Philip R Lane: Tail risks and the Irish economy

Lecture by Mr Philip R Lane, Governor of the Central Bank of Ireland, to the UCD School of Economics, Dublin, 16 April 2019.

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I. Introduction

My goal today is to discuss some tail risks facing the Irish economy. By tail risks, I mean shocks that are unlikely to occur but that would have a significant impact on the economy and financial system. In particular, I will focus on negative tail risks, in view of the mandate of the central bank to safeguard financial stability.

Although we are currently facing a near-term risk event in the form of a possible disorderly departure of the United Kingdom from the European Union, this has been much discussed and I will not dwell on it here.

In addition, the remarkable post-crisis recovery in the Irish economy means that we are approaching full employment and there has been a parallel uplift in asset prices, such that cyclical risk is more elevated than a few years ago. Indeed, the recent downgrade in the euro area growth forecast suggests that a pull back in growth performance is a material cyclical risk factor. Again, I will not focus on cyclical risk, which is relatively well-understood.

Rather, I wish to explore the tail risks embedded in some structural features of the Irish macro-financial system. In particular, the underlying structural factors driving macroeconomic performance and financial conditions may either undergo slow-moving trend shifts over time or, more acutely, experience discrete shocks that are realised over a relatively short time horizon.

Structural factors that are especially relevant for the Irish economy include the twin forces of globalisation and technological innovation. Over the last several decades, Ireland has benefited as a host location for some industries and firms that have been to the forefront in the globalisation of the world economy and the rise of high-tech and digital industries. Since the multinational sector is such an important determinant of overall economic performance, structural shifts that adversely affect these industries and firms constitute material macroeconomic tail risks for Ireland. In addition to much-discussed factors such as revisions to international tax regimes and the world trade system, idiosyncratic shocks to individual industries and firms could also be systemically important for Ireland, in view of the concentrated nature of the multinational sector.

Another type of structural shift relates to climate change. Through an increase in the frequency and scale of severe weather events, climate change may increase the intrinsic volatility of the economy. In addition, the structural transition to a low-carbon economy may be mis-managed, with both excessively-slow and excessively-fast adjustment paths generating financial stability risks. Since I addressed these issues in a recent speech, I will not focus on this topic today (Lane 2019). The Central Bank of Ireland has also recently joined the Network for Greening the Financial System, which is pooling the work of the global central banking and regulatory community on the macro-financial implications of climate change.

The structure of the rest of this speech is as follows. In Section II, I review some analytical issues in addressing structural risks. I discuss the resilience of the financial system in Section III, before turning to fiscal resilience in Section IV. Section V concludes.

II. Some Analytical Issues

How concerned should we be about macro-financial structural risks? It is possible to think about two types of risks: (a) a slow-moving but cumulatively large shift to the level of economic activity due to a shock to the trend path for the economy; and (b) a disaster event, in which there is an immediate and persistent disruptive shock (Barro and Jin 2018). While the latter scenario has been typically associated with wars, severe depressions and financial crises, the former scenario may capture shocks to long-term growth potential or other fundamentals, even if the full impact is not fully obvious in the short term (Aguiar and Gopinath 2007).

It is important to appreciate that structural shocks can have a larger impact on the level of economic activity in more open economies. In particular, the international mobility of capital, people, technology and finance acts to amplify shifts in the relative attractiveness of a country as a location for production. During the 1990s, Ireland benefited from a self-reinforcing positive location shock that enabled a sustained period of high growth rates. By way of contrast, an adverse location shock could be amplified by outflows of capital and labour and the loss of the technology embedded in departing multinational firms (McGrattan and Prescott 2010).

Of course, it is not easy to tell apart structural and cyclical shocks in real time (Krugman 1998). Given the difficulties in assigning probabilities, many investors, households and policy officials will be slow to adjust fully to a structural shock (Gennaioli and Shleifer 2018). The identification of shifts in the underlying structure of the economy is also made more challenging by the limitations of national accounting methods in a highly-globalised economy (Economic Statistics Review Group 2016, Lane 2017, Avdjiev et al 2018).

At the same time, incomplete information does not justify inaction bias in policymaking. Rather, given the potential impact of adverse tail risks on the economy and the financial system, prudence dictates that the policymakers look to ensure that the macro-financial system is resilient to such shocks.

