Box C. The macroeconomics of fiscal give-aways

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In this box, we evaluate the macroeconomic effects of expansionary fiscal policy measures on the UK economy. We consider two fiscal packages, one based on Labour Party policy and one based on some of the policies put forward during the Conservative Party leadership campaign. We show that while these policies would have little effect on the level of economic output, they might nevertheless change the composition of output and the distribution of income in the directions desired by those that proposed them.

After more than ten years of fiscal restraint, a loosening of the public purse now appears almost inevitable. There are clear pressures for higher spending. Based on our own assessment of government expenditure needs (Hantzsche and Young, 2018), we have been arguing for some time that spending will have to rise to accommodate demographic pressures and maintain the quality of public services. Recent proposals confirm our judgement. And with borrowing costs low, the argument that there is space for spending more/taxing less has also been strengthened recently (Blanchard, 2019).

Using simulations on NIESR's global econometric model NiGEM, we find that expansionary fiscal measures akin to those proposed at both ends of the political spectrum would add to public borrowing. However, the impact on economic growth is estimated to be small, in line with conventional wisdom that fiscal expansions are crowded out by monetary policy and exchange rate adjustments in open economies, especially when output is at or close to potential.

Scenario A: Labour Party proposals: Higher public sector pay, higher spending, higher taxes

This scenario is based on the Labour Party document, *Funding Britain's Future* (Labour Party, 2018) which sets out additional current spending measures (worth £48.6 billion in 2021–22) and a matching set of tax raising measures. Labour also intends to boost public investment by £250 billion over ten years through a National Transformation Fund (*ibid.*) which it would finance by additional borrowing. The modelling assumptions made to implement this scenario are set out in table C1. In particular, we model an increase in public sector wages such that the currently persisting gap of around 3.5 per cent between prevailing public sector wage levels and their long-run trend is eliminated within four years. This is reflected in whole-economy wages being 0.6 per cent higher than they would otherwise have been and a public sector paybill that is £7 billion per year higher by 2023–4. We further account for additional real government consumption of £44.6 billion per year by 2021–2 which Labour would mainly target at education, health and social care, and work and pensions (*ibid.*). We also include additional annual capital expenditure of £25 billion per year. The party plans to finance these spending promises through higher income and corporate taxes and a range of levies and anti-avoidance measures. We have increased effective income tax rates in NiGEM, which apply to the single representative household considered by the model, so as to raise £6 billion in additional tax revenue by 2021–2. Given that the aim is to target predominantly high-income households, whose consumption behaviour tends to be less elastic, we also apply a positive shock to consumption that dampens half the impact of higher taxes. We have also imposed an increase in effective corporate tax rates such that an additional £19 billion is raised by 2021–2 (*ibid.*). We do not account for the effects of the levies and anti-avoidance measures suggested by the Labour Party and as such this scenario is not the same as put forward by Labour.

Scenario B: Conservative Party proposals: Lower taxes

The Conservative leadership campaign focussed predominantly on lowering taxes. We build a scenario to assess the combined impact of lower income taxes, lower national insurance contributions, and lower corporate taxes (table C1). More specifically, we consider a change in tax policy that would raise the higher income tax threshold from currently £50,000 to £80,000. According to the Institute for Fiscal Studies (Johnson and Waters, 2019), this would lead to a direct revenue shortfall of £9 billion per annum,

Table C1. Fiscal policy assumptions

Scenario A		Scenario B	
Income tax rise	Effective income tax increase to directly raise £6bn pa by 2021–22	*Income tax cut and lower NI contributions*	Effective income tax decrease to yield £26bn pa less in direct revenue by 2021–22
Corporate tax rise	Effective corporate tax increase to directly raise £19bn pa by 2021–22	*Corporate tax cut*	Effective corporate tax decrease to yield £13bn pa less in direct revenue by 2021–22
Capital expenditure	Public investment higher by £25bn pa		
Discretionary spending	Government consumption higher by £45bn pa		
Public sector pay rise	3.5% over 4 years, reflected in whole economy wages and government expenditure deflator		

Box C. (continued)

holding all else equal – an estimate we use to calibrate effective income tax rate changes. We further consider an increase in the threshold for National Insurance contributions from £8,632 currently to £12,500 assuming it applies to employers, employees and self-employed. The IFS (*ibid.*) estimate that such a policy would cost £17 billion per annum and we implement a corresponding effective tax rate reduction in NiGEM. Both measures benefit predominantly high earners. As above, we dampen the impact on consumption by one half to account for lower tax elasticities of private spending. Finally, we model a reduction in the corporation tax rate from 17 per cent to 12.5 per cent at an estimated fiscal cost of £13 billion (Johnson *et al.*, 2019).

