MAINTAINING STABLE MACROECONOMIC CONDITIONS

Russell Jones* and John Llewellyn*

Executive Summary

The UK economy faces more than usually uncertain times. Outside the European Union, and in an increasingly challenging global environment characterised by ageing populations, climate change, populism, protectionism, and more, the country needs to chart a new course. This may well require policymakers to consider unconventional approaches to monetary and fiscal policy and, at the very least argues for important modifications of the current policy regime, including the autonomous mandate of the Bank of England.

At some point, there will be a major slowdown in economic activity. Yet the Bank of England has very little leeway to respond by cutting interest rates, and it has already adopted an armoury of unorthodox tools that may be decreasing in effectiveness. More radical monetary approaches would be likely to be politically controversial; and are not without risks. In these circumstances it would be a mistake to rely solely, or even largely, on monetary policy to maintain demand. It would be better to conduct monetary and fiscal policy in tandem, and for discretionary fiscal policy to be required to play a much more active role in demand management than hitherto. This would, for example, imply major extension of the automatic stabilisers and efforts better to calibrate discretionary initiatives with the business cycle.

But given the long-term pressures on the public finances, more fundamental changes in the structure of spending and taxation are needed, along with a redrawing of fiscal rules and targets, under independent budgetary oversight. The current, historically low, share in GDP of public spending is itself unsustainable in light of the demand for services of an ageing population; plans should be made to raise it closer to the European average. In the most extreme circumstances it might become necessary to waive the fiscal rules entirely and for the Bank of England directly to underwrite fiscal stimulus in order to sustain aggregate demand. It would be wise for the authorities to consider the options in detail now, while the environment is still relatively stable.

Introduction

Macroeconomic policy has three basic goals:

- *Maintaining stable macroeconomic and financial conditions* – keeping output and employment near their maximum potential levels, subject to maintaining reasonable price stability[1] and avoiding growing imbalances, particularly the excessive build-up of risk, or private or public debt;
- *Supporting dynamic economic adjustment* – the constructive evolution of the economy's structure in response to changing patterns of demand; and
- *Facilitating strong sustained growth* – encouraging a growing volume of resources for continual improvement in living standards, including public services.

*Llewellyn Consulting. E-mails: russell.jones@llewellyn-consulting.com, john.llewellyn@llewelyn-consulting.com.This paper has benefited from significant and substantive comments from Martin Wolf (*Financial Times*) and Rhys Bidder (Federal Reserve Bank of San Francisco). The views, judgements and policy proposals expressed in this chapter are those of the authors, but not necessarily those of the critical commentators, Gatehouse Advisory Partners, Llewellyn Consulting, the Federal Reserve Bank of San Francisco or the National Institute of Economic and Social Research.

https://doi.org/10.1177/002795011925000111 Published online by Cambridge University Press

UK governments, against a background of 150 years of relative economic decline and intermittent crises, have often acted as if there exists some single, over-arching, policy panacea for achieving its economic goals. However, views have changed over time about what such a panacea might be, with policymakers often unwarrantedly influenced by the latest academic fad; the temporary supremacy of a particular political philosophy; or the success of a policy regime employed by a competitor country, even if the latter exhibited a quite different social, cultural, political, and institutional history.

Over time, UK administrations have variously become fixated on the Gold Standard; the Bretton Woods fixed but adjustable exchange rate system; fiscal fine-tuning; price and income policies; monetary targeting; the exchange rate mechanism of the European Monetary System; and, most recently, formal inflation-targeting by an independent central bank. It could also be argued that Brexit itself falls into the category of this unrelenting search for an economic cure-all.

Unfortunately, even if they have appeared to enjoy some initial success, none of these regimes has proved sufficiently robust to endure. Unsustainable imbalances continued to accumulate; intermittent crises remained a feature of the economic landscape; the displacement of declining industries and sectors by dynamic new ones remained characterised by inertia and dislocation; and Britain's long-term relative decline continued.

Since the global financial crisis, the UK's productivity performance has been especially lacklustre. Indeed, labour productivity is today some 20 per cent below where it would be had it continued along its pre-2008 trend. This is double the previous worst productivity shortfall ten years after the start of a downturn, and is unprecedented in the past 250 years (Crafts and Mills, 2019).

The reality is that there is no single, magic, policy bullet, not least because goals overlap and interact, and their importance changes according to what issues are most pressing at the time.

