CHAPTER 10

Fiscal Consolidation Strategies: Evidence from the International Experience

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Although Ireland has done much already to reduce its government deficit, the scale of the fiscal adjustment required means that there is still some distance to go. In international terms, Ireland's fiscal consolidation will ultimately prove to be one of the largest recorded in the Organisation for Economic Co-operation and Development (OECD). In relation to the policy landscape (Figure 1.1), the extent of the policy challenge and the agreed goal of reducing the deficit have long been clear. The issue that remains is to determine which policy options to execute in order to reach that goal.

Evidence relating to previous large fiscal consolidations, in Ireland and elsewhere, has the potential to assist in this task. There is great variation in outcomes: some fiscal consolidations have been far more successful than others. If previous fiscal consolidations share common success factors, then fiscal policy in Ireland can absorb lessons from them and look to emulate the more successful programmes of adjustment. The primary research question addressed in this chapter, therefore, is: Do successful periods of fiscal consolidation share common success factors, and if so, what are they?

We employ two methods to address the issue. First, we conduct a meta-analysis of econometric studies of fiscal consolidation periods. Several existing studies have employed data from previous episodes of fiscal consolidation to build econometric models designed to identify factors associated with successful outcomes. We draw inferences from the pattern of results obtained across a group of such studies. Second, we consider in greater detail a set of case studies of fiscal consolidations that have been selected because of their similarity to the present Irish situation.

We find that there are indeed common factors associated with successful consolidations, which are defined as those that reduce the government deficit and return it to a more sustainable state. Most notably, we find that the likelihood of

successful consolidation is related to the composition of the adjustment. Previous success has proved to be more likely where the bulk of the adjustment was undertaken less through increased taxation than through reduced expenditure – in particular current rather than capital expenditure. Consolidations that concentrate on reduced current expenditure tend to do less damage to economic growth and are more likely to restore stability to the public finances. A stable currency environment is also conducive to success. Our findings therefore support an ongoing balance of adjustment in Ireland that places most of the burden on reductions in current public expenditure.

Future research might uncover in more detail the mechanisms that underlie the main result, and what causes the not-insignificant variation in the relationship between the composition of the adjustment and a successful outcome.

BACKGROUND

The current need for fiscal consolidation is driven primarily by the risk that existing government debt may become unsustainable. In a situation where no budgetary correction is implemented and expenditures continue to exceed government revenues, the rise in interest costs can require further borrowings to finance repayments until such time as economic growth fails to counteract an explosive rise in government debt ratios.

It is important to remember that budgetary adjustment will inevitably have some influence on economic activity and vice versa. A principal objective of any fiscal consolidation should be to limit the costs, in terms of economic growth, given the choice of fiscal adjustment measures available. Large debt servicing payments represent a significant opportunity cost in terms of expenditure alternatives foregone. A greater degree of taxation required just to service debt also increases the likelihood of undesirable and distortionary elements being introduced into the economy. This chapter examines some of the success factors evident in previous consolidation episodes, in Ireland and elsewhere, aiming to learn lessons for the current situation in Ireland.

The context for this chapter is the current public finance problems confronting the Irish state. Ireland's envisaged consolidation, which totals over 19 per cent of GDP, is exceptionally demanding. This compares to an average of less than 5 per cent of GDP for cumulative OECD consolidation episodes recorded over the 1978 to 2009 period.

The chapter is organised as follows. The next section summarises the findings from the various existing studies based on a range of experiences of fiscal consolidation episodes internationally. The third section details individual case studies of particular relevance to the current Irish situation. Lessons from both the broader literature and the individual case studies are then drawn out in the fourth section before the final section concludes.

META-ANALYSIS[153]

This section reviews a wide but not exhaustive body of empirical research in order to ascertain a broad set of policy guidelines relating to fiscal consolidation. The research is based on the combined consolidation experiences of different economies and different governments so that the results, while quite generalisable, may not be entirely applicable as prescriptive policy frameworks for individual cases. Nevertheless, the findings do present a very useful starting point from which to investigate the preferred strategy for a successful fiscal consolidation in a country like Ireland.

We organise the meta-analysis according to a number of prominent elements found in previous consolidation processes: the pace of consolidation; the composition of consolidation in terms of expenditure cuts versus tax increases; and the types of expenditure cuts undertaken. We then explore two other elements that feed into the impact of consolidations: namely exchange-rate changes, monetary policy, and political structure.

Pace of consolidation

Larch and Turrini (2011) define fiscal consolidations as either an improvement of the cyclically adjusted primary balance (CAPB) equal to or greater than 1.5 per cent of GDP in one year, or a 1.5 per cent improvement over three years, during which there is no disimprovement in the CAPB greater than 0.5 per cent in any of those years. The first type of adjustment, indicative of a more intense consolidation, is termed a 'cold shower', the second a 'gradual consolidation'. Successful adjustments are defined in terms of tackling the current deficit, with a success involving no disimprovement in the CAPB over the following three years of greater than 0.75 per cent compared with the CAPB in the final year of adjustment. Their data set covers all 27 EU member states over the period 1971 to 2006, although data for individual country-years is not always available. Consolidation is found to take place in 146 of the 634 country-years, one-third of which were successful. Probit analysis of successful consolidations reveals that the severity of the adjustment is not the deciding factor as 'cold showers' and 'gradual adjustments' are equally successful for improving the CAPB.

More recent work by Baum *et al.* (2012), explored further by the International Monetary Fund (IMF) (2012a), emphasises how fiscal multipliers can vary across countries and time. The relative position on the business cycle is found to be a key determinant of the magnitude of the impact that fiscal policy shocks can have. Using a nonlinear threshold vector autoregressive model for G7 countries from the 1970s to the present, their results suggest that, in the short run, fiscal policy shocks can have larger negative impacts on growth if the economy is already in a downturn. This is also taken to imply that more gradual approaches

153 A more detailed review is contained in Casey *et al.* (2013).

to fiscal consolidation are preferable in cases where output is below its potential so as to result in less damage to short-run growth. A 'cold shower' approach, by contrast, would be more desirable in cases where output is already above potential. Ultimately, however, their findings suggest that the differences relating to the two approaches diminish over the long run.

Composition of consolidation

A key study in the early literature is Alesina and Perotti (1995), in which adjustments are deemed successful if the debt-to-GDP ratio is 5 percentage points lower three years later. Standard measures of the fiscal position, as in the budget deficit, can change from year to year, not only because of discretionary fiscal action, but also because of the interrelationship between fiscal health and the economy.

The sample used by Alesina and Perotti (1995) consists of 20 OECD countries for the years 1960 to 1992 and contains 52 episodes of fiscal adjustment, 14 of which are classified as successful. The authors find that successful consolidations involve slightly larger adjustments on average than unsuccessful episodes and are far more focused on expenditure cuts. Indeed, 80 per cent of the adjustment in successful consolidations is found to come from changes in expenditure, the bulk of which involves cuts in the government wage bill or cuts in social transfers. In terms of the unsuccessful consolidations, tax increases typically outweighed expenditure cuts, with both direct and indirect taxes increasing substantially and a rise in the share of public employment. In contrast, successful episodes were characterised by public-sector employment shares that did not expand during the adjustment period.

