



IRELAND

SELECTED ISSUES

March 2015

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March 10, 2015

Approved By

European Department

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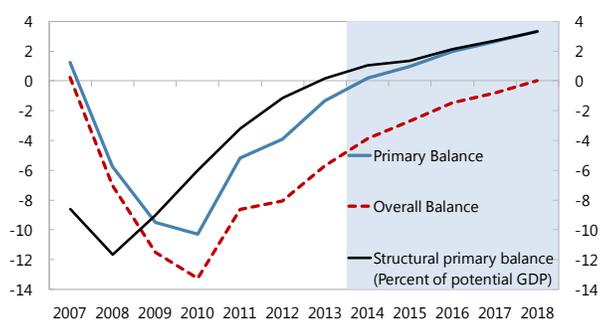
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TECHNICAL CHALLENGES IN IMPLEMENTING EU FISCAL RULES IN IRELAND

A. Introduction

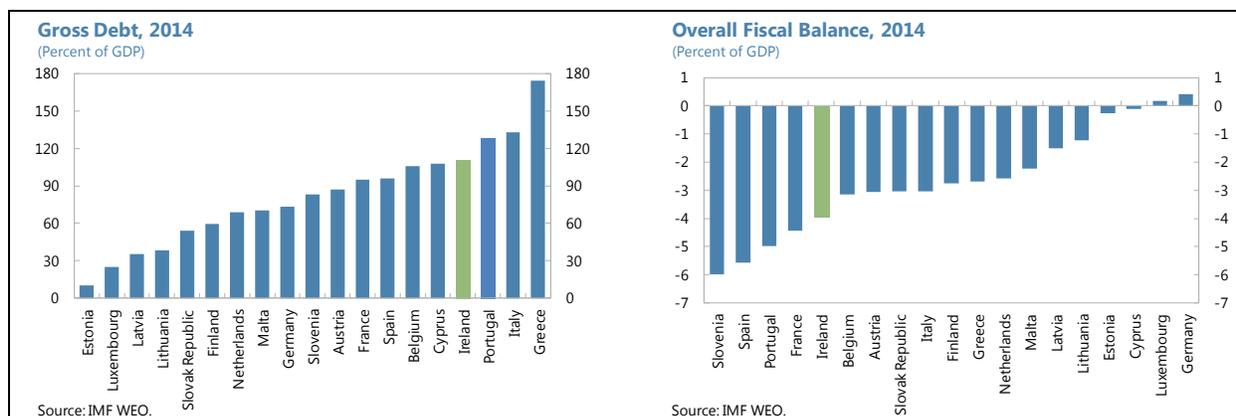
1. Ireland is expected to exit the Excessive Deficit Procedure (EDP) in 2015.¹ From a peak of 13.3 percent of GDP in 2010, the overall deficit was brought down to an estimated 3.9 percent of GDP in 2014. On staff estimates, this entailed consolidation effort totaling almost 16 percent of GDP over six years in 2009–14, generating an estimated improvement in the primary balance in structural terms of 13½ percent of GDP in that period. Solid revenue growth combined with restrained growth in primary spending and a decline in the interest bill is expected to bring the overall deficit below the 3 percent of GDP EDP ceiling in 2015.

Headline and Structural Balances 1/
(Percent of GDP, unless otherwise indicated)



Sources: Department of Finance; and IMF staff estimates.
1/ Excluding bank support. Structural primary balance also excludes one-off revenue and expenditure items.

2. Exiting the EDP does not imply Ireland's fiscal position is yet healthy. Irish gross (net) public debt is still estimated at be about 110 (92) percent of GDP at end 2014, one of the highest in Eurozone. Although leaving the deficit at about 3 percent of GDP need not imply a further increase in the debt ratio if nominal GDP growth averages 3 percent or more, the ratio would remain high, making Ireland vulnerable to shocks and limiting room for fiscal policy to cushion economic shocks. A higher fiscal balance is needed to put Ireland's public debt on a firmly downward path and rebuild fiscal space exhausted during the crisis.



¹ The [European Council Decision on Ireland's EDP](#) was adopted in December 2010. It approved a financial assistance program for Ireland and set out policy measures needed to restore fiscal sustainability and reduce government deficit to below 3 percent of GDP by 2015.

3. After exiting the EDP, Ireland’s overall fiscal policy stance will be guided by the preventive arm of the EU’s Stability and Growth Pact (SGP). The preventive arm sets a medium-term objective (MTO) for Ireland to reach a balanced budget on a structural basis, i.e., excluding cyclical and one-off factors. Ireland’s MTO is consistent with the broader goals of putting the debt ratio on a firmly declining path and rebuilding fiscal space. It is defined in structural terms to allow the automatic fiscal stabilizer to operate in response to temporary shocks.

4. Adjustment to the MTO will be guided by two fiscal rules that support a phased approach. Under the *Structural Adjustment Rule*, the structural balance should converge to the MTO by at least ½ percent of GDP annually, with some flexibility allowed depending on the initial level of the output gap and growth performance in a given year. Implementation of this rule requires assessments of the structural balance. Under the *Expenditure Benchmark*, growth in nominal spending (excluding some non-discretionary items) should be capped sufficiently below the rate of potential GDP growth until the MTO is reached. The progress towards MTO, including compliance with the *Structural Adjustment Rule* and the *Expenditure Benchmark*, will be monitored by the European Commission (EC) on the basis of their harmonised methodology as part of the European semester, and also by the IFAC under Ireland’s Fiscal Responsibility Law of 2012.

5. The practical implementation of these rules faces some Ireland-specific technical challenges. The rules are defined in structural terms, or take into account potential GDP growth, which has the advantage of taking cyclical factors into account. Nonetheless, in practice there are technical challenges in Ireland in estimating potential GDP, and hence output gaps, potential growth, and structural fiscal balances. The technical issues associated with measuring structural fiscal balances in Ireland have been widely recognized in the literature (see, e.g., Kearney et al., 2000; Bergin and FitzGerald, 2014; Kopits, 2014; [IFAC, 2014](#)).

6. This paper outlines some of the technical issues associated with implementation of EU fiscal rules in Ireland and suggests potential steps to address them. The Section B presents the EU fiscal rule framework in more detail and discusses monitoring of its compliance by the EC. Section C focuses on technical challenges in estimating potential output in Ireland. Finally, Section D outlines some options to address these challenges.

B. EU Fiscal Rules and Compliance Assessments

7. The MTO is the central element of the preventive arm of the SGP. It is simply the value of the structural balance the country should maintain on average in the medium-term to ensure a sustainable debt position and provide fiscal space for cushioning temporary shocks. The reference value of the MTO is country-specific and takes into account the level of public debt in relation to the SGP ceiling of 60 percent of GDP and future contingent liabilities related to demographic changes. The MTO is subject to revision every three years and cannot be less than -1 percent of GDP. For Ireland, the MTO is set at 0 percent of GDP. Defining the MTO in structural terms means that it is adjusted for the cyclical position of the economy and one-off and other temporary revenue and expenditure developments. It also means that fiscal policy can let automatic stabilizers operate fully to cushion temporary shocks.

