the supply side of the economy. However, if the reform is assumed to be deficit-financed, the growing fiscal deficit could eventually lead to higher long-term interest rates, thereby raising the cost of capital and counterbalancing some of the positive supply-side effects. By contrast, the overall impact on the capacity of the US economy can be expected to be more positive if the tax reform is financed by reduced spending or by raising other less distortionary taxes.

Table A

Estimates of the macroeconomic impact of the tax reform on the level of GDP

(percentages)

	2018	2019	2020	2027
Tax Foundation	0.4	0.9	1.3	2.9
Tax Policy Center	0.8	0.7	0.5	0
Penn Wharton Budget Model	n/a	n/a	n/a	0.6 - 1.1
Joint Committee on Taxation[1]	0.8-0.9	0.8-0.9	0.8-0.9	0.1-0.2

Sources: Tax Foundation, Tax Policy Center, Penn Wharton Budget Model and Joint Committee on Taxation.
1) According to the Joint Committee on Taxation, the average impact on the level of GDP in the ten-year period is 0.7%. It is in the range of 0.8-0.9% for most of the ten-year budget window, falling to 0.1-0.2% by the end of the period.

From a euro area perspective, the reform could have implications in terms of macroeconomic spillovers. The more expansionary US fiscal policy will boost US

7 See Gechert, S. and Rannenberg, A., “Are Fiscal Multipliers Regime-Dependent? A Meta Regression Analysis”, *IMK Working Papers*, No 139-2014, IMK, 2014.

8 For an explanation of why this may be the case, see Reichling, F. and Whalen, C., “The Fiscal Multiplier and Economic Policy Analysis in the United States”, *Working Paper Series*, No 2015-02, Congressional Budget Office, February 2015.

9 See Coenen, G. et al., “Effects of Fiscal Stimulus in Structural Models”, *American Economic Journal: Macroeconomics*, Vol. 4, No 1, pp. 22-68, January 2012, which provides evidence that multipliers are higher for expenditure-related fiscal measures based on a number of structural models.

10 Moreover, some of the boost in demand is reversed after 2025 owing to the temporary nature of the individual income tax cuts.

domestic demand. This could raise the demand for euro area goods and services, but the overall size of the effect is likely to be rather small.

The euro area will also be affected by the changes in the international tax landscape, the consequences of which are highly uncertain and complex. First, lower US corporate taxes raise the tax attractiveness of the United States relative to other countries, which will influence corporations' incentives to invest. A study by the Centre for European Economic Research (*Zentrum für Europäische Wirtschaftsforschung* – ZEW)[11] finds that the tax reform will lead to a rise in inbound foreign direct investment (FDI) into the United States originating from the European Union which outweighs an increase in US outbound FDI into the EU. Second, the reform will affect tax planning strategies of multinational enterprises. In particular, through the US move to a territorial system and through the differences in tax rates between the United States and some high-tax EU countries after the reform, the incentives for profit shifting are changed. Some aspects of the reform also provide incentives to relocate intellectual property to the United States. More generally, the reform risks intensifying tax competition worldwide, entailing a possible erosion of tax bases in EU countries. Third, it has been pointed out that some of the international provisions of the US tax reform may not be in accordance with World Trade Organization rules and double taxation treaties.

[11] See Heinemann, F., Pfeiffer, O., Schwab, T., Spengel, C., Olbert, M. and Stutzenberger, K., *Analysis of US Corporate Tax Reform Proposals and their Effects for Europe and Germany*, Centre for European Economic Research, Mannheim, 11 December 2017.