While the research of Larch and Turrini (2011) suggests that the pace of consolidation may not be important, they do find that the composition of the adjustment is central, with spending cuts increasing the chances of an adjustment's success significantly. This finding is valid for all items of current expenditure, whereas spending cuts in government investment reduce the likelihood of success and are more likely to be reversed. The authors also find that fiscal consolidations accompanied by labour and product market reforms are more likely to prove successful.

Alesina and Ardagna (2012) find that, when compared with tax-based approaches, expenditure-based adjustments are more durable and less likely to be reversed, are associated with smaller recessions and, on occasion, may correspond with expansionary (or non-recessionary) outcomes if accompanied by growth-friendly policies, such as wage agreements with unions, public-sector wage restraint, accommodative monetary policies and/or exchange-rate devaluations. The IMF (2010), motivated by a desire to isolate specific fiscal measures that are taken with the expressed intent of reducing the budget deficit, arrive at similar conclusions: expenditure-based adjustments produce less contractionary outcomes relative to taxation-based adjustments.

Given the evidence, it is worth asking why fiscal consolidations that primarily

target revenues rather than expenditures are so often implemented. One answer relates to how palatable expenditure measures are relative to taxation measures (Alesina and Perotti, 1995). The argument goes that risk-averse politicians may find it easier to raise certain taxes than to implement expenditure cuts. Governments are more likely to favour the easy choices of raising taxation and cutting investment, at first, before turning to areas of current expenditure that are more sensitive and take longer to implement. Another reason may be the belief that it is preferable to defer certain expenditure reductions while more palatable productivity increases are still possible in the early stages of consolidation. A final reason relates to the desire to avoid increases in income inequality, particularly those that may arise from cuts to social transfers (Alesina and Perotti, 1996). Political sensitivity may be overstated, however, as evidence from OECD countries, South America and the US fails to support the idea that adjustments generally lead to loss of office (see Alesina *et al.*, 1998; Kraemer, 1997; Peltzman, 1992).

Although largely taxation-based consolidations tend to be discouraged in the literature, a mix of policy options is clearly a necessity in any serious consolidation of public finances. Optimal taxation measures for avoiding reductions in output can be gleaned from the OECD (2009a). The revenue-raising measures with the least impact are found to be environmental taxes (e.g., direct carbon taxes or the auction of emissions permits), consumption taxes (i.e. VAT) and property taxes.

Types of expenditure cuts

Using a dataset consisting of 20 OECD countries, Alesina and Perotti (1996) extend their definitions of fiscal tightening to allow for multi-year cases to be examined as single programmes. A disadvantage of this approach is that it risks associating favourable outcomes with other intervening factors, thus making the findings somewhat more tenuous when observed in isolation. Under the definitions of success, one-quarter of the policy implementations are found to have successful outcomes, with results reasonably resilient to alternative variations on these definitions.

The findings show that successful adjustments typically involved compositions where approximately 73 per cent was on the expenditure side. By contrast, unsuccessful cases related to compositions where just 44 per cent of the fiscal consolidation was expenditure based. The authors show that unsuccessful cases involved expenditure cuts where more than two-thirds expenditure were related to capital expenditure. Success was more likely to be found in cases where capital expenditure reductions were lower and typically in the order of 20 per cent of total expenditure cuts. Critically, the authors again find that successful adjustment strategies are characterised by large reductions in government wage bills and transfers, with these comprising almost 60 per cent of the total reduction in expenditure. Moreover, the findings also suggest that expenditure-based adjustments induce longer lasting consolidations, while taxation-based adjustments are less persistent and more likely to be contractionary.

Using the same sample of OECD countries over a slightly longer period, Alesina and Ardagna (1998) find the crucial ingredients to a successful, long lasting and even expansionary adjustment are those that involve an adjustment that emphasises expenditure reductions in the areas of transfers, welfare programmes and government wages. They highlight the importance of some form of wage agreement with unions in order to insure broader wage moderation and the beneficial role of exchange rate devaluation immediately before the adjustment. Again, the avoidance of large tax-based adjustments is also stressed, with such policies found to be more likely to result in less permanent consolidations. No example of a large tax-based adjustment is found to be expansionary in their sample.

Alesina *et al.* (2002) suggest that the response of private sector investment offers one explanation for why expenditure-based consolidations are typically found to be less contractionary. Taxes are more likely to deter investment, while spending reductions are less likely to have such negative impacts. Public expenditure reductions in the form of reduced government wages and reduced social transfers may actually induce increased private investment, buoyed by the downward pressure on the equilibrium wage.[154]

A vast OECD literature summarised in *Economic Outlook 2007* and presented in Sutherland *et al.* (2012) utilises potential output to measure the degree of consolidation. In the *OECD Economic Outlook 2007*, fiscal consolidations are identified as an improvement in the CAPB of at least 1 per cent of potential GDP in one year or over the course of two years with at least a 0.5 per cent improvement in the first of the two years. The episode continues for as long the CAPB improves, although an interruption is allowed as long as the deterioration of the CAPB does not exceed 0.3 per cent and is more than offset in the following year. Consolidations were judged successful if the fiscal adjustment was enough to stabilise the debt-to-GDP ratio within two years. Of the 85 episodes of consolidation identified across 24 counties between 1978 and 2007, slightly more than half were successful, most were short (median duration of two years) and were of limited magnitude (median underlying improvement of budget position of 2.8 per cent of GDP). Using probit analysis, the authors find that a greater weight on cuts to social spending increases the chances of successful outcomes. While expenditure-based consolidations were more likely to be successful, almost two-thirds of the episodes reviewed by the OECD involved larger contributions from revenue-based increases. Fiscal rules that focused on controlling expenditure were found to be associated with greater success, producing larger and longer adjustments – locking in gains from consolidation and maintaining debt-stabilising primary balances.

Findings from Barrios *et al.* (2010) lend support to earlier findings that expenditure-led consolidations tend to be more successful. The authors use probit models to link determinants of success to the initial decisions prompting consolidation episodes. These decisions may depend on the economic circumstances prior

154 These findings are in keeping with research elsewhere (see Finn, 1998; Daveri and Tabellini, 2000; and Ardagna, 2007).

to any adjustment and their work specifically controls for initial debt level. The definition of consolidation used is an improvement in the CAPB of at least 1.5 percentage points taking place in one year ('cold shower'), or taking place over three years if the CAPB does not deteriorate by more than 0.5 per cent of GDP in any year (gradual consolidation). Their findings suggest that repairing the financial sector, if in a state of crisis, is a necessary pre-condition for the success of any consolidation. Even after a financial sector crisis has been repaired, the presence of a financial crisis usually entails less successful consolidations (even when sample selection bias is controlled for), something which the authors note can be compensated for to some degree by 'cold shower'-style adjustments.[155] For those economies that have high initial debt levels, low growth potential and high interest rates, sharper sustained contractions are more likely to bear fruit if the 'snowball effect'[156] is positive and greater than 1 per cent of GDP, while countries in which these specific constraints are less evident are more likely to benefit from more gradual adjustment strategies.