8. Countries below their MTO, like Ireland, should converge to it in the medium term, while countries at their MTO should maintain it over the cycle. IMF staff estimates that in 2015 the structural balance in Ireland will be -2.3 percent of GDP, which is below its MTO. The EC estimates Ireland's 2016 output gap at 0.7 percent of potential GDP, placing it in "normal times". As set out in the recent [EC guidance note](#), in "normal times", annual fiscal adjustment must be at least 0.5 percent of GDP given Ireland's debt of over 60 percent of GDP. Using IMF staff estimates of an output gap of about -1½ percent of GDP, adjustment of 0.5 percent is required as projected growth of 3½ percent in 2015 is above potential growth. More detail on the two rules governing adjustment to the MTO is provided in Box 1.

	Condition	Required annual fiscal adjustment*	
		Debt below 60% and no sustainability risk	Debt above 60% or sustainability risk
Exceptionally bad times	Real growth <0 or output gap <-4	No adjustment needed	
Very bad times	-4 output gap <-3	0	0.25
Bad times	-3 output gap <-1.5	0 if growth below potential, 0.25 if growth above potential	0.25 if growth below potential, 0.5 if growth above potential
Normal times	-1.5 output gap < 1.5	0.5	> 0.5
Good times	≥ output gap 1.5%	> 0.5 if growth below potential, 0.75 if growth above potential	> 0.5 if growth below potential, 1 if growth above potential

*all figures are in percentage points of GDP

Box 1. EU Fiscal Rules for Adjustment to the MTO

Following the expected exit from EDP in 2015, Ireland's budgets will be guided toward the MTO by the following rules, which in principle are consistent via the convergence margin:

Structural adjustment: Minimum adjustment of 0.5 percent of GDP per year, until the MTO is reached:

- Structural adjustment is based on change in the overall balance at the general government level, excluding cyclical and one-off factors.
- Cyclical factors affecting the fiscal balance are adjusted for using output gaps derived based on the EU methodology.
- Flexibility in adjustment is provided when the output gap is large, as set out in the matrix above.

Expenditure benchmark: Nominal expenditure growth is subject to a ceiling, which can be raised by the amount of discretionary revenue measures.

- Coverage: total government spending net of interest expenditure, transfers to the EU, cyclical unemployment benefits, and the difference between capital spending and its 3-year average.
- Growth ceiling: *reference rate* of real potential GDP growth, minus the *convergence margin*, plus the average of Spring and Autumn GDP deflator growth projections by the EC.
- Reference rate: 10-year average of EC estimates of real potential GDP growth (using 5 years of historical estimates, the estimate for the year in question and 4-year ahead forecasts).
- Convergence margin: calculated as 50/primary expenditure-to-GDP ratio (1.4 percent for 2016). This margin ensures at least 0.5 percent structural adjustment per year until MTO is reached.¹
- Reviews: the reference rate and convergence margin are re-estimated every three years together with the MTO (next estimates will cover 2017–19).

¹ European Commission, (2013), "Vade Mecum on the Stability and Growth Pact," Occasional Paper No. 131 (Brussels).

9. Some illustrative calculations for Ireland may clarify the implications of these rules for expenditure growth and structural adjustment. In 2016, the two rules have somewhat different implications for adjustment largely owing to the relatively low reference growth rate in 2016:

Structural adjustment rule:

- From a projected overall balance of 2.7 percent of GDP in 2015, a minimum structural adjustment of 0.5 percent of GDP would require a somewhat larger decline in the fiscal deficit on a headline basis using IMF staff projections and estimates, as these imply a positive cyclical contribution to deficit reduction in 2016.
- In particular, IMF staff projects actual growth at 3 percent in 2016, and estimates potential growth at 2.2 percent, so the output gap narrows by 0.8 percent, which makes a cyclical contribution to the fiscal balance estimated at 0.2 percent of GDP.
- Hence a minimum overall deficit fall of 0.7 percentage points would be needed to comply with the rule on these estimates. As the interest bill is expected to decline by 0.2 percentage points of GDP, the primary balance would need to improve by 0.6 percentage points, of which 0.3 percent would be a structural improvement.

Calculations of the Structural Adjustment Rule for 2016

	2015	2016 1/
Overall balance (% GDP)	-2.7	-2.0
<i>Interest expenditure (% GDP)</i>	3.7	3.4
<i>Primary balance (% GDP)</i>	0.9	1.5
Structural balance (% pot. GDP)	-2.3	-1.8
Structural primary balance (% pot. GDP)	1.4	1.7
Output gap (% pot. GDP)	-1.4	-0.6
Change in overall balance (2015-16), of which:		0.7
<i>Change in structural balance, of which:</i>		0.5
<i>Change in interest spending</i>		0.2
<i>Change in structural primary balance</i>		0.3
<i>Cyclical effects/automatic stabilizers</i>		0.2

Source: IMF staff projections.

1/ 2016 column shows level of fiscal variables that is consistent with just complying with the structural adjustment rule.

Expenditure benchmark:

- In 2016, Ireland's reference rate for potential growth is 0.7 percent, which is well below the Commission's harmonized estimate of potential growth for Ireland in 2016 of 3.5 percent. This large deviation reflects to the 10-year average calculation which includes EC estimates of potential growth from the crisis years that are substantially negative.

- The benchmark limits nominal spending growth to 0.2 percent in 2016 taking into account the convergence margin and IMF projections for inflation in the GDP deflator (these are slightly lower than the Commission's estimate). Any additional spending above this limit would need to be financed through discretionary revenue measures.
- In practice, such expenditure restraint is estimated to imply structural adjustment on the order of 1 percent of GDP, which is 0.5 percent of GDP more than the minimum required under the *Structural Adjustment Rule*. Nonetheless, the implied primary structural adjustment of 0.8 percent does not appear unduly high.

Calculations of the Expenditure Benchmark for 2016

(Billions of EUR unless otherwise indicated)

Expenditure items	2015	2016 1/
Spending covered by benchmark 2/	63.1	63.2
Limit on growth in covered spending (%)		0.2
= Reference growth rate		0.7
- Convergence margin		1.4
+ GDP deflator growth		0.9
<i>Memorandum items:</i>		
Overall balance (% of GDP)	-2.7	-1.5
Change in overall balance (2015-16), of which:		1.2
Change in structural balance, of which:		1.0
Change in interest spending		0.2
Change in structural primary balance		0.8
Cyclical effects/automatic stabilizers		0.2

Source: IMF staff projections.

1/ The column for 2016 shows the level of fiscal variables that is consistent with compliance with the Expenditure benchmark.

2/ Adjusted for interest payments, EU programmes, the difference between current and past capital spending, and cyclical unemployment expenditures.

10. Compliance with the two fiscal rules will be monitored by the EC. Compliance with both the *Structural Adjustment Rule* and the *Expenditure Benchmark* will be monitored by the EC, covering both ex-ante plans and ex-post estimates. The assessments allow for some deviations from the rules within certain thresholds. In cases where one rule is complied with but not the other, an overall assessment would be made.

- **Timetable.** The assessments will be done every Spring on the basis of budgetary documents presented in the Stability and Convergence Program. Compliance in period t will be monitored in period t-1 (ex-ante), t (in-year), and t+1 (ex-post). Only the conclusions of the ex-post assessment can serve as basis for triggering a Significant Deviation procedure.