This paper focuses on the first of the three main aims of macroeconomic and financial policy – maintaining output and employment near their maximum potential levels – and the role that monetary and fiscal policy play in this. Policies to ensure that economic adjustment is as dynamic and constructive as possible, are considered in the following paper. Policies to achieve sustained growth have many dimensions, and are presented in subsequent papers.

Challenging times

The contemporary risks to stability are considerable, such that macroeconomic and financial policy is likely to be confronted by a particularly challenging set of circumstances: and this at a time when the over-riding perception is that there is a shortage of conventional ammunition.

The global threats could well extend to widespread financial instability, the fragmentation or indeed comprehensive breakdown of the global trading system, a new cold war, war in the Middle East, and even a new world war.

Domestically, beyond Brexit, which has the potential to act as a disruptive force far into the future, dangers include a house price crash (which could trigger a deep recession), the break-up of the union, and political and constitutional chaos.

Monetary policy

It is possible that the Bank of England (BOE) may, as it did prior to the early 1990s, once again have to lean heavily against inflation, should it threaten to become resurgent. But at present, notwithstanding the risk that a further sharp Brexit-induced decline in sterling temporarily pushes import prices up significantly, that looks unlikely. Globally, inflation, and inflation expectations, remain remarkably quiescent.

While there is nothing sacrosanct or necessarily optimal about the 2 per cent inflation rate that the BOE currently targets, it would seem sensible, both for consistency and the management of expectations, for the target to be retained for now as a 'principal guiding light' for monetary policy.

Policy proposal

- *Maintain the operational independence of the Bank of England in respect of inflation control and the current 2 per cent target.*

Monetary policy responses for the future

That said, the Bank's degree of autonomy, and its prescribed mandate, may in due course have to evolve. After all, following the 2008 crisis, with many governments unable or unwilling to respond adequately, central banks found their responsibilities extending to saving the financial system and, in the case of the European Central Bank (ECB), to preserving the single currency. Such could happen again.

https://doi.org/10.1177/002795011925000111 Published online by Cambridge University Press

At some point, policy will be confronted by a major slowdown in economic activity: the present world recovery is already long in the tooth and, as highlighted above, the risks to it are various. Equally, it could be that demographic and other structural factors, such as sluggish productivity, perpetuate the post-2008 crisis environment of soft growth, near-zero inflation, and low interest rates.

There is currently a mere ¾ ppt of orthodox interest rate policy leeway. Small changes in policy rates can have only the most limited of effects, almost certainly insufficient to address anything but the most modest of decelerations. Hence, if the responsibility for supporting aggregate demand and prices is once again laid predominantly at the door of monetary policy, at the very least the unorthodoxies of recent years will once again have to be employed, if not reinforced. Indeed, they may become the new orthodoxy.

These extend to:

- Large-scale asset purchase programmes (LSAPs);
- Forward policy guidance; and
- Targeted commercial bank lending schemes underwritten by the BOE.

Yet these might not suffice. The unconventional initiatives to date seem to have become less effective over time. Future downturns or periods of unacceptably low growth or inflation may necessitate still greater unorthodoxies. These could include:

- Extension of LSAPs to a wide variety of private sector, and even perhaps foreign, assets; and
- New targets to depress real interest rates, such as a temporary commitment to overshooting the existing inflation target, or a price level objective.

Employment of additional unconventional weaponry would not be complication-free, however. Even 'pure' interest rate policy has real and financial side-effects, not least on resource allocation, asset prices, risk tolerance, and the distribution of income and wealth. Such effects would likely become more substantial still, were monetary policy to break new ground – and particularly should the recent US-led trend towards protectionism and bilateralism intensify.

Such complications could multiply yet further if, in order to push real interest rates down to a level commensurate with recovery, it thereby became necessary to eradicate the zero-interest rate bound.

Three routes could be pursued;[2] but they are radical and likely, at least at this juncture, to be unacceptable to many:

Abolish currency and embrace e-money. This could be achieved by giving every legal UK resident an account with the BOE, made operational through a cheque account held at private credit institutions guaranteed by the central bank. The BOE would set the interest rate on them at whatever positive or negative level it deemed appropriate.[3]

Tax or subsidise currency. The anonymity and bearer nature of currency complicates this process. A way around such problems could be to stamp currency to demonstrate that any tax or subsidy has been paid. A time-date strip could be embedded into notes to record when the currency enters, and is withdrawn, from circulation, or currency could be taxed through a random demonetisation of a proportion of the outstanding stock. However, there would probably be an associated requirement for random inspections of cash holdings and penalties for failing to play by the rules.