Barrios *et al.* (2010) document a range of unobserved factors that may explain frequent findings that larger shares of current expenditure reductions are more likely to result in a successful consolidation of public finances. Largely expenditure-based measures are more likely to trigger a fall in private saving and in interest rates, whereas largely revenue-based consolidations are likely to have the opposite effect. An emphasis on current expenditure reductions is more likely to be successful as it reflects a stronger overall commitment to fiscal consolidation by all participants. As measures aimed at expenditure reduction are typically longer lasting, these can reassure investors of the credibility of the adjustment and result in lower interest costs on long-term debt. This can, in turn, create a positive feedback loop for the sustainability of the deficit/debt dynamics by lowering the debt-servicing costs that form a major part of their make-up (Cottarelli and Viñals, 2009). It has also been suggested that expenditure cuts are more successful because they are frequently accompanied by reforms aimed at improving public-service efficiency (European Commission, 2007).

One problem associated with the previous work on the success of fiscal consolidations is that uncertainty regarding the time frame within which consolidation would lead to an improvement in debt sustainability does not lend itself to the use of regression models using yearly data. Molnar (2012) covers the

155 The authors note that in their study of EU economies success rates are about 56 per cent when consolidation is started after a financial crisis ends compared to only 9 per cent when consolidation starts during a financial crisis. This compares with a 34 per cent success rate for the benchmark case of no financial crisis.

156 High initial debt levels here are defined as those that are above 70 per cent of GDP. The snowball effect relates to the average interest rates on the national debt less the nominal GDP growth rate. The authors note that, in high debt cases, gradual consolidations are only warranted in situations where the snowball effect is negative or in situations where it is positive, but very small.

years 1960 to 2009 and uses three specifications: (i) where debt stabilises one year after the end of the consolidation episode, (ii) two years after, or (iii) three years after. The findings show that faster growth, lower inflation and declining interest rates increase the probability of debt stabilisation. Consolidations with a greater weight on expenditure cuts were more likely to stabilise the debt-to-GDP ratio. However, for larger consolidations, debt stabilisation was more likely to be temporary for those consolidations based more on spending reductions. This implies that large cuts in spending are more prone to backsliding in future years.

Exchange rate changes

A common argument (such as those expressed by Lambertini and Tavares, 2005; IMF, 2010 and Devries *et al.*, 2011) is that exchange rate devaluations are key features behind the success of fiscal adjustments. Alesina and Ardagna (2012) suggest this point may be overstated. A distinct lack of correlation between successful reductions in debt ratios in all the episodes of fiscal adjustments studied and the rate of growth of the nominal effective exchange rate is evident. Analysis by Barrios *et al.* (2010) on the role of exchange rate depreciations fails to reveal any significant bearing on the success of a fiscal consolidation, even when controlling for countries' degree of openness. The authors note that such findings do not necessarily mean that devaluations or depreciations will not help fiscal consolidations. The findings do suggest, however, that the evidence linking fiscal consolidation success with nominal devaluations is far from convincing. Even where an association is found to be significant, the relationship is often small.

Monetary policy

The interaction between monetary policy and fiscal policy is often seen as an important feature in determining the success of fiscal consolidation outcomes. Using over 100 years of data, Simon *et al.* (2012) examine the experiences of 26 high-debt episodes in advanced economies and combine this broad analysis with six case studies. The authors conclude that a supportive monetary environment is clearly a key ingredient in cases of successful debt reduction. Looking at episodes in Belgium, Canada, and Italy, they note that, despite implementing tight fiscal policies, each economy was unable to achieve a reduction in debt until such time as real interest rates fell and credible monetary policy frameworks were established. Earlier research by the IMF (2010) shows that interest rate reductions help to cushion the blow to domestic demand that results from fiscal consolidation measures. More recently, work by Alesina *et al.* (2012) and Alesina and Ardagna (2012) counters claims that differences in outcomes resulting from the type of adjustment employed might be explained away by the interaction with monetary policy. In controlling for monetary-policy decisions, they still find systematic differences associated with the composition of the adjustment.

Political structure

Although it does not lend itself to any obvious policy ramifications, it has been argued that the structure of governments can play an important role in determining the success of fiscal consolidations. Roubini and Sachs' (1988) findings suggest that weak and divided governments (with shorter average tenures in government also playing a role) are less effective in reducing budgetary deficits than stable and majority-party governments, typically taking longer to reduce these and having a tendency to oversee larger deficits. One reason posited for this feature is the veto power held by small coalition partners over policy changes.

Alesina and Perotti (1995) suggest that coalition governments show the worst performance in terms of implementing successful fiscal adjustments, when compared against single-party majority governments and even minority governments. Examining political factors relating to fiscal adjustment outcomes, the authors found that only 8.7 per cent of the coalition governments studied implemented successful consolidations, when compared with 35.7 per cent of single-party majority governments and 46.7 per cent of minority governments.

Summary

As might be expected, there is a great variety in the approaches adopted by different countries in addressing fiscal consolidation. Table 10.1 provides a summary of the key findings from each of the papers reviewed.

Table 10.1: Summary of main findings from meta-analysis

Study	Number of countries	Time period	Measure used	Definition of fiscal consolidation	Dependent variable	Method of analysis	Main findings
Alesina and Ardagna (2009)	20 (OECD)	1970–2007	BFI[157]	At least 1.5 percentage points of GDP improvement in CAPB in one year.	Cumulative debt/GDP improvement is greater than 4.5 percentage points.	OLS regressions.	Composition of the fiscal adjustment matters more than its size in terms of GDP growth impact. Fiscal adjustments associated with higher GDP outcomes tend to be those involving a larger share of reduction in current spending in Government wage and non-wage components as well as subsidies.
Alesina and Perotti (1995)	20 (OECD)	1960–1992	BFI	Improvement in the CAPB of greater than 1.5% of GDP	Debt/GDP improves by 5% or more after three years.	Descriptive statistics.	Successful consolidations tend to be slightly larger and comprised mainly of expenditure cuts.
Alesina and Perotti (1996)	20 (OECD)	1960–1992	BFI	(i) A year when BFI falls by more than 1.5% of GDP. (ii) Periods of two consecutive years where BFI falls by at least 1.25% in each year.	(i) BFI is on average at least 2% of GDP lower than in the last year of tightening three years later. (ii) Debt-to-GDP ratio is 5% of GDP below level in last year of consolidation.	Descriptive statistics and case studies.	Successful adjustments typically 73% expenditure based. Capital expenditure reductions relatively lower part of expenditure-side measures relative to current expenditure and typically in the order of 20% of total expenditure cuts. Successful episodes characterised by large reductions in government wage bills and transfers, with these comprising almost 60% of total reduction in expenditure.

157 The BFI measure attempts to control for some of the problems associated with cyclicality by providing a measure of the difference between some standard measure of an actual budgetary outcome, compared with the same measure in a hypothetical case where no changes in cyclically-related developments exist (e.g., in the case of rising unemployment).