A system is resilient if it buffers the impact of the shock. In contrast, the fragility of a non-resilient system serves to amplify the impact of an adverse event. In relation to the financial system, fragile banks that lack sufficient capital and liquidity buffers may respond to an adverse shock by pulling back on credit provision and thereby deepen its recessionary impact. In relation to fiscal policy, a fragile sovereign may not be able to engage in countervailing fiscal measures on account of funding difficulties.

Furthermore, as was sharply illustrated during the euro crisis, a doom loop between these twin fragilities may emerge, with a weak banking system threatening public solvency and a weak sovereign damaging the health of the banking system, with these doom loop dynamics operating through a variety of mechanisms.

For these reasons, it is imperative to build the resilience of both the financial system and the public finances vis-a-vis tail risks. In Section III, I first focus on the financial system, before turning to the fiscal situation in Section IV.

III. The Resilience of the Financial System

The resilience of the financial system is built with a variety of tools (see also Donnery 2019). At the level of individual firms, an intrusive supervisory and inspections regime enables the prudential regulator to monitor internal risk management systems, assess the fitness and probity of senior executives and track firm-specific risk exposures. In turn, if there are concerns, the prudential regulator can take corrective actions, whether through supervisory guidance, remediation programmes, capital add-ons or enforcement actions. One current pan-European example is provided by the push to reduce the scale of non-performing exposures on the balance sheets of banks, in view of the threat to resilience posed by these troubled loans in the event of a future adverse shock.

An additional element in improving financial resilience is contributed by the resolution authority.

By requiring the implementation of recovery and resolution plans and the issuance of sufficient loss-absorbing financial instruments, the resolution authority can both strengthen the resilience of individual firms and limit the systemic fallout in the event of a failure.

At the systemic level, the macroprudential authority can introduce a range of measures to enhance the resilience of the financial system. In Ireland, this has included borrower-based measures in the form of the set of limits on the size of mortgages, relative to the value of a property and the income of the borrower. It has also included the so-called O-SII (Other Systemically Important Institutions) capital buffer, which is levied in proportion to the systemic impact of individual firms.

In 2018, in recognition of the recovery in macro-financial cyclical conditions in recent years, the counter-cyclical capital buffer (CCyB) was triggered, with banks required to comply with an one percentage point increase in the ratio of capital to risk-weighted assets by July 2019. The CCyB safeguards against cyclical risk by adding to capital requirements during positive phases, in order that credit supply can be preserved during downturns by corresponding subtractions in capital requirements.

However, the CCyB does not address tail systemic risks that are orthogonal to the domestic macro-financial cycle. As discussed above, the primary systemic risk facing Ireland is its high dependence on multinational firms (leaving aside Brexit risk). If there were a persistent shock to this sector, the cumulative decline in economic activity would dwarf a normal cyclical recession, with attendant implications for the financial system. Moreover, this risk has a substantial country-specific element, in view of Ireland's customised economic model and the inevitability of concentration risk in a small country.

Accordingly, it makes sense for Ireland to address this risk factor by adding the option of the systemic risk buffer (SyRB) to its macroprudential toolkit. The advantage of the SyRB is that extra capital would improve loss-absorbing capacity if a systemic risk event occurred. Furthermore, credit supply could be further protected by switching off the SyRB under such circumstances.

For these reasons, I have recently written to the Minister for Finance and Public Expenditure and Reform to request that the power to activate the SyRB be granted to the Central Bank of Ireland in our capacity as the national macroprudential authority. As with any of our policy instruments, the calibration and timing of the SyRB will be based on a thorough evidence-based assessment of its benefits and costs. Furthermore, we adopt a holistic approach to policymaking, taking an integrated view of the interactions across the full set of macroprudential instruments (the range of capital buffers; the mortgage rules) and the overall capital position of the banking system.

Finally, a systemic shock may also trigger liquidity pressures. It follows that a resilient financial system is also characterised by a trustworthy deposit guarantee system and access (especially under crisis conditions) to effective central bank liquidity programmes. (In turn, the availability of central bank liquidity is only helpful if firms have available assets that can be offered as collateral, which is an additional element requiring monitoring by the prudential regulator.)

Given the multi-dimensional properties of a resilient financial system, our wide mandate enables the Central Bank of Ireland to follow a holistic "one Bank" approach. In particular, we are: the national central bank; the national competent authority for prudential regulation; the national resolution authority; the national macroprudential authority; and the operator of the national deposit guarantee system.