- **Thresholds.** Deviations from the *Structural Adjustment Rule* will be only be considered significant if their magnitude is at least 0.5 percent of GDP in a single year or at least 0.25 percent of GDP on average per year in two consecutive years (year $t + \text{year } t-1$)/2. Similarly, deviations from the *Expenditure Benchmark* rule will be considered significant if the excess rate of expenditure growth in relation to the permissible rate had a negative impact on the fiscal balance of at least 0.5 percent of GDP in a single year or cumulatively in two consecutive years.
- **Overall assessment.** Deviations from compliance with both pillars of EU rules can arise due to technical reasons, such as those discussed below. The final decision on compliance with the rules would take into account these technical factors.
- **Sanctions.** If an assessment of ex-post outturns is negative, then: (i) EC will issue a warning, (ii) within one month of a warning, the European Council will provide recommendations on necessary policy measures that a country should comply with within 5 months, (iii) in the absence of necessary measures, the country will be sanctioned to place a remunerated deposit of 0.2 percent of GDP (and sanctions can be strengthened later).

C. Technical Challenges in Estimating Potential Output in Ireland

11. Measures of potential output are key to the application of EU fiscal rules. The EC computes potential GDP based on production function approach according to a [common methodology](#), Havik et al. (2014). Estimates of potential GDP are needed for both fiscal rules:

- (i) **Expenditure Benchmark:** the reference rate of potential GDP growth drives the growth rate in spending under this rule. Estimates of potential GDP are used to calculate potential growth, with the reference rate being a centered 10-year moving average potential growth. These estimates are updated every 3-years.
- (ii) **Structural Adjustment Rule:** the output gap is the key variable for assessing the structural fiscal balance, and it also requires estimates of potential GDP. Unlike the Expenditure Benchmark, the Structural Adjustment Rule uses current estimates of potential growth. As evident in the illustrative calculations above, the differences in timing an review frequency can create non trivial differences in the fiscal positions needed to comply with each of the rules in the short-run.

12. Estimating potential GDP has proven to be challenging in Ireland. As illustrated in Box 1, the range of estimates for potential GDP produced by various agencies for Ireland is wide, implying notably different estimates for potential growth and output gaps. Estimates of potential GDP have also been subject to notable revisions over time, including by the IMF. These challenges reflect a combination of issues regarding Irish GDP data and the structure of the Irish economy.

Box 2. Potential GDP and Output Gap Estimates for Ireland

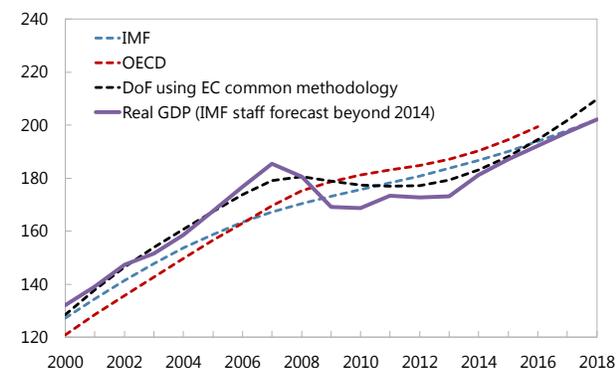
Three international institutions use standard methodologies yet produce significantly different estimates for potential GDP in Ireland:

- IMF staffs have used in recent years a standard Hodrick-Prescott filter with smoothing parameter of 200. The result is a rather smooth trend. Although part of the GDP collapse in 2008–10 could be considered structural given skill mismatches arising from the large number of construction sector workers that lost their jobs, this simple method makes no allowance for that possibility.
- The [EC](#) and the [OECD](#) use the widely applied production function approach. Yet their results are notably different, with the EU methodology producing a measure that tracks actual GDP more closely. There are many technical differences between these methods, but the most important appears to be the approach to estimate the level of equilibrium unemployment. In the EU methodology (NAWRU), equilibrium unemployment tracks actual unemployment quite closely, and even rises ahead of the crisis. In contrast, the OECD measure (NAIRU) is more stable, which would appear more consistent with Ireland’s low levels of employment protection and with the large unemployment fall in recent years.

These different measures of potential GDP imply quite divergent estimates of the output gap. The EU measure remains closer to zero throughout the period than either the OECD or IMF measures. The OECD output gap is persistently large and positive ahead of the crisis, and then persistently large and negative thereafter. While staff estimates the output gap to be around -3½ per cent in 2014, the EU method finds a closed output gap in 2014, and the OECD has a larger negative gap close to -5 percent.

Real Potential Output

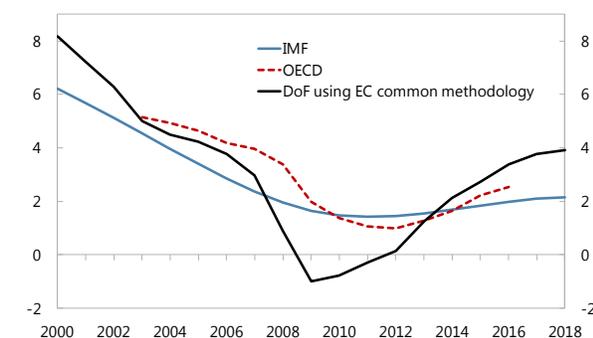
(Billions of 2010 euros)



Sources: OECD, Dept. of Finance, staff estimates.

Potential Output Growth

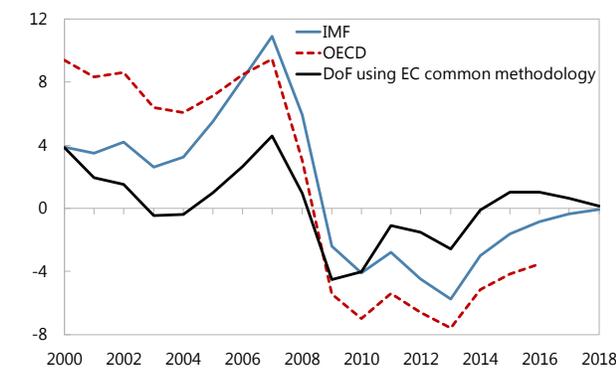
(Percent change, y/y)



Sources: Department of Finance, OECD ; and IMF staff projections.

Output Gap

(Percent)



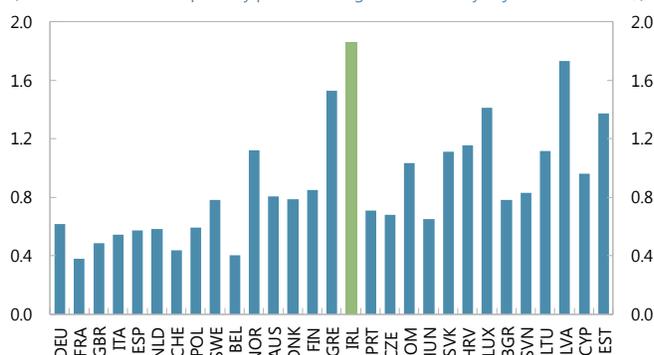
Sources: Staff projections, OECD, DoF, EC

13. Irish GDP data volatility and revisions make it difficult to assess the cyclical position of the economy in the short-run. Ireland's quarterly GDP growth data are among the most volatile of all European Union countries, more than twice the variability typically seen.