Table 10.1: Summary of main findings from meta-analysis (continued)

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Alesina and Ardagna (1998)	20 (OECD)	1960–1994	BFI	Year in which the BFI improves by at least 2% of GDP or a period of two consecutive years in which the BFI improves by at least 1.5% of GDP per year, in both years.	(i) Three years after the consolidation, the BFI is on average at least 2% of GDP below its value in the year of tight policy, or (ii) Three years after the consolidation, the debt-to-GDP ratio is 5% of GDP below its level in the year of consolidation.	Probit regression.	Composition of successful adjustments emphasises expenditure reductions in the areas of transfers, welfare programmes and government wages. Wage agreement with unions and exchange-rate devaluations immediately before adjustments are beneficial.

Table 10.1: Summary of main findings from meta-analysis (continued)

Study	Number of countries	Time period	Measure used	Definition of fiscal consolidation	Definition of success	Method of analysis	Main findings
Barrios *et al.* (2010)	35	1970–2008	CAPB (OECD)	(i) An improvement in the CAPB of at least 1.5 percentage points taking place in one year ('cold shower'), or (ii) Taking place over three years if each and every year the CAPB does not deteriorate by more than 0.5% of GDP (gradual consolidation).	Debt-to-GDP ratio is reduced by at least 5 percentage points of GDP in the three years following a consolidation episode.	Probit regression.	Repairing financial sector is necessary pre-condition for success of any consolidation and financial crises are more likely to entail less successful consolidations. Expenditure-based measures are more likely to trigger falls in private saving and interest rates. Revenue-based consolidations are likely to have the opposite effect. Particular emphases on current expenditure reductions are more likely to be successful because they reflect stronger overall commitment to fiscal consolidation.

Table 10.1: Summary of main findings from meta-analysis (continued)

Study	Number of countries	Time period	Measure used	Definition of fiscal consolidation	Definition of success	Method of analysis	Main findings
Guichard (2007)	24	1978–2005	CAPB (OECD)	Improvement in the CAPB of at least 1% of potential GDP in one year or over the course of two years with at least a 0.5% improvement in the first of the two years.	Adjustment large enough to stabilise Debt/GDP within two years considering the gap between the actual primary balance and debt-stabilising primary balance.	Probit regression.	Expenditure-based consolidations are important for yielding lower household savings and better growth outcomes. A greater weight on cuts to social spending increases chances of successful outcomes. Fiscal rules focusing on expenditure important for locking in gains produced during consolidation and maintaining debt-stabilising primary balance.
IMF (2010)	27 (EU)	1971–2006	CAPB (OECD)	(i) Improvement in the CAPB of greater than 1.5% ('cold shower'). (ii) A 1.5% improvement over three years during which there is no disimprovement in the CAPB greater than 0.5% in any given year (gradual).	No disimprovement of the CAPB greater than 0.75% over the three years after final year of adjustment.	Probit regression.	Severity of adjustment not associated with success (i.e. 'cold shower' and gradual adjustments are equally successful). Reductions in all items of current expenditure significantly increase likelihood of success. Cuts to investment reduce likelihood of success and are more likely to be reversed. Accompanying product and labour market reforms increase likelihood of success.

Table 10.1: Summary of main findings from meta-analysis (continued)

Study	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Larch & Turini (2011)	24	1960–2009	CAPB (OECD)	Range of definitions from any improvement in the CAPB to an improvement greater than 2%.	Debt-to-GDP ratio stabilises within (i) one year (ii) two years and (iii) three years.	Probit, duration, truncated regressions & bivariate Heckman selection model.	Spending-based consolidations more likely to be successful in stabilising debt, but also more prone to backsliding when very large. Fiscal rules (both expenditure and balance rules), higher growth, lower inflation and declining long-term interest rates also increase chances of success.
Molnar (2012)	15	1980–2009	Action-based	Introduction of policies motivated by deficit reduction.	n/a.	Impulse response functions.	Spending cuts less harmful to growth. Adjustments more painful if interest rates and exchange rates are fixed.

INDIVIDUAL CASE STUDIES

As noted in the previous section, there are many international examples of episodes of fiscal consolidation. Unfortunately, successful experiences in other economies do not provide ready models that can easily be replicated and fewer still come close to mirroring the environment that characterises the modern Irish economy. It is also difficult to arrive at specific recommendations, when much empirical work elsewhere lacks strong macroeconomic models that can capture specific features of monetary policy and labour market interactions reliably. In order to identify past experiences that may be more relevant to Irish policymakers, the following section draws from several specific case studies involving relatively similar, small, open economies operating within comparable exchange-rate regimes. For example, Denmark, Latvia, Lithuania and Estonia bear some structural similarities to Ireland in the sense that each represents a small, open economy with relatively flexible labour markets. The relative success of the Baltic States in reducing sizable fiscal deficits within a fixed-exchange rate regime has meant that these economies are uniquely interesting as case studies from an Irish perspective.

Ireland, 1983–1984 and 1987–1989

A starting point from which to draw insights is the past experience of the Irish economy itself. The fiscal consolidation between 1987 and 1989 witnessed a correction in the general government deficit of almost 8 per cent and in the CAPB of 6.3 percentage points. The adjustment was preceded by a period during which the need for substantial adjustment was well recognised. Previous efforts to correct the budget deficit had been stymied by a variety of factors, such as a succession of insecure minority or coalition governments, unfavourable external economic conditions, and higher global real interest rates earlier in the decade (see Honohan and Walsh, 2002). Moreover, growth was stunted by a significant sterling devaluation that started in mid-1985 and lasted until early 1987.

Looking at the composition of fiscal consolidation reveals a dichotomy between the initial period of adjustment (1982–1984) and the later period (1987–1989). The focus of earlier consolidation was geared more heavily towards taxation. Aside from the unfortunate timing of this adjustment given the weak external environment, the emphasis on taxation was subsequently perceived as largely counter-productive, discouraging investment and distorting labour market incentives, while encouraging tax evasion and tax avoidance behaviours (Considine and Duffy, 2007). In 1987 a revised 'Programme for National Recovery' was launched to tackle the persistent fiscal deficit and a growing national debt. The composition of the adjustment signalled a preference for deep-rooted expenditure reform over previously prioritised tax increases and, in particular, a focus on current expenditure reductions. As noted by McAleese and McCarthy (1989), most of the reduction came from lower government consumption and government

investment, rather than from increases in discretionary taxes as happened in 1982. Taking all discretionary measures over the adjustment period, approximately three-quarters of the budgetary measures consisted of expenditure reductions (Perotti, 2013; Devries *et al.*, 2011).[158]

In terms of primary expenditure, the overwhelming majority (some three-quarters) of the *ex ante* reduction ultimately came from reduced current expenditures, with the remainder due to cutbacks in capital expenditure (3 per cent of GDP). The most prominent reductions on the current side were across various forms of social spending as well as wage restraint and the reduction in public sector numbers. The reduced public sector numbers proved to be a relatively valuable source of durable savings over the decade that followed.

Capital expenditure was also subjected to cuts. On average, capital expenditures nearly halved from previous levels (1982–1986) during the 1987–1990 period. The emphasis on capital expenditure reductions has since been described as a 'mistake in retrospect' by those involved (McCarthy, 2009). This acknowledgment echoes findings in the broader literature that reductions in current expenditure are typically more successful for producing more durable adjustments that are also less likely to be reversed.