Furthermore, since we are also the national financial conduct regulator, we are able to recognise and integrate our work on building resilience with our conduct mandate. For instance, our mortgage rules serve both as a financial stability measure and as a mechanism to protect individual consumers from the risk of over-borrowing. Moreover, in relation to non-performing loans, our long-standing policy approach to mortgage arrears fully incorporates our dual responsibility to both protect vulnerable home owners and maintain financial stability. More generally, consumers are not protected by tolerating a fragile financial system that amplifies the adverse impact of tail risk events.

Although I have mainly focused on the banking system in this speech, we also pay increasing attention to the financial stability risks associated with non-bank financial intermediaries (Lane 2018a). At one level, the large externally-focused non-bank sector in Ireland could be affected by global shocks, even if there might only be a limited domestic impact of disruptions in this sector (Lane and Moloney 2017). However, investment funds and other non-bank intermediaries also play an increasing role in the financing of the domestic economy and, accordingly, we are scaling up our monitoring and analysis of domestically-relevant non-bank financial sector.

Finally, in view of its central role in determining our effectiveness, it should come as no surprise that resilience has been selected as one the five priority themes shaping our 2019–2021 Strategic Plan.

IV. Fiscal Resilience

Fiscal resilience exists if the public finances are sufficiently sound to enable policymakers to buffer adverse shocks through the operation of the automatic stabilisers and the activation of proportionate discretionary fiscal measures. In contrast, fiscal fragility amplifies adverse shocks through damaging feedback dynamics by which increases in the sovereign risk premium raise economy-wide funding costs and, in extremis, lead to a loss of market access.

The anchor of a resilient fiscal regime is a robust public balance sheet, in combination with a cyclically-appropriate time path for the budget balance. I have discussed the political economy challenges of implementing a prudentially-focused fiscal strategy elsewhere (Lane 1998, 1999, 2013, 2018b; Tornell and Lane 1999). Rather, I want to focus on some specific issues relating to the current Irish situation.

In particular, one current byproduct of Ireland’s status as an export platform for multinational firms is that there has been a surge in corporation tax revenues in recent years. A substantial proportion of the extra revenue relates to the external profits of domestically-resident multinational firms.

In addition, the public finances have also been boosted by the low interest rate environment, especially in view of the high level of sovereign debt (which is owed to foreign investors to a large degree). Analytically, the combination of extra corporation tax revenues generated by the overseas activities of multinational firms and lower interest payments to foreign investors can be interpreted as equivalent to a positive inward income transfer.

In terms of the cross-country experience, other types of inward transfers include the foreign earnings of commodity producers, net recipients of EU transfers and recipients of official aid. The analysis of such inward transfers has given rise to an extensive research literature. A basic lesson is that temporary windfall income should be treated differently to permanent income, due to the welfare gains from smoothing consumption and the long-term impact of temporary spending surges that may permanently damage the productivity of the tradable sector. (The latter phenomenon is known as the “Dutch Disease”.) It follows that temporary windfall income should be largely saved, through some mix of accumulating foreign assets and (subject to capacity limitations) adding to the domestic capital stock. While these principles are easily stated, it is not so easy to implement, in view of the obvious political economy pressures to increase consumption and domestic transfers in response to extra income.

Accordingly, the optimal fiscal strategy depends not only on the expected duration of the fiscal windfall but also on the risks associated with the cessation of these extra revenues. As discussed above, there are clear tail risk scenarios that could induce a reversal in the level of corporation tax revenues.

Equally, there is a vigorous global debate about the likely persistence of low interest rates. First, there is a global debate about the underlying trend in the long-term real interest rate. It is clear that there has been a downward drift in the long rate at least since the 1980s, with some studies going much further back in time. In turn, a persistent shift in the long rate can be attributed to trends in fundamental factors such as demographics and productivity growth. A permanent decline in the long rate has implications for asset valuations, debt sustainability and the net incomes of creditors and debtors.

While the long rate debate is common across countries, it is especially relevant for countries with significant net external debt positions. Ireland is a substantial net debtor, such that the long rate is an important determinant of national income, taking into account the burden of interest payments to foreign creditors. Since the Irish government is a significant net debtor, the level of the long rate is also a central factor in the dynamics of the public finances.