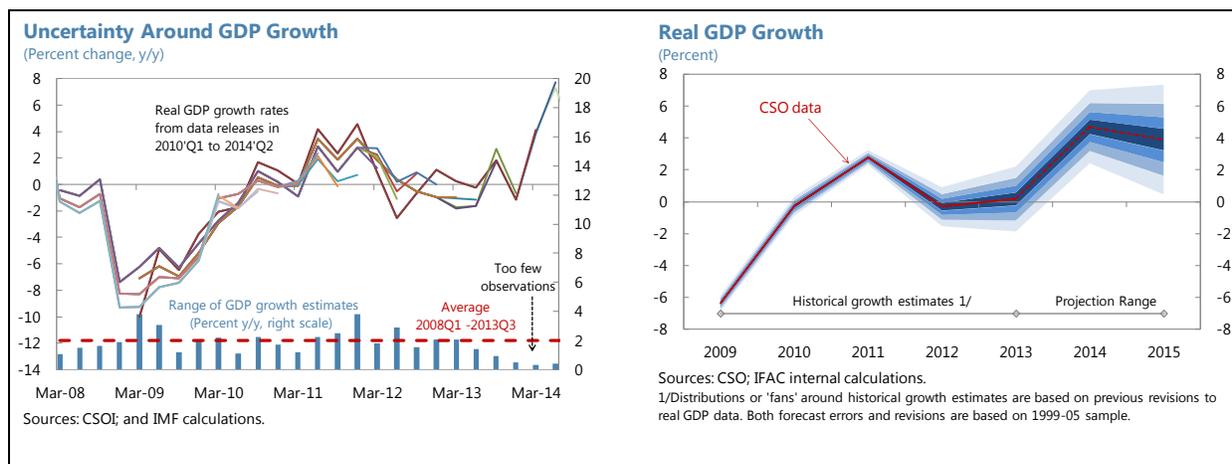
In addition Irish GDP data are produced with relatively long lags by EU standards, with final estimates for annual data not available until June-July the following year. At this time, annual growth rates can be revised substantially from that implied by preliminary data, such that the range of estimates for year-on-year GDP growth rates averages 2 percentage points over data vintages. The substantial uncertainty around historical data, not only projections, is reflected in the fan chart.

Volatility of GDP Data

(Standard deviation of quarterly percent changes in seasonally adjusted real GDP 1/)



Sources: Eurostat; and IMF staff calculations.
1/ Excluding the period between 2008Q4 and 2009Q3.

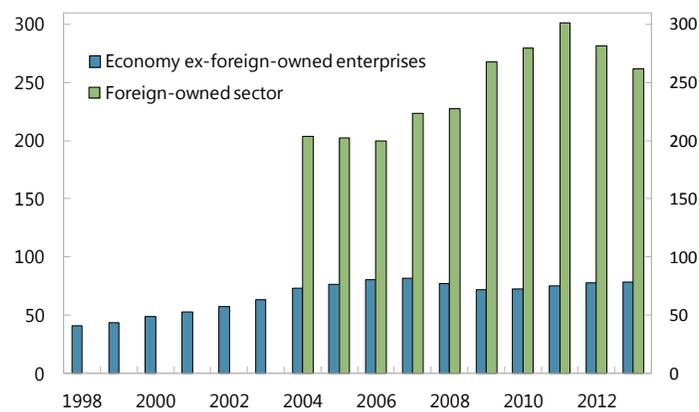


14. Some structural features of the economy complicate the assessment of Ireland's position in the business cycle:

- **Multinational enterprises (MNE) accounting for one-quarter of Irish GDP can vary their output substantially with little change in domestic resource utilization.** As shown in a recent [study](#), MNEs represent only 2.1 percent of the number in enterprises in Ireland but slightly over half of the value added in the business economy. MNE output swings, sometimes related to sectoral idiosyncratic shocks (e.g., the "patent

Labor Productivity

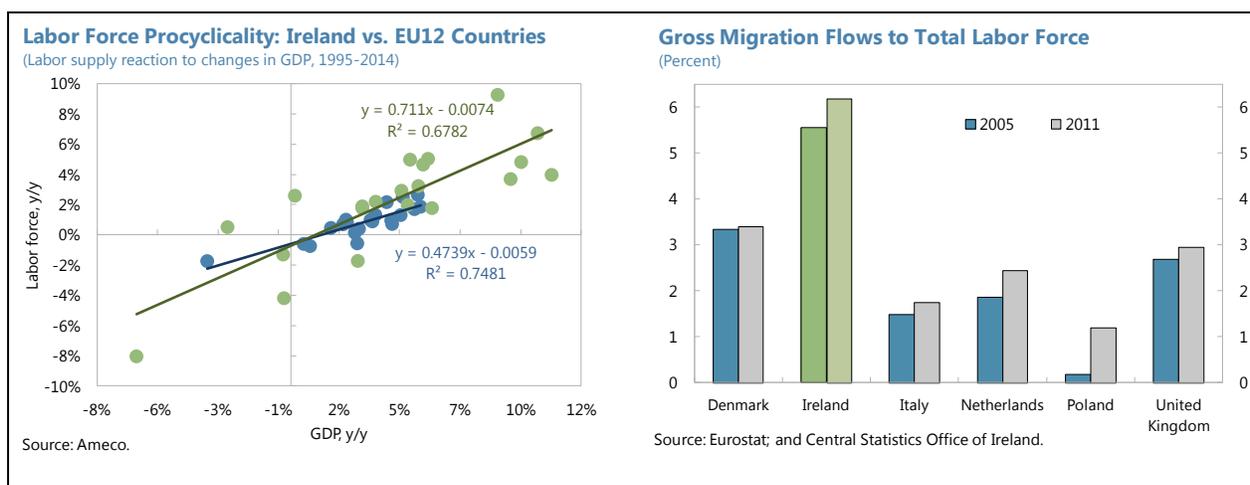
(Gross value added per worker, EUR thousands)



Sources: CSO; and Forfas.

cliff" in 2013, see Box 1, [Tenth Review Staff Report](#)), can occur with little apparent change in domestic resource utilization. The sharp increase in offshore contract manufacturing observed in 2014 is another example of such a shock (see Box 1, Article IV 2015 Staff Report). Such shocks to the productivity of the MNE sector may be best treated as shifts in potential GDP, because the result is a change in GDP without any significant change in resource tensions or slack in the economy.

- **The Irish labor force is highly procyclical.** Ireland's labor force reacts more strongly than other European countries to coincident changes in GDP. The history of close integration of the Irish labor market with the U.K. labor market makes net migration very sensitive to growth and unemployment differentials between Ireland and the U.K. Over the last decade the composition of migration flows has broadened with the enlargement of the European Union, but the broad pattern of sizable migration flows in response to changes in activity has continued. Such flows are large relative to the size of the labor force, at roughly double that of the Netherlands, another small and highly open economy. These large and procyclical changes to the labor force stemming from migration may move potential GDP significantly. A production function based approach, that explicitly allows for labor force fluctuations, has significant advantages in these circumstances. Yet there also a greater a need to ensure consistency between projections for GDP and those for migration and the labor force when making projections for potential GDP.



15. These difficulties in estimating potential GDP have implications for the implementation of EU fiscal rules:

- **Variations in the reference growth rate impact spending growth.** For the period 2014-16, the reference growth rate for Ireland is 0.7 percent. It is expected to be revised up significantly for the 2017-19 period, to perhaps about 2 percent. Hence in the first year that the *Expenditure Benchmark* is applicable, the room for spending growth is about 1¼ percent lower than in later years, equivalent to about 0.4 percent of GDP.
- **Ex post verification of the *Structural Adjustment Rule* may be hampered.** GDP data available in the Spring of the following year could initially have a sizable error, with a later

revision showing that the cyclical impact on the budget was smaller or larger than first estimated. As noted, GDP in Ireland is subject to sizable shocks to the productivity of the MNE sector. However, such shocks are found to have little implication for government revenues, which are driven by GDP excluding the value added of sectors dominated by MNEs (Annex 1). Cyclical adjustments to fiscal balances that don't allow for the composition of GDP shocks could therefore be inaccurate. Given such issues, adequate adjustment may be found when in fact adjustment was not sufficient, or insufficient adjustment could be detected where adjustment was in fact adequate.