The lessons that can be drawn for the current crisis are limited somewhat by the extent of the external and non-discretionary factors that assisted the subsequent recovery. Bipartisan support for consolidation, an emergent boom in the UK economy, a coincident appreciation in sterling, a marked rise in net outward migration supported by the UK recovery, continued foreign direct investment (FDI) inflows and substantial EU aid in the form of Structural Fund allocations, all helped to create a fortuitous backdrop for the Irish consolidation. Another factor aiding in the recovery at the time, but not applicable in the current context, was the flexibility of the semi-peg.[159] While the European Exchange Rate Mechanism (ERM) was ostensibly a fixed-exchange rate regime, realignments meant that Ireland was able to devalue its currency by 8 per cent in 1986 – thus boosting competitiveness and aiding Irish exports before the implementation of renewed fiscal consolidation and before a policy of maintaining a stable exchange rate.

However, a number of lessons can be derived from the Irish experience in the 1980s. In particular, the later adjustment – with its greater emphasis on expenditure adjustments over revenue-based measures – provides some insights for the current programme of consolidation. The subsequent stability of the exchange rate after a significant early devaluation can also inform current policy, particularly given that much of the competitiveness losses during the boom have already been eroded.

158 Note that this composition excludes the 1988 tax amnesty that netted the equivalent of some 2.1 per cent of GDP in revenues because of its once-off nature. Including this, the estimated consolidation between 1986 and 1989 was almost equally split between revenue-based and expenditure-based measures.

159 A semi-pegged exchange rate system involves pegging currency values within specified ranges

Denmark, 1983–1986

Another remarkable adjustment episode is that of the Danish consolidation which took place early in the 1980s.[160] The correction in public finances saw the cyclically adjusted primary deficit improve by close to 11 per cent of GDP over the course of four years. The OECD (1987) estimates attribute three-quarters of the improvement in the overall balance that ensued to discretionary factors as opposed to cyclical improvements in economic activity.

Upon entering government in late 1982, a strong liberal-conservative coalition immediately commenced a medium-run fiscal stabilization programme split almost equally between expenditure-based and revenue-based measures.[161] Relative political stability was to be a feature throughout the period of adjustment: the same government coalition subsequently survived elections in 1984, 1987 and in June 1988. On the expenditure side, an emphasis on current spending was favoured, with government wages, public consumption and wide-ranging social transfer items targeted for reductions. In addition to this, numbers employed in the public sector were frozen. Similar measures targeting wage restraint elsewhere were imposed and an explicit agreement with unions was formed in 1982, wherein unions conceded to a wage freeze in addition to the suspension of wage indexation and a ceiling on public sector wage increases (Hallerberg, 2004).

Within the European Monetary System (EMS), the Danish kroner devalued four times, particularly in the 1981–1982 period. While this initially boosted competitiveness, the benefits were counteracted by wages that were still rising even as the rate of inflation had fallen substantially. Similarly, long-term nominal interest rates, having soared to just over 20 per cent in 1982, fell to 14 per cent in 1983 and 1984, before stabilising at around 10 per cent in the following seven years.

In terms of taxation measures, the largest share of tax increases related to direct taxes on households and corporations while various social security contributions were also raised. This preference for direct taxation was despite the fact that tax rates were already relatively high to begin with. A key consideration, as observed by De Bonis and Thimann (1999), is the role played by the increased stability in the external sector created when a credible commitment to a stable exchange rate was announced. Together with a credible fiscal adjustment and an easing in monetary policy, this helped to reduce the exchange rate risk premium attached

160 See Alesina and Ardagna (1998), Perotti (2011) for excellent summaries of the episode.

161 Perotti (2011) puts the share of revenue-based measures at 55 per cent of the total, whereas Devries *et al.* (2011) estimate expenditure cuts as roughly two-thirds. The difference is due to the latter classifying certain austerity measures that took place within the same time frame as other measures as being for 'countercyclical purposes'. We include the additional tax measures taken by Denmark in 1985 and 1986 as in Perotti (2011), but we also reduce this by the 1986 expansionary measures highlighted in Devries *et al.* (2011).

to long-term interest rates, thus narrowing the yield differential vis-à-vis other countries in the ERM.

The Baltic States, 2009–2012

The experiences of Estonia, Latvia and Lithuania in the late 2000s have entered numerous discussions of the challenges facing peripheral economies in the euro area since the debt crisis began to escalate. This is due in no small part to the fact that these economies resisted the temptation of currency devaluations in favour of maintaining pegs to the euro. These decisions were motivated primarily by the anticipation of eventual accession to the euro area.

A rapid rise in current expenditures across the Baltic governments marked the pre-crisis period, with increases running far above levels of inflation. Large capital inflows (Grennes and Strazds, 2012) created wider inflationary pressure during the boom, while broadly balanced budgets masked larger underlying structural deficits. A marked reversal in the capital inflows combined with a pronounced weakening in external demand provoked a sharp downturn in 2009. Boom-related revenue buoyancy dissipated quickly. Weaknesses in tax administration were compounded by deteriorating tax compliance during this period and a simultaneous drawdown of many unclaimed VAT refunds (Purfield and Rosenberg, 2010). Despite severe double-digit declines in economic activity across the Baltic economies during 2009, a stabilisation in activity followed in 2010 and a return to strong growth was experienced in 2011.

While maintaining fixed exchange rates, the combined impact of wage declines and productivity gains in the Baltic economies was sizable enough to regain much of the competitiveness lost during the preceding expansions. This helped to promote swift macroeconomic adjustments, so that the recoveries in economic activity were initially driven by external demand and were increasingly bolstered by domestic demand thereafter.

Another factor, illustrated by Lindner (2011), relates to the role played by the structure of the banking sectors in the Baltic economies, which were dominated by foreign, particularly Scandinavian, credit institutions.[162] International lenders maintained support for subsidiaries in the region, while also providing some financial sector stability and ongoing credit lines as deep recessions ensued. Aside from the rescue of the domestically owned Parex bank in Latvia in November 2008, the costs to the Baltic economies of the crisis were relatively softened by the predominance of foreign-owned institutions. The speed at which these institutions slowed capital inflows forced the Baltic economies to adjust macroeconomic imbalances in a very short period of time.

162 Market shares held by such institutions typically ranged from 68 per cent in Latvia to 97 per cent in Estonia, compared to market shares in Portugal and Greece, for example, where independent domestic banks had far more dominant market shares equivalent to 80 per cent and 60 per cent, respectively.

The fiscal consolidation programmes in the Baltic economies were heavily frontloaded. The Latvian adjustment saw measures equivalent to just over 8 per cent of GDP implemented in the first year of its programme, while the total adjustment for the programme up to end-2012 is expected to be close to 16 per cent of GDP. The other economies were similarly decisive in their implementation. Lithuania enacted measures equating to around 10 per cent of GDP during 2009 and 2010, roughly three-quarters of which took place in the first year. Estonia implemented virtually all of its consolidation measures in just a single year (2009), with these measures equivalent to approximately 7.5 per cent of GDP.