A negative interest rate. Alternatively, a negative interest rate (say –10 per cent per year) could be imposed on bank deposits with the BOE, while the interest rate on currency would remain zero. The BOE would effectively be setting the one-year forward exchange rate of deposit currency and cash currency 10 per cent below the spot exchange rate, resulting in a 10 per cent appreciation of deposit currency over that period. After a year of the –10 per cent deposit rate, an individual would hold 90 per cent of every currency unit kept on deposit, or one full currency unit held in cash. This currency unit would be worth 90 per cent of a deposit unit.

To work, the deposit currency would need to be the numeraire for wage and price contracts. Only the deposit currency would be legal tender; all government contracts would have to be invoiced and denominated in, and paid with, deposit currency, as would taxes and benefits: private deposits would have to be denominated in deposit currency only.[4]

Major issues would arise from such departures. These include the forfeiture of government seigniorage revenues (the profit made by a government by issuing currency),[5] although this could be overcome by taxing commercial bank reserves and other deposits held at the central

https://doi.org/10.1177/002795011925000111 Published online by Cambridge University Press

bank; the loss of currency anonymity, which could be construed as emblematic of an increasingly intrusive and predatory state; pressure on already stressed defined-benefit pension schemes and financial institutions that guarantee nominal returns on their liabilities, such that regulatory change would be required; and a need to enhance macroprudential policy tools to moderate the inflation of asset bubbles, excessive risk taking, and generally preserve financial stability.

On the other hand, restrictions on the use of cash would help to address tax avoidance, money laundering, and terrorist financing, while also restricting the black economy and crime.

Policy proposals

- *Study and evaluate the implications and feasibility of policies that would be necessary should it become necessary to address a major downturn, or an extended period of weak growth and low inflation.*
- *Prepare policy thinking for what would be implied should the zero bound to nominal interest rates have to be overcome.*

The policies outlined are the sort that would logically be implied were policymakers to decide that, in order to support aggregate demand in the event of a major downturn, most of the 'heavy lifting' was to be undertaken by monetary policy.

In our judgement, relying solely, or even largely, on monetary policy would be a mistake. More appropriate would be to recognise that monetary policy and fiscal policy settings perforce have to be determined in tandem.

Fiscal policy

With the scope for monetary orthodoxy so limited, and the potential complexities and side-effects of more unconventional initiatives likely significant and unacceptable to many, it would make sense for fiscal policy to play a much more active role in demand management than hitherto. Indeed there could well be little option.

Automatic stabilisers

The most timely, predictable, and effective fiscal response to moderate shocks is generally delivered by 'automatic stabilisers' – the variations in taxes, subsidies, and transfers that occur automatically in response to changes in output and employment.

To stabilise aggregate demand satisfactorily, the automatic stabilisers need to be substantial, and function well. If allowed to operate symmetrically over the cycle, they should prove broadly fiscally neutral.

The amount of support that automatic fiscal stabilisation offers depends upon the makeup of the country's tax and benefit systems; its income level; its openness to trade; the size of its government sector; and the nature of the shock with which it is confronted – in particular, how much unemployment that shock generates.

The UK's automatic stabilisers are estimated to have offset roughly 40 per cent of the effects of the global financial crisis. This is much more than was the case in the UK's two previous downturns, significantly more than was the case in the US, but somewhat less than in some other EU economies (Dolls *et al.*, 2009).

Today's automatic stabilisers have grown out of social programmes, rather than being designed explicitly as a tool to stabilise aggregate demand. They could usefully be improved in terms of both timeliness and effect by re-orientating them to some degree.

Policy proposal

- *Widen and re-orient the automatic stabilisers towards cyclical variation of investment tax deductions, property taxes, VAT, transfers to local governments, and the substitution of estimated current-year-based income tax collection for previous-year-based income tax collection. This would require the establishment of free-specified 'triggers' for when these initiatives kick in.*

Discretionary stabilisers

Useful and effective though they are, there is a limit to the efficacy of the automatic stabilisers. If a shock is particularly large, or sector-specific, or risks leading to a protracted shortfall in aggregate demand, the automatic stabilisers are likely to prove inadequate. Discretionary fiscal policy may then have to play a greater role.