Macroeconomic effects

We assess the combined macroeconomic effect of the policy measures under each scenario using NiGEM, which allows us to account for feedback effects between fiscal policy, monetary policy and the wider economy. The effects are calculated relative to a baseline scenario where government spending and taxation plans are taken from the Office for Budget Responsibility's March 2019 projections.

Figure C1a shows that fiscal policy measures under scenarios A and B have a similar effect on public finances, raising the public sector deficit by more than 1½ percentage points of GDP relative to the OBR's last projections between 2020–21 and 2024–5. As a result, debt levels stabilise at around 80 per cent of GDP rather than entering a downward trajectory as planned by the May government (figure C1b).

In scenario A, additional borrowing is mainly the result of increased government consumption and investment expenditure, adding 2½ percentage points of GDP to the deficit. The modelled tax increases are not enough to cover these costs in our analysis, contributing only 1 percentage point of GDP to lowering the deficit. This is partly because a rise in income and corporate tax dampens consumption and investment, leading overall to a lower total tax intake than direct tax effects would suggest (figure C2). Any additional revenue raised from levies and anti-avoidance measures would potentially reduce the deficit impact somewhat if these measures were to be as effective as suggested by Labour.

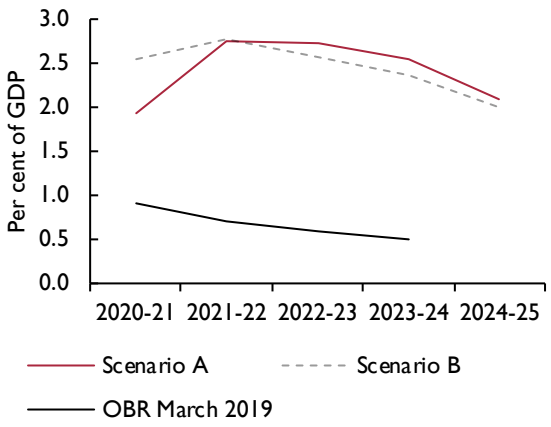
Spending measures considered under scenario A initially instil some volatility in the economy. This is to a large extent driven by government consumption expenditures which boost aggregate demand between 2020–21 and 2022–3, but the effect on economic growth then reverses as the economy adjusts. Higher demand adds to inflationary pressures, requiring the Bank of England, which we assume adopts a standard policy rule, to respond by raising Bank Rate by around 30 basis points relative to the baseline. As a result of the fiscal boost and monetary policy response, the exchange rate appreciates by around 2 per cent. This, in turn, weakens external competitiveness, the current account balance deteriorates and any initial boost to economic growth is neutralised.

In the long run, higher capital expenditure as a result of proposed investment measures in scenario A bolsters the productive capacity of the economy, adding 0.5 per cent to annual economic output by 2029–30. Net of higher taxes, which dampen activity, measures under scenario A add around 0.4 per cent to long-run economic output.

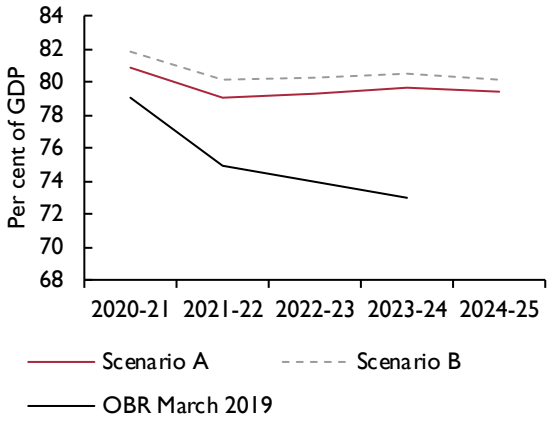
In scenario B, two thirds of the overall deficit effect is driven by lower income tax and NI contributions and one third the result of lowering corporate taxes. Figure C2 shows that the induced impact on total tax revenue, arising from higher consumption and