D. Potential Approaches to Manage Technical Challenges

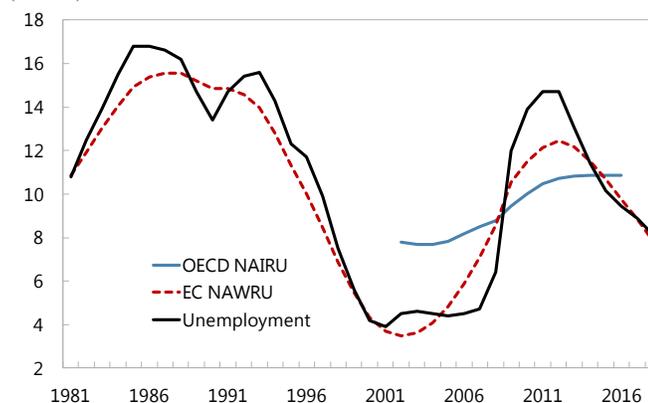
16. Adjustments in methodology for estimating potential output will only partially address the above challenges. The volatility and large revisions in Irish GDP data would remain, suggesting that assessments of compliance with the rules should wait a few months until final annual data are available. Nonetheless, refinements of the current EU methodology for estimating potential GDP for Ireland, as is currently being pursued by the Irish authorities, should also be developed and assessed with a view to producing measures of potential growth and output gaps that will enable the fiscal rules to better serve their purpose of guiding steady adjustment to structural balance.

17. Estimates of the labor factor in the EU production function for Ireland appear most in need of refinement:

- **Equilibrium unemployment estimates could be made more stable:** although the EU's production function methodology has the advantage of taking into account variations in labor supply due to migration (as opposed to simple filtering), the way it models equilibrium unemployment leaves little room for cyclical unemployment. Its estimate of equilibrium unemployment implies that unemployment swings are mostly structural, a finding not consistent with Ireland's flexible labor market.² As a consequence of equilibrium unemployment tracking closely actual unemployment, output gap movements are dampened, likely understating cyclical impacts on the budget.

Natural Rate of Unemployment

(Percent)



Sources: OECD, DoF, CSO

² In 2013, the [OECD](#) ranked Ireland the 2nd most flexible EMU country for employment protection and labor market performance behind Finland, at the 13th rank among the 43 OECD countries.

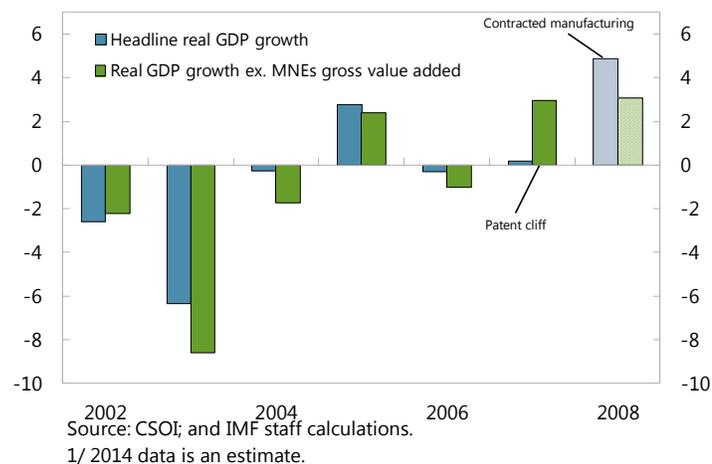
- **Population projections could be made more consistent with growth projections:** another refinement to labor factor estimates would be to better take into account the impact of growth on Ireland’s population projections. Medium-term population projections used by the EC to project potential output—as needed to estimate the reference growth rate—have extrapolated the migration outflows observed during the height of the crisis, with the resulting slow projected labor force growth tending to lower potential growth over the medium-term.

18. It would be appropriate to use alternative methodologies alongside the production function approach. For example, the [multivariate filter](#) technique enriches the traditional univariate filtering by using additional indicators to identify cycles in the economy. Such indicators traditionally include signals of demand-supply tensions like prices and wages. More recently, such methods are taking into account developments in asset prices and private credit, which could be particularly useful given Ireland’s boom-bust cycle.³ Given Ireland’s openness, the exchange rate could also be an important factor to take into account. For instance the euro appreciation against the British Pound was a significant contributor to the deflation observed in 2008–10. Unless this factor is controlled for, the extent to which there was a negative output gap could be overstated. Such an approach could also allow the possibility to consider the potential for a negative shock to potential GDP during the crisis, for example, owing to skills mismatches which may ease over time with migration flows.

19. The effectiveness of either of the above approaches could potentially be enhanced by taking into account the large role of MNEs. Swings in the value added of MNEs contribute substantially to variations in Irish GDP. Yet such swings are not found to have a significant effect on revenues (Annex 1). This suggests that, for the purpose of adjusting the fiscal position for cyclical factors, it may be advantageous to focus on developments in GDP excluding sectors dominated by MNEs.⁴ In principle, both the production function and multivariate filter

approaches can be applied to this sector of the economy. An example of a univariate filtering approach applied to this sector is provided in Box 2. Even if output gap methodologies do not

Real GDP Growth (Percent)



³ Forthcoming WP, “Steady as she goes—estimating Potential During Financial Boom and Busts”, Berger, et al.

⁴ An alternative to this approach would be to account for the different revenue elasticity on MNEs’ GVA in the aggregate fiscal semi-elasticity parameter applied to the output gap in the European Commission approach.

themselves allow for the sectoral composition effects, it will be important to consider these in the event that an overall assessment of compliance with the EU fiscal rules is necessary.

20. Timely data on sectoral GDP on a quarterly basis is important. The sectoral breakdown of gross value added covering the sectors dominated by MNEs is currently published with a long lag relative to aggregate GDP. The CSO has indicated its intention to release such data together with Quarterly National Account releases in 2015. This would have broader benefits for assessing underlying macroeconomic developments in Ireland and would be of particular value in estimating potential GDP under any methodology in order to facilitate more reliable cyclical adjustments to fiscal balances.

Box 3. Estimating the Output Gap Excluding Sectors Dominated by MNEs

Multinational enterprises (MNEs) play a large role in the Irish economy. They are also partly behind the volatility of Ireland's macroeconomic data: owing to their concentration on pharmaceutical products and information technology, MNE exports can fluctuate widely with idiosyncratic shocks faced by these sectors at the global level. In addition, the fragmentation of the global supply chain observed within large international groups can impact GDP in Ireland (e.g. contracted manufacturing, see Box 1 in Article IV 2015). Given the very high productivity of firms in this sector, significant swings in their production can occur with a relatively muted impact on employment and on the rest of the economy.

In 2011, the CSO started producing gross value added data with a breakdown by 37 sectors. There are three sectors where foreign ownership of companies exceeds 80 percent, and they account for a quarter of gross value added.