In all cases, the adjustments were expenditure led, partly reflecting broad preferences for low levels of taxation in these economies. In contrast with standard findings in the literature which suggest that better outcomes are associated with reduced expenditure on social transfers, Latvia actually increased unemployment assistance. This was from a low base however, with the state still spending roughly half the EU average on social programmes.[163] Aside from the increase in social transfers, a particular emphasis on current expenditure items was apparent in each of the adjustments. All three Baltic countries introduced major public sector wage reductions in the first year of fiscal consolidation covering both regular and bonus pay. The extent of unpaid leave was increased and staff levels were reduced. Likewise, subsequent nominal wage bill freezes were extended in later budgets.

Reductions in departmental budget allocations were also steep, while a reorientation of government investment funding helped to alleviate the burden on state finances. Latvian government investment moved towards an increasing reliance on EU funding. This provided some countercyclical relief without impacting negatively on government finances. Revenue-based measures were spared for the most part, and those that were implemented primarily took the form of indirect consumption taxes.

It should be noted that the experiences of the Baltic economies were far from painless. Although unemployment rates have fallen significantly from levels in 2010, unemployment rates for 2012 are approximately more than twice those that prevailed in 2007 prior to the crisis. Notwithstanding this, living standards in 2012 are still likely to exceed their respective pre-crisis peaks as a result of the rapid recovery (see Fig 10.1). The fact that Latvian and Estonian living standards remain well below the European average (see Figure 10.2) has been cited as evidence that the economy has more scope for catch-up because of the implied distance from the technology frontier (Blanchard, 2012).

Poverty measures are also worryingly high among the Baltic economies, with severe material deprivation reportedly almost 31 per cent in Latvia, 19 per cent in Lithuania and 9 per cent in Estonia in 2011 (see Figure 10.3).[164] These have

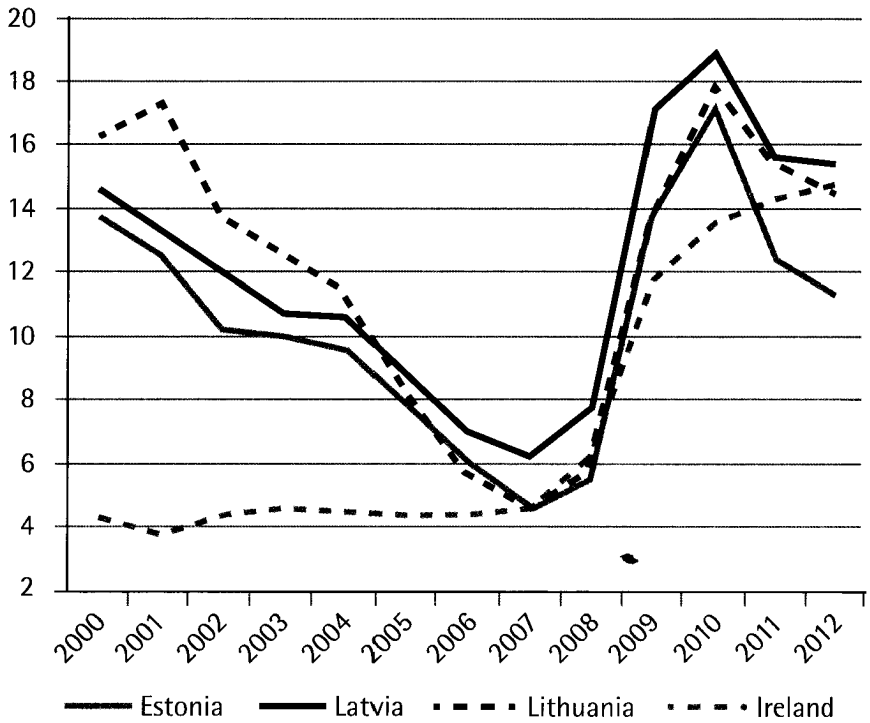
163 Lithuania also introduced changes in unemployment benefits resulting in increased access for those most disadvantaged by the crisis, although reduced levels of benefits were made permanent.

164 'Severe material deprivation' measures the proportion of the total population severely burdened by a lack of material resources.

increased from record lows in 2008 for each country. Interestingly, however, they do not differ substantially from the average shares visible prior to the 2008 trough, with the share in Lithuania actually 6.3 percentage points lower in 2011 than the average during the three years that preceded its record low.

Another area worth considering in terms of the differences between the Baltic economies experiences and the Irish fiscal crisis is the role of net migration. The case studies suggest that reduced transfer costs associated with net outward migration can reduce expenditure costs, provided that this primarily arises among unemployed people. Net outward migration has been a major feature of the adjustment period in each of the economies, with Lithuanian populations seeing the largest rise in emigration rates among the Baltic economies, almost four times greater than that prior to the adjustment period (see Figure 10.4).[165] The only episode to have not witnessed this type of deterioration was the Danish experience, which was unusual in that it involved a largely domestic demand-driven recovery, albeit one that proved to be short-lived.

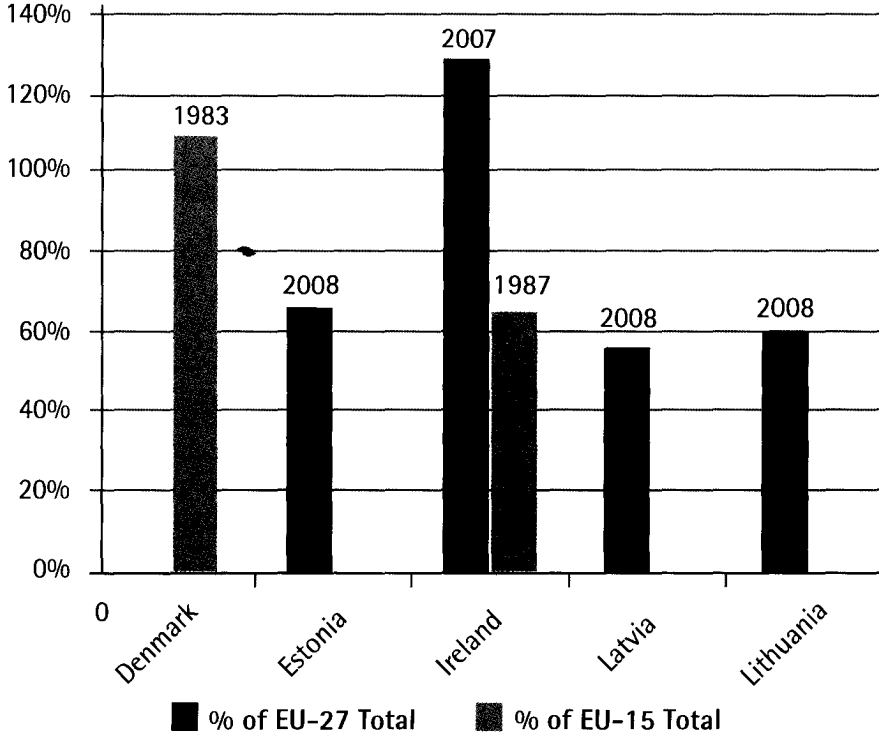
Figure 10.1: Unemployment



(% of total labour force)
Source: IMF and ESRI forecasts, 2012.