While the decline in the long rate since the 1980s is clear in the data, there is still substantial uncertainty about the persistence of this trend. For instance, two factors that have contributed to a decline in the long rate over the last fifteen years have been the decision by emerging economies (most prominently, China) to hold substantial quantities of advanced-economy safe assets (especially US treasuries) and the impact of the global financial crisis on desired investment and savings rates. Over time, the increasing maturity of local-currency financial systems and enhanced macroeconomic stability in emerging economies may be accompanied by lower holdings of advanced-economy safe assets. The ongoing recovery from the global financial crisis (including substantial cumulative private-sector deleveraging in advanced economies) may also see a decline in desired savings rates and step up in desired investment rates. All else equal, these factors would operate to push up equilibrium long rates. Accordingly, the duration and precise level of low long rates remains quite uncertain.

A current project at the Central Bank of Ireland is to provide a model-based analysis of the economics of such fiscal windfalls (Conefrey et al, 2019). This work delivers several findings. First, choosing to spend the extra revenues rather than running a larger surplus has a very different impact if the economy is far away from capacity limits than if there are conditions of full employment.

In particular, any crowding out of private-sector activity turns on the response of wages to the surge in public spending. Wage dynamics tend to be quite non-linear: wages do not substantially increase in response to extra demand unless there is sufficiently high pressure in the labour market. Accordingly, the net assessment of whether to spend windfall revenues should be revised once the economy hit capacity limits.

Second, it is important to recognise that there may be long-term consequences if the private-sector is crowded out as a result of excessive fiscal expansion. In particular, if it turns out that the windfall revenues are only temporary, downward rigidity in wages means that the decline in demand is not easily absorbed, with unemployment rising under this scenario.

More generally, the squeezing of private-sector activity has a persistent impact due to a range of factors, since myriad financial, investment and organisational frictions mean that the private sector can recover only slowly from declines in competitiveness (Benigno and Fornaro 2014).

At a qualitative level, these points hold true for all types of public spending (transfers, government consumption, public investment), even if the precise composition of fiscal policy needs to be taken into account in assessing the labour market impact of fiscal expansion. At the same time, temporary increases in public investment may be easier to reverse than expanding the level of social transfers or government consumption, while also adding to the long-run public capital stock.

Accordingly, the ranking of alternative spending options during a windfall phase in part turns on whether the public capital stock is assessed to be below its desired level. In particular, in the wake of a period of suppressed public investment during the crisis, a temporary phase of extra public investment may be less costly than alternative spending options in relation to windfall revenues.

Third, a failure to run surpluses during windfall phases may limit the capacity of the government to offset negative cyclical or structural shocks through fiscal loosening. If it turns out that concerns about the fiscal balance or the public balance sheet mean that the government must temper its fiscal response to an adverse shock, the decline in employment and output will be larger than if the state of the public finances permitted a full-scale fiscal response.

Finally, it is important to emphasise that the shock to inward windfall income considered in this discussion is quite a limited scenario. Much more disruptive would be an adverse shock that affected the domestic production decisions of multinational firms, since that would directly affect domestic employment, the domestic capital stock and the technology determining domestic productivity. The prospective scale of such a shock reinforces the advisability of a prudential approach to fiscal policy.

V. Conclusions

The theme of this speech has been the responsibility of policymakers to look beyond the short-term horizon of the macro-financial cycle and also ensure financial and fiscal resilience against tail risks.

This principle is especially relevant for Ireland, in view of our high dependence on the multinational sector and our associated exposures to shifts in technological trends, the international trade environment and global tax regimes. In addition, we have to be mindful of global structural factors, such as climate change and the trend in the long-term interest rate.

The Central Bank of Ireland is committed to safeguarding financial stability through the active deployment of macroprudential tools, including the mortgage rules and the already-activated counter-cyclical capital buffer. As indicated above, our plan now is to examine the potential additional contribution of the systemic risk buffer in ensuring that the banking system would be resilient in the event of a structural shock to the Irish economy.

In relation to our fiscal advice, our analysis indicates that the impact of fiscal policy is quite different once the economy approaches capacity limits. In particular, the crowding out of private-sector firms if there is excessive fiscal expansion under conditions of full employment may have adverse consequences for long-term economic performance. In addition, a failure to run sufficient surpluses during phases of good economic performance may limit the ability of the government to offset adverse cyclical or structural shocks.

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