<i>Table 1: composition of the foreign-owned multinational enterprise dominated sectors</i>	Share of 2011 GVA in percent
Chemicals and chemical products, basic pharmaceutical products and pharmaceutical preparations	10.1
Software and communications sector	10.2
Other NACE sectors dominated by Foreign-owned MNEs*	5.0
Total of foreign-owned MNE dominated sectors	25.3

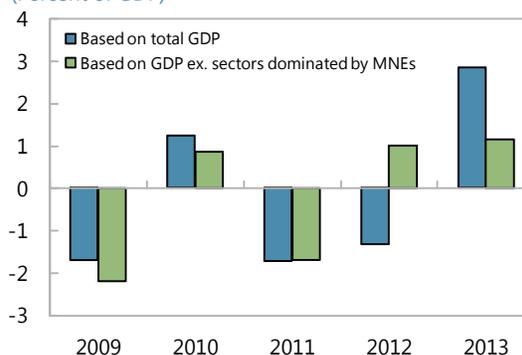
*Reproduction of recorded media, Computer, electronic and optical products, Electrical equipment, Medical and dental instruments and supplies

The gross value added excluding the sectors dominated by MNEs behaves quite differently from aggregate GDP in some years. For example, in 2013 it grows by 3 percent at a time when official GDP data were flat. This performance is more consistent with the strong 2.5 percent y/y growth in employment in 2013. Developments in the output gap excluding sectors dominated by MNEs tend to be much less volatile in recent years.

The result is that measures of structural fiscal adjustment become more plausible. For example, on the basis of aggregate GDP growth, estimates of structural fiscal balance show little adjustment in 2014, despite consolidation effort of some 1½ percent of GDP in Budget 2014. In contrast, preliminary calculations based on a gap excluding MNE dominated sectors show significant adjustment of almost 1 percent of GDP. Fiscal adjustment estimated excluding MNE-dominated sectors is also more consistent with the trend in bottom-up calculations of consolidation effort based on budgeted fiscal measures.

Change in output gap

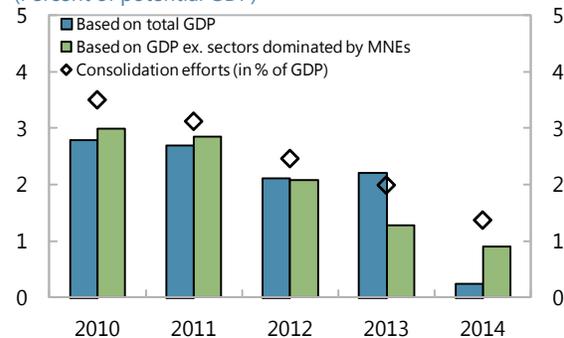
(Percent of GDP)



Sources: CSO; and IMF staff calculations.

Change in Structural Primary Balance

(Percent of potential GDP)



Sources: CSO; and IMF staff calculations.

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Annex I. Tax Revenues and GDP Excluding Sectors Dominated by MNEs

The regressions below estimate the link between tax revenue and different components of GDP, highlighting in particular the differences between headline GDP and a measure of economic activity stripping out the value added generated by sectors where foreign ownership exceeds 80 percent as determinant of tax revenues. Regressions (2) and (5) show that changes in GDP excluding sectors dominated by MNEs can better explain revenue growth than changes in headline GDP (1) and (4). Regressions (3) and (6) indicate that changes in the gross value added of sectors dominated by MNEs have no statistically significant impact on revenues.

Modeling Tax Revenues with GDP and GDP excluding Sectors Dominated by MNEs

Independent variables:	Dependent: Δ Revenue 1/			Dependent: Δ Revenue / GDP _{t-1}		
	(1)	(2)	(3)	(4)	(5)	(6)
Δ GDP 2/	0.4332*** (9.2)					
Δ GDP excluding GVA of MNEs		0.4592*** (14.4)	0.4593*** (14.2)			
Δ GVA of MNEs 3/			0.0092 (0.1)			
Δ GDP / GDP _{t-1}				0.3662*** (7.3)		
Δ GDP excluding GVA of MNEs / GDP _{t-1}					0.4500*** (12.8)	0.4454*** (12.1)
Δ GVA of MNEs / GDP _{t-1}						0.0359 (0.216)
Constant	-1,009* (-1.9)	-416 (-1.2)	-432 (-1.0)	-0.44 (-1.0)	-0.23 (-1.0)	-0.27 (-1.0)
Observations	18	18	18	18	18	18
R-squared	0.859	0.920	0.920	0.808	0.872	0.872
Root mean squared error	1682	1268	1309	1.388	1.134	1.168

Robust t-statistics in parentheses (***) $p < 0.01$, ** $p < 0.05$, * $p < 0.1$)

1/ Revenue refers to general government tax revenues and social contributions, net of the estimated impact of discretionary revenue measures.

2/ Annual nominal GDP

3/ Strictly speaking, this is GVA of three sectors dominated by MNEs.

DIVERSIFYING IRISH FINANCING SOURCES

A. Introduction

1. **This note examines options to develop non-bank financing for Irish enterprises.** First, it looks at the structure of the financial sector and its ability to serve the needs of domestic firms. Second, it discusses pros and cons of developing the non-bank financial sector. Finally, it looks into two specific examples of non-bank financing: investment funds able to make loans to firms and Real Estate Investment Trusts (REITs). The analysis presented here indicates that both initiatives have a prospect of increasing the flow of funds to the economy, though the relatively tight regulation of the investment funds should be kept under review. Clearly, there are many other non-bank financing alternatives that are not explored here but may prove to be a viable option for Ireland, including closed-end mutual funds, private equity firms, SME securitizations, or mini or covered bonds.

B. Corporate Sector Financing in Ireland: Sources and Potential Risks

2. **Ireland has a large and internationalized financial sector but many firms serve mostly international clients.** In 2013, total assets of the Irish banking system stood at 635 percent of GDP, similar to the UK levels. However,

banks operating within the International Financial Services Centre (IFSC)⁵ accounted for more than half and their business links with the rest of the Irish economy were limited to servicing some of the biggest multinational corporations. Ireland is also a home to one of the biggest investment fund industries in Europe, which, in 2013, had assets of over 1200 percent of GDP. These funds, however, also operate within the IFSC and service mostly foreign clients. The Irish stock exchange is similar in size to that of other euro area countries, being notably smaller than in the UK or the US, and is not a major source of corporate funding.

Financial Markets Overview
(Percent of projected 2014 GDP, June 2014)