Figure C1. Fiscal impact

a) *Public sector net borrowing*



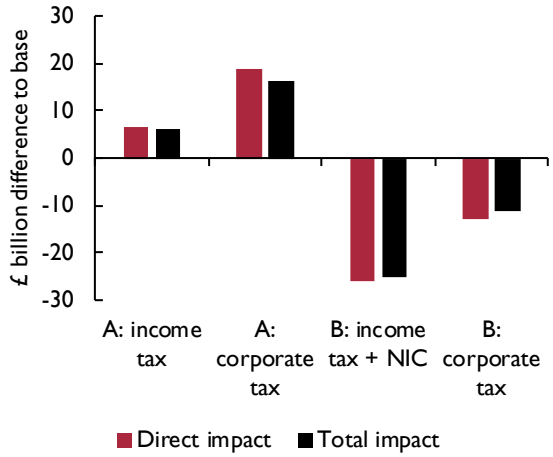
b) *Public sector net debt*



Source: NIESR and NiGEM simulation, OBR (2019)

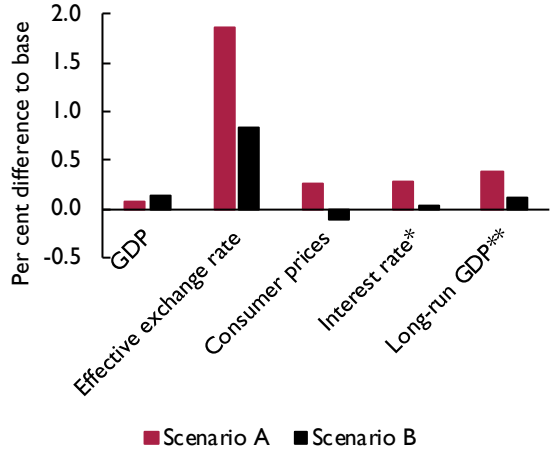
Box C. (continued)

Figure C2. Direct and induced tax revenue effects



Source: NIESR and NiGEM simulation.
Note: Fiscal year 2021–2. Total impact includes revenue from all taxes and accounts for tax effects induced by endogenous responses of consumption and investment.

Figure C3. Macroeconomic impact



Source: NIESR and NiGEM simulation.
Notes: Average 2021–2 to 2024–5. *Percentage point difference from base. **2029–30.

higher corporate profits, is estimated to be £2.6 billion (adding up differences between the red and black bars), far from covering the direct revenue shortfall of £39 billion.

The impact on economic output of tax cuts considered under scenario B is small, adding on average less than 0.1 per cent per year to GDP by lowering costs of production and encouraging spending.

Overall, our analysis suggests that expansionary fiscal policy measures proposed at both ends of the political spectrum would require borrowing to go up. Any spending promises in addition to suggested tax cuts, for instance on defence and education, would lead to additional increases in the deficit. Pressures to maintain the quality of public services and accommodate an ageing population would further add to spending needs. The increase in borrowing in both scenarios risks making the economy vulnerable in the event of other shocks, like a no-deal Brexit, and mean that the costs of servicing the public debt will rise. In other words, while borrowing costs may be lower than in the past, some of the costs associated with fiscal give-aways are transferred to future generations.

Another key lesson from the present exercise is that fiscal policy in an open economy of moderate size operating a flexible exchange rate is not very effective in boosting output. Higher spending or lower taxes tend to lead to capital inflows, a higher exchange rate and a loss of competitiveness replacing private sector activity with public spending. Instead, monetary policy is a more effective instrument in the short run if the economy happens to operate below potential, at least as long as interest rates are well above the effective lower bound as they are in this exercise. Higher public investment partly financed by higher taxes and broad-based tax cuts of the magnitude described here would make a small contribution to long-run growth potential.

As a caveat, higher investment and lower tax rates may also have a positive impact on productivity or boost investor confidence which the present analysis does not consider, given that effects are largely unclear and depend, for instance, on the type of investment projects. We have also not considered any distributional effects which across both scenarios may differ widely.

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