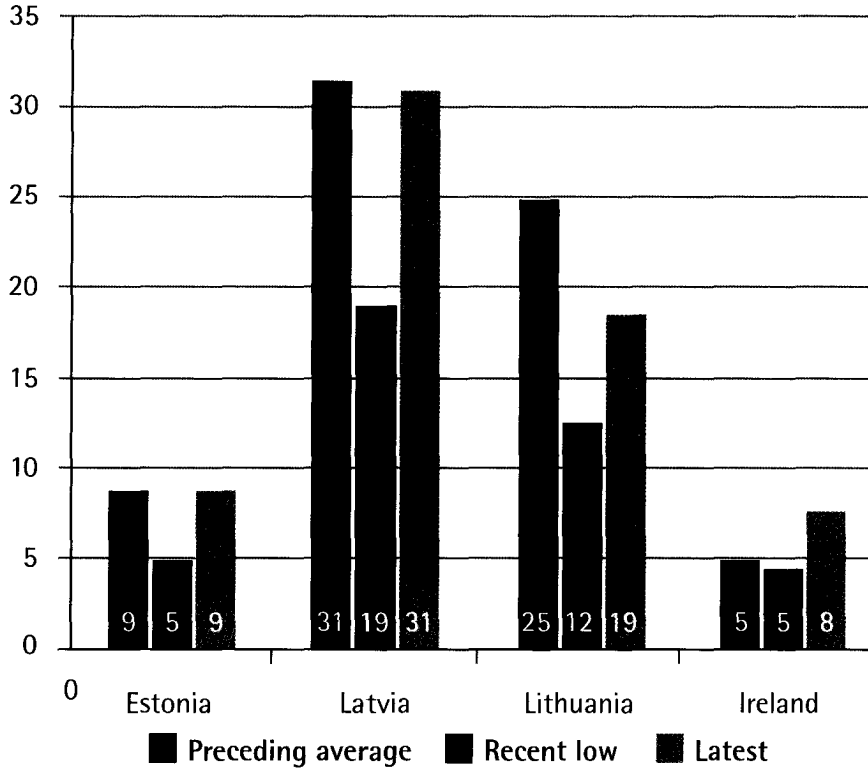
165 The IMF noted that Latvian emigration figures were likely to be much higher than official figures suggest (IMF, 2012c).

Figure 10.2: Gross national income per capita



(% of EU totals based on purchasing power standard per capita before episode began)
Source: European Commission AMECO database.

Figure 10.3: Severe material deprivation rates



(% of total population)

Source: European Commission AMECO database.

Source: Eurostat.

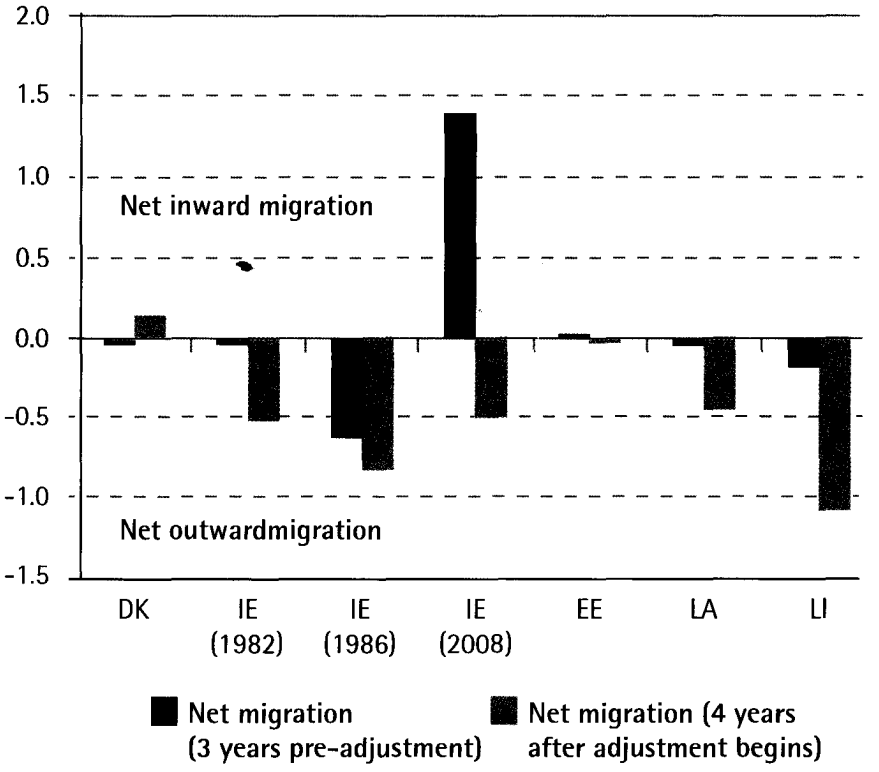
Notes:

1 Preceding averages are calculated over 2003–06 for Ireland, 2004–2007 for Estonia and 2005–2007 for others.

2 Ireland's recent low is 2007, others are 2008.

3 Latest data for Ireland are for 2010, the rest are for 2011.

Figure 10.4: Net migration in consolidation episodes



(Annual average as % of total population)
DK=Denmark, IE=Ireland, EE=Estonia, LA=Latvia, LI=Lithuania
Source: Eurostat.

LESSONS LEARNED

Some lessons can be drawn from the literature on fiscal consolidation episodes internationally and the case studies of relevance to Ireland's present situation. In particular, the evidence on the design of any fiscal consolidation appears quite conclusively to favour adjustments that focus on expenditure-based rather than taxation-based measures. Moreover, the emphasis on expenditure-based approaches in successful episodes supports reductions in current expenditure rather than capital expenditure, if the costs associated with fiscal consolidations in terms of economic growth are to be minimised.

Looking at the composition of the adjustments studied here, expenditure-led reductions were clearly a hallmark of each of the successful episodes covered. By contrast, the Irish episode of consolidation in the early 1980s, which was dominated by revenue-based measures, was notably unsuccessful. In terms of the average composition of adjustments (excluding the most recent adjustment period in

Ireland and the failed adjustment of 1982 to 1984), expenditure measures across the successful case studies examined here accounted for just over 65 per cent of the total measures implemented. The current Irish programme is expected to involve expenditure measures equivalent to 66 per cent of the total adjustment. As well as matching a broad preference in the wider literature for expenditure-led corrections, this ratio also closely matches specific compositions identified with other successful episodes. This ratio also holds regardless of the initial levels of taxation borne by the economies studied.