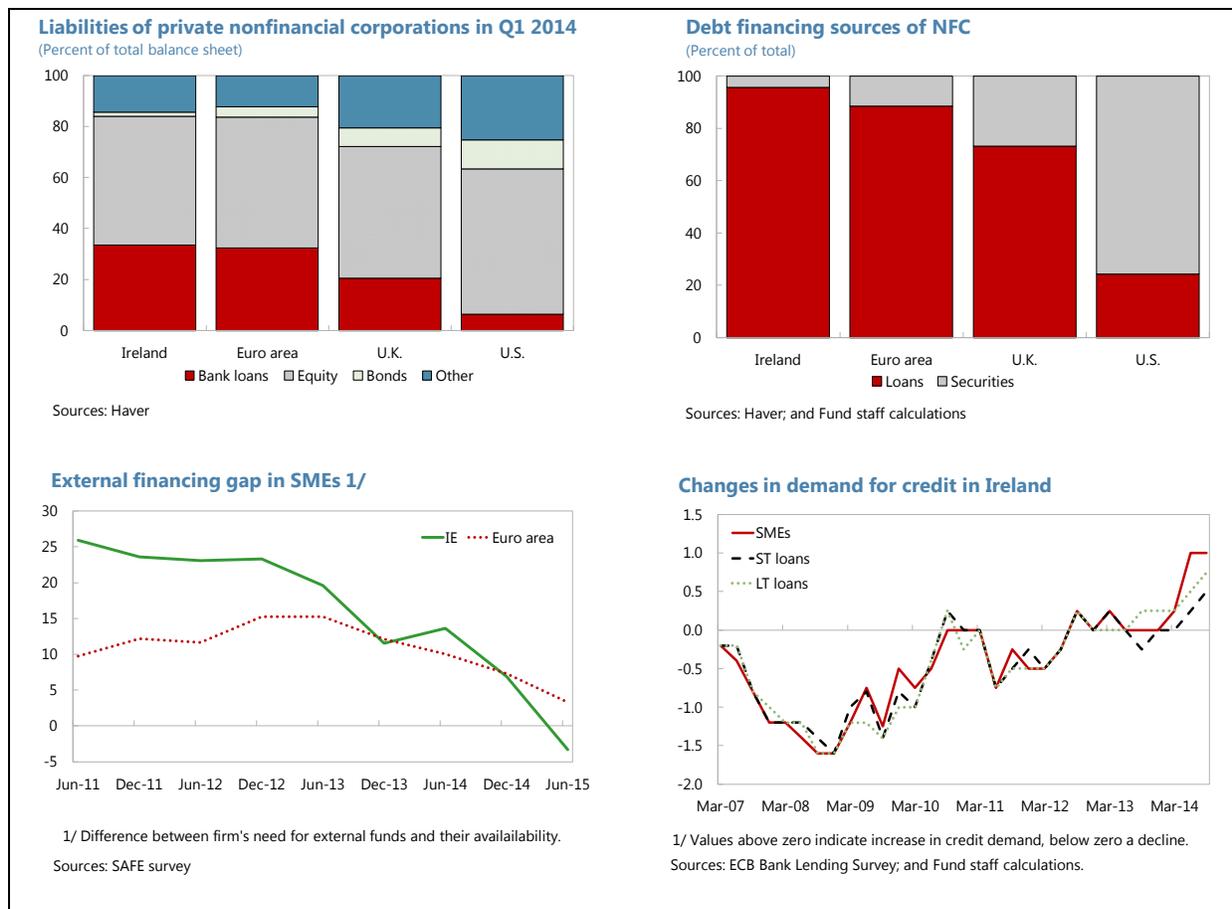
	Ireland	EA	UK	US
Banks				
Total assets 1/	606	353	600	95
Investment funds				
Total assets 1/	1242	109	325	205
Pension funds & ins. corporations				
Total assets	171	88	232	243
Stock market				
Total capitalization	63	56	117	148
Memo items				
GDP (bln euro)	183	9,776	2,848	12,858

Sources: BIS; IMF WEO; Haver Analytics; National central banks; World Federation of Exchanges; and IMF staff calculations and projections.

1/ Irish data is as of end-2014Q1.

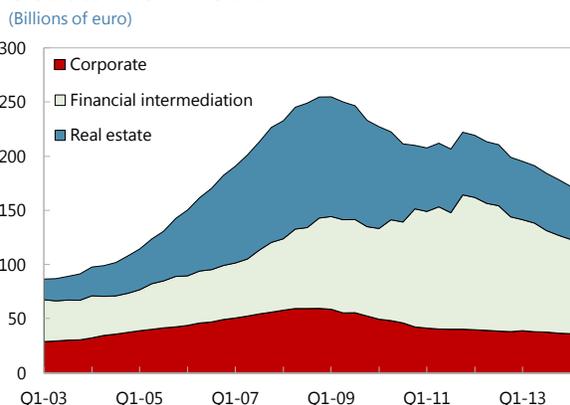
⁵ The IFSC comprises of a broad range of financial institutions including banks, insurance companies, investment funds, and other support firms, which provide financial services mostly to non-residents.

3. **Financing of Irish firms comes mainly from banks while access to market financing remains limited.** Bank loans account for around a third of total liabilities of non-financial corporations (NFC), a level similar to that of the euro area but much higher than in the UK or the US (see also [Lawless et al., 2013](#)). Debt funding is almost exclusively comprised of bank loans, a stark contrast to the US where close to ¾ of debt is sourced from the financial markets. At the same time, Irish firms' ability to finance investment on the financial markets is limited. Despite a [significant increase](#) in bond issuance in Europe in the recent years, only the largest NFCs have access to the bond market, and this also holds for Ireland ([Lawless et al., 2014b](#)).



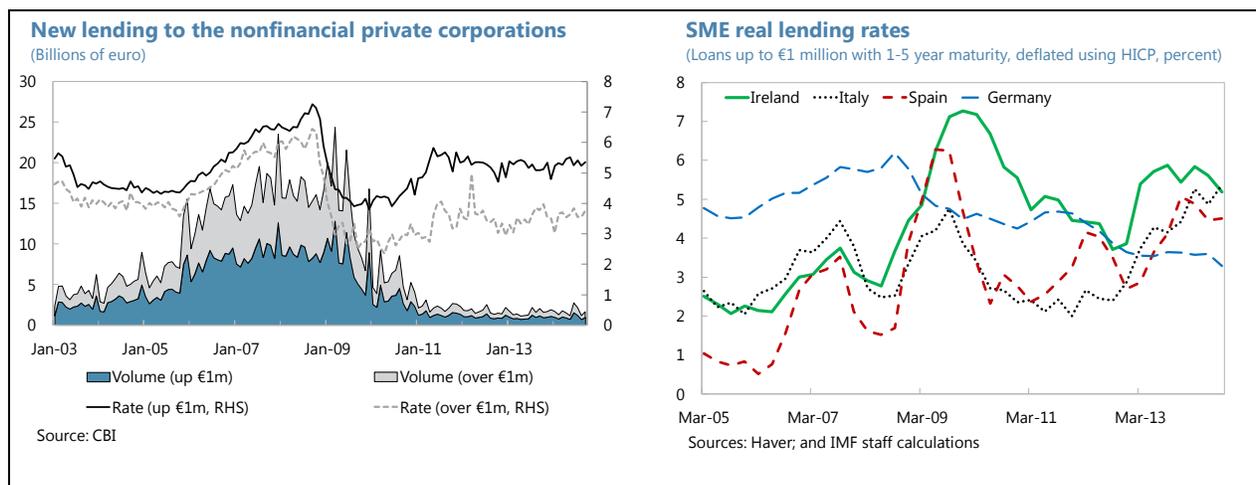
4. **The Irish banking sector is currently recovering from a massive crisis which was followed by a large contraction in loans to NFCs.** Total corporate credit declined over 40 percent from the December 2008 peak. If loans for real estate and financial intermediation purposes are discounted, credit to other sectors fell almost by half. In part, the balance sheet contraction could be explained by the transfer of around €74 billion of real

Credit to NFC in Ireland



estate loans to the National Asset Management Company over 2010-11 as well as mandated deleveraging of non-core portfolios following the [2011 Financial Measures Programme](#). Moreover, the economic crisis reduced loan demand and repayments of existing credits continue to exceed new lending since mid-2009.