The use of discretionary fiscal policy following the 2008 financial and economic crisis was historically impressive, and it almost certainly prevented the aftermath from being anything like as bad as it would have been otherwise. However, discretionary fiscal initiatives invariably face two challenges: first, they risk unsettling investors if deemed inappropriate or excessive; second, they are difficult to calibrate with precision to the business cycle. Large tax reductions and expenditure increases involve

https://doi.org/10.1177/002795011925000111 Published online by Cambridge University Press

significant information, decision, and implementation lags. Moreover, they are also potentially open to malign political influence.

The first of these anxieties is most likely to be allayed by joining in an internationally-coordinated relaxation of fiscal policy. They could also be dispelled somewhat by emphasising more the asset side of the public sector balance sheet. In past periods of fiscal contraction, short-termism has dominated. Public investment projects have tended to be slashed, and assets sold off, thereby harming the prospects of future generations (who of course cannot vote). To the extent that future borrowing is directed to the financing of investment, public sector net worth and inter-generational fairness will be promoted.

Public infrastructure investment spending, and the public sector capital stock, underpin growth potential. Infrastructure rich in path-breaking technology tends to be especially potent over the longer term. There is also going to have to be greater emphasis on projects that address climate change issues in the years ahead. (This subject is further addressed in the paper on *Improving infrastructure*).

Policy proposal

- *Over the course of the business cycle, keep the share of net public investment in GDP at a level consistent with the maintenance of, if not an increase in, the economy's growth potential and therefore in the future tax take.*

The OECD has suggested that the advanced economies invest a sum equivalent to some 3.5 per cent a year in infrastructure (public plus private) to avoid detrimental implications for living standards, quality of life, and competitiveness. The UK currently falls more than a percentage point short of this target.

The second issue, the difficulty of timing, could be addressed to some degree by government always having available a pre-vetted, 'shovel-ready' buffer-stock of investment projects that could be activated at short notice, and which is part of the government's publicly-stated infrastructure plans. These need not be grandiose. For example, the multiplier effects of investment spending that addresses even relatively small transport bottlenecks can, when taking into account also its supply-side effects, run into double digits.

The feasibility of doing this could be enhanced by having a national investment bank that could undertake well in advance all the investigative, legal and other preparation for investment projects that could thereby be undertaken at short notice.

Policy proposal

- *Establish an operationally independent, state-capitalised, National Infrastructure Bank (NIB) to supersede the existing essentially advisory National Infrastructure Commission (NIC) procedures.*

(This policy is considered in greater detail in the paper on *Improving infrastructure*.)

Again, as with the enhanced automatic stabilisers, discretionary stimulus would, ideally, be undertaken only on the basis of predetermined 'cyclical triggers'.

Policy proposal

- *Government to specify the conditions under which discretionary fiscal expansion would be implemented; and the OBR to determine when these conditions have been met.*

Universal basic income

There have been suggestions that the automatic stabilisers as currently configured should be superseded by universal basic income (UBI), or wholesale job guarantee schemes, that could also act significantly to diminish inequality and poverty, and reduce job insecurity at a time of rapid technological change.

However, such untargeted, blanket initiatives are extortionately expensive. Initial estimates have suggested that they could result in increases in the proportion of national income taken up by taxation of anything up to 20 per cent.

Either the UBI would have to be unrealistically low, or the tax rate to finance it unacceptably high.

(This subject is addressed in further detail in the paper on *Reducing inequalities*.)

Fiscal sustainability

All these issues of how to stabilise macroeconomic and financial conditions arise at a time when the longer-term pressures on the public finances are immense. Following the global financial crisis, the UK's net government debt ratio has swelled to a level (some 76 per cent of GDP) last seen in the late 1960s. At the same time, demographic

https://doi.org/10.1177/002795011925000111 Published online by Cambridge University Press

change will have important implications not just for spending on health, pensions, and social care, but *inter alia* for skills, housing, transport, and policing. And, as emphasised above, climate change also stands to exert a massive, and expensive, impact on government policy over the decades ahead.

The UK tax system was designed for a younger and largely economically-active population. The old do not just consume more public services than do the young; they also pay rather less tax. Public spending per head for the average 80-year old is around four times that for the average 40-year old. For tax, it is a similar story – only in reverse (Johnson, 2018). Moreover, the tax system under-taxes capital income and capital gains relative to earnings; the system of pension taxation is likely only to deepen generational inequality; and the system of local taxation – the council tax – bears disproportionately heavily on lower-value properties.