As identified by the broader literature, an emphasis on current expenditure items appears to be associated with better fiscal outcomes in each of the case studies – specifically, reductions in government wages and public sector numbers were key elements. Social programmes were also targeted in the successful case studies, except for some areas of Baltic economies' spending, an exception which must be seen in the light of their social programme spending lying far below the EU average at the onset of their adjustments. Ireland's social benefits, by contrast, had already risen substantially prior to the downturn and were at a relatively high level in 2008. The other item of current expenditure that was highlighted in the meta-analysis was government consumption and this was targeted in each of the successful case studies. The broad empirical research is somewhat ambiguous as to the intensity and duration of adjustment that is necessarily preferable in terms of growth outcomes. Interpretation of the case studies is also complicated by factors such as variations in the initial level of debt, the scale of the overall adjustment required, the timing of supplementary budgets, the scale of banking crises and other case-specific factors. Findings from the IMF (2012a) and Baum *et al.* (2012) suggest that upfront adjustments may be more suited in such cases where growth is above potential at the onset of the adjustment when considering the short-run impact, although growth outcomes over the long-run are estimated as being indifferent to intensity. Nevertheless, emphasis on short-run growth may be of more significance if policymakers are seeking to galvanise support for an adjustment programme in the early stages. This may be a useful avenue for further research. Similarly, it is likely that short-run considerations will be influential in relation to other factors that will determine the ultimate success of a consolidation programme.

Some authors have pointed to exchange rate devaluations as important for the success of fiscal consolidation episodes. However, in the broad literature, their association with successful fiscal consolidations is rarely statistically significant and, when it is significant, the relationship is often weak. In several cases, devaluation benefits are shown to be offset in real terms by subsequent increases in labour costs and continued price inflation. These factors are of particular relevance to highly open economies (Grennes and Strazds, 2012) and their effects were visible in the early Danish and Irish experiences.

The case studies used in this chapter seem to show that exchange rate adjustments are not necessary in order to achieve sizable annual improvements in

competitiveness, although the pace of adjustment is assisted by currency depreciations. Recoveries in competitiveness are achievable under internal devaluation style approaches, although the pace is slower, on average, than in the case of exchange rate devaluations.

Arguments that the benefits of internal devaluations can be overstated by large shifts in the sectoral composition of an economy are addressed by Darvas (2012). He shows that the overall impact of compositional changes on unit labour cost based real effective exchange rates is less significant than might be expected when sectoral compositions are held constant. In addition, compositional changes in other economies may also exist. These can offset competitiveness gains measured when holding sectoral weights constant. Furthermore, downward wage flexibility was clearly visible from the sizeable peak-to-trough declines in Latvia (17 per cent), Lithuania (12 per cent) and Estonia (5 per cent).

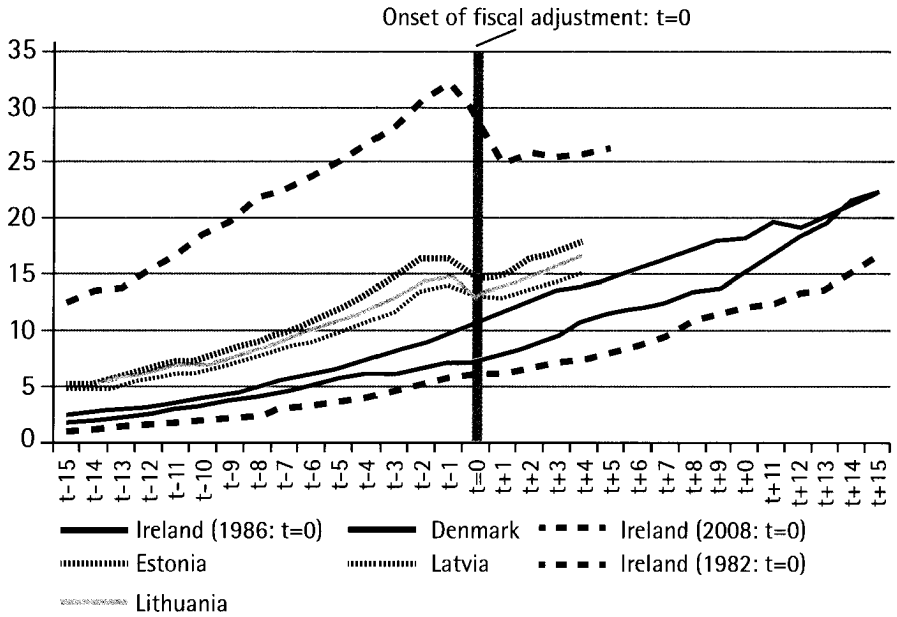
Another factor that emerges from the case studies examined here is the importance of a stable currency as a means of anchoring inflationary pressures and of eliminating exchange rate risk premia. Both factors were relevant in the earlier episodes, with Blanchard and Fischer (1990) noting that the Irish and Danish experiences in the 1980s both availed of real devaluations in advance of their fiscal stabilisation and that both countries fixed their currencies to the Deutschmark at the time of stabilisation. The anchor provided by stable exchange rate policies and the support provided by accommodative monetary policy regimes thereafter produced an environment in which high long-term interest rates were eased, thus facilitating an expansion in investment and consumption. If competitiveness has indeed recovered sufficiently to incentivise an expansion in FDI and to sustain an expansion in export activity in the coming years, then – following the lessons from previous episodes – the next obvious target is maintaining a credible commitment to a stable currency.

Insecurity relating to the possible break-up of the currency union has also meant that monetary policy has become increasingly less accommodative, despite relatively lower short-term interest rates being targeted by the European Central Bank. As noted by Simon *et al.* (2012), countries are unlikely to experience strong improvements in their debt ratios while real rates are high and while monetary conditions remain tight.

The scope for the resumption of growth in economic activity in each of the case studies is another area influencing the success of the fiscal consolidation. Recoveries in external markets and the likely presence of convergence effects played significant roles in this respect. For example, Ireland's adjustment in the late 1980s coincided with the 'Lawson boom' in the UK. The Baltic economies, by contrast, managed to stabilise their public finances in a less benign economic environment. However, it is worth remembering that the distance of these economies from the technology frontier at the beginning of the crisis implied a greater growth potential for aiding in the recovery. Ireland's implied distance at the onset of the late-1980s' experience was of a similar magnitude. Since the Irish

economy has now already converged with, and overtaken, living standards in other euro area economies, there are few potential benefits possible from reducing the gap from the productivity frontier. While experiences elsewhere show that recoveries in growth prospects do occur after episodes of fiscal adjustment, the potential for economic growth to recover on the basis of convergence effects and export demand is therefore more subdued at present (see Figure 10.5).

Figure 10.5: Gross national income per capita



(based on purchasing power standard, where t=0 is the year that the fiscal consolidation began)
Source: AMECO.

CONCLUSIONS

The recent rise in government debt is not unique to Ireland and is a phenomenon that requires very difficult choices and a great degree of political determination both here and internationally (Tanzi, 2010). In particular, it is clear that less palatable current expenditure reductions will necessarily form a substantial part of the adjustment required. Broad empirical research on multiple fiscal consolidations and more comprehensive analyses of individual episodes, similar to those in which the Irish economy now finds itself, indicate that adjustments focusing on areas of current expenditure have proved successful in stabilising the public finances, while minimising the damage to growth. If such measures are carefully implemented, the efficient delivery of services can be preserved while facilitating a

significant consolidation of the public finances, such that future growth prospects are promoted as much as possible.

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