Thus, the potentially greater need for fiscal initiatives in macro stabilisation policy will come at a time when not only has the UK's indebtedness risen sharply, and the potential burdens on the public purse increased, but there is also a growing need for important changes in the structure of spending and taxation. This raises the fundamental issue of the sustainability of the country's fiscal situation.

Fiscal rules

The best way to minimise the risk of loss of confidence in a country's fiscal situation is to commit, credibly, to a tried and tested fiscal rule. To be effective, this has to be flexible enough to cope with genuine emergencies, yet firm enough to minimise any deficit bias – the tendency of public sector debt to rise over time because governments habitually tend to want to spend more and tax less.

Fiscal rules should not be unduly complex, rigid, or difficult to enforce. They also benefit when they receive cross-party support and public acceptance. The UK has adopted many such guidelines in past years in an effort to ensure that the public finances do not approach a point of unsustainability. But none has endured. Different governments have had different public-finance priorities, or events have rendered them inappropriate or unattainable.

However, the credibility of fiscal policy can be enhanced by oversight by an independent fiscal authority mandated to encourage transparency, stability, responsibility, fairness, and efficiency, and this role is currently performed well by the Office of Budget Responsibility (OBR).

Policy proposal

- *Maintain the Office for Budget Responsibility, which should continue to provide its regular, detailed, assessments of fiscal policy, including reporting regularly on the progress made towards prescribed goals, and highlighting the risks and shortcomings of government fiscal initiatives.*

To some extent, judgements, particularly by international capital markets, on the sustainability of public debt are made in relation to the situation in other economies. The basic principles of UK fiscal policy should usefully, in our judgement, include a longer-term target for the broadly defined budget balance that is not out of line with its competitors, and which takes into account the burden of debt at the beginning of the period, especially if high in a relative or historical sense.

Targeting the headline balance over a period broadly equivalent to the typical business cycle would avoid having to resort to the imprecise, and easily politically anipulated, art of cyclical adjustment.

Policy proposal

- *Set a five-year rolling target for the public sector balance, as a percentage of GDP, with a particular focus on balancing the budget on the current account.*

It would also make sense for the government to commit to preventing the state from becoming responsible for such a proportion of national income that incentives and economic dynamism are harmed.

That said, after an extended period of fiscal austerity focussed on public sector pay restraint and severe cuts in non-prioritised spending areas, such as defence, housing, and public order, the share of public spending in UK GDP is historically low, at around 38 per cent. The quality of public services in general has declined, and there is little evidence of improved public sector efficiency. The demand for public services is likely to rise increasingly sharply to meet the needs of an ageing population. Further, the two broad expenditure items that increase most as real incomes increase are health and education; and most advanced societies other than the US wish these to be provided largely as merit goods through taxation or compulsory insurance.

Maintaining the share of public spending in GDP around historically low current levels would seem neither sensible nor practicable at a time when the population is

https://doi.org/10.1177/002795011925000111 Published online by Cambridge University Press

aging, and the public are strongly in favour of transfer payments such as pensions.

Policy proposals

- *Plan on a ceiling for the share of government spending in GDP that is closer to the European average of around 47 per cent of GDP.*
- *It would also be wise to retain the leeway in specific circumstances of acute deflation and embedded zero or negative interest rates, when fiscal constraints are lifted, for the fiscal rules to be suspended or modified in such a way as to afford the authorities maximum flexibility to support aggregate demand.*
- *The OBR should determine, in concert with the government and the Bank of England, when interest rate conditions are such that the fiscal rules can temporarily be waved.*

Direct monetary financing

Monetary policy and fiscal policy are often considered, discussed, and analysed as if they were conceptually and practically not only different, but also separate, instruments of policy.

Considering and operating them separately, however, can result in limiting their joint efficacy and effectiveness, particularly in the case of major shocks. It could be – and not necessarily in a particularly far-distant future – that there will be a significant economic downturn, or deflationary episode, such that monetary and fiscal policy will explicitly have to be employed together.

In the most exigent circumstances, it could become appropriate for the BOE directly to underwrite fiscal stimulus to sustain aggregate demand – the so-called 'helicopter money' option. This could take the form of: central-bank-funded public investment spending; or cash transfers to households and/or companies.

Alternatively, the government could undertake a debt swap with the BOE, exchanging a portion (or all) of the Bank's bond holdings for a zero-coupon irredeemable security. This effective cancellation of government debt would achieve two things: it would significantly ease the government's budget constraint (the Bank currently holds gilts in amounts equivalent to some 20 per cent of GDP), while rendering the increase in the monetary base generated by the Bank's bond purchases permanent which, in theory at least, would add to their anti-deflationary heft.

These options would generate significant concerns. They would raise the spectre of loss of budgetary discipline, central bank insolvency, currency collapse, runaway inflation, perhaps even general economic breakdown.

The risks with such monetary finance may well have been exaggerated, however. For example, a central bank's balance sheet is a very different animal from that of a commercial bank (Jones, 2015). But nevertheless, given the moral hazard involved, and the need not to frighten markets unduly, any such departure would have to be rigorously ring-fenced and, in the case of central-bank-financed spending and cash transfers, time-limited. It might be wise therefore to create a special emergency fund for this purpose. This would be particularly the case should Britain be the first advanced economy to go down this road.

It is never advisable to have to devise policy responses in a hurry; and the more so if they are perceived, or likely to be perceived, as radical. But neither should policymakers sit mute, waiting until a crisis – such as a marked weakening of aggregate demand – before considering their broad options.

It therefore would, in our judgement, behove the authorities to consider, while the environment is currently comparatively stable, what actions they would wish to see taken both on the fiscal and the monetary fronts in the event of a major downturn in demand and output. It would make sense for there to be a pre-specified set of circumstances under which such joint fiscal/monetary action should be taken. In turn it would then be for the Bank and/or the OBR, rather than the government alone, to take the ultimate decision about monetary finance's deployment, albeit after suitable consultation. Any investment component could be also structured in such a way that the completed projects could ultimately be sold off to the private sector.

Policy proposal

- *Prepare the institutional framework for the direct central bank financing of fiscal stimulus, including the creation of a designated fund for this purpose.*

Exchange rate policy

The UK's floating exchange rate regime is one of the few areas where it is hard to see clear room for improvement.

With the exception of two relatively brief but unhappy periods of participation in efforts to stabilise European

https://doi.org/10.1177/002795011925000111 Published online by Cambridge University Press

exchange rates – the 'Snake' from April to June 1972, and the Exchange Rate Mechanism (ERM) of the European Monetary System from October 1990 to September 1992, and a period of informal shadowing of the deutschemark in 1987 and 1988 – sterling has essentially been allowed to float freely against other currencies since the final break-up of the Bretton Woods monetary system in 1973.

Especially since inflation expectations have been reasonably well-anchored around the BOE's inflation target, this flexible exchange rate regime has proved effective in enabling the economy to adjust to shocks, and there would appear to be little to be gained from losing that element of automatic flexibility.

Policy proposal

- *Avoid any temptation to use exchange rate intervention for any purpose other than to smooth adjustments; and avoid larger-scale interventions such as exchange control except in extreme situations.*

NOTES

1 The term 'price stability' is generally interpreted somewhat loosely. It is seldom taken to mean zero inflation: more commonly it is taken to refer to a moderate rate of inflation, such as the 2 per cent rate targeted, explicitly or implicitly, by many central banks in recent years.

2 See Jones (2016). This article draws heavily on various papers published over the past 15 years by Willem Buiter, Mitsuhiro Fukao, Gregory Mankiw, Marvin Goodfriend, Charles Goodhart, and Miles Kimball. The ideas also owe a good deal to the work of Silvio Gesell and Robert Eister before and during the Great Depression.

3 Every account would have a debit card and a cash-on-a-chip card. Payments through these accounts would be legal tender, but would not carry overdraft facilities.

4 It might also be necessary to declare as legally unenforceable contracts other than spot purchases and sales of real goods and services invoiced or denominated in cash currency.

5 Strictly, seigniorage is the return on the additional assets, real or financial, that a country receives as a result of external holdings of its currency, less the interest paid on the assets in which the foreigners invest their holdings.

REFERENCES

Crafts. N. and Mills. C. (2019), 'Is the UK productivity slowdown unprecedented?', Universities of Warwick and Loughborough. July.

Dolls, M., Fuest, C. and Peichl, A. (2009), 'Automatic stabilisers and economic crisis: US vs. Europe', IZA Discussion Paper no. 4310, July.

Johnson, P. (2018), 'Britain's tax system is an inefficient mess', *Financial Times*, 13 August.

Jones, R. (2015), 'Nothing to fear but fear itself?', Llewellyn Consulting Comment, 26 February.

—(2016), 'Over the boundary', Llewellyn Consulting Comment, 28 June.

https://doi.org/10.1177/002795011925000111 Published online by Cambridge University Press