5. **This weak credit activity persists despite signs of economic recovery.** The Irish economy returned to growth in the first quarter of 2014 and is expected to expand around 4¾ percent in 2014 and 3½ percent in 2015. Nonetheless, gross lending continues to contract. In particular, the volume of new loans below €1 million, often used as a proxy for SME lending, remains very low and their interest rates are significantly higher than for other types of credit and also above those in Germany in real terms (though close to other periphery countries). Irish SMEs do not report financing constraints at the moment—they are able to finance investment from retained profits—but this is likely to change once the recovery takes hold. [Lawless et al., 2014a](#) estimate the demand for NFC credit at around 40 percent of GDP in the long-term (compared to around 37 percent in Q3 2014), but with smaller share of property-related lending than during the pre-crisis years.



6. **New prudential regulation of the banking sector and market conditions may limit expansion of corporate credit in the future:**

- **Liquidity rules may increase bank funding costs:** Deposit rates are currently low, but they could potentially rise in future if demand for credit were to outpace deposit growth. This tendency could be reinforced by the [Net Stable Funding Ratio](#) (NSFR) requirement, which assigns lower stable funding weights to short-term wholesale funding (on which Irish banks relied heavily during the credit boom) and corporate deposits. This may trigger competition for retail and SME deposits ([Gobat et al., 2014](#)), increasing funding costs for banks.
- **Capital requirements may steer banks away from lending to NFCs:** Basel III capital adequacy rules that are being phased in will require banks to hold increasingly more capital against their risk weighted asset portfolio. There is a risk that banks, in order to preserve existing capital, may choose to lend in categories that carry lower risk weights, like residential mortgages—assigned risk weights as low as 35 percent under the EU Capital Requirements Directive—rather than

extending credit to nonfinancial corporations, where the minimum risk weight in certain categories (like unrated companies, which encompass most SMEs) has been set at 100 percent.

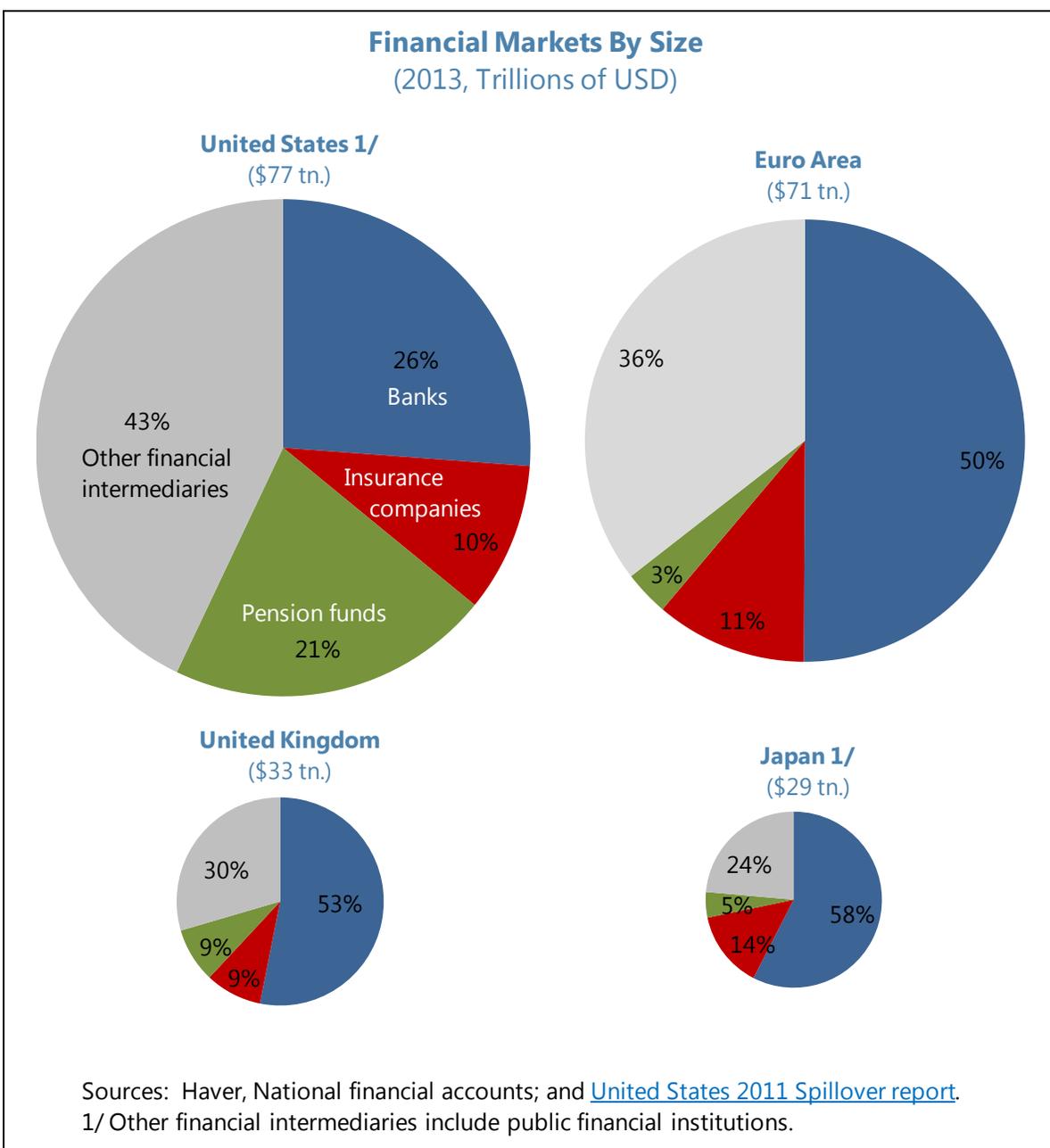
- **Loan securitization is underdeveloped:** Securitization markets in Europe are relatively small and concentrated in only a few countries, and securitization of SME loans is particularly lagging. In 2013, the market for securitized loans in Europe stood at around €1.5 trillion, but only about €120 billion was accounted for by SME-based securities. As noted by [Al-Eyd et al. 2014](#), expansion of the securitization market could increase funding available for SME loans by releasing banks' liquidity and capital for new loans as banks are incentivized to clean up their existing loan portfolio. In addition, it would also help repair the monetary transmission mechanism and improve the allocation of capital between deficit and surplus economies.
- **Credit assessment skills to evaluate SME loans may be lacking in banks:** Although lending to non-financial private sector has increased almost three-fold during the boom, the majority of loans were extended for real estate and construction, i.e. for heavily collateralized loans. Moreover, with the onset of the crisis came a significant increase in nonperforming loans and banks had to divert significant resources to arrears resolution rather than origination of new credit. As a result, banks may need to (re)acquire skills needed to evaluate non-real estate types of investment, which is likely to take time. By Q3 2014, the Credit Review Office (CRO)—established in 2009 to review cases where NAMA-participating banks refused credit applications by SMEs—has [overturned](#) banks' decisions in just above half of the concluded cases (though banks have no obligation to extend credit based on CRO's recommendation).

7. **Yet, ensuring that firms, in particular SMEs, are able to finance investment in the medium-term will be crucial to sustaining the recovery.** In Ireland, SMEs mostly serve the domestic market and account for only around a quarter of all exports. However, they make up 99.8 percent of all enterprises, employ around $\frac{2}{3}$ of all workers, and account for 46 percent of total value added. In addition, over 90 percent of firms are micro enterprises, employing less than 10 workers (see [Lawless et al., 2012](#)). Given their employment intensity, proper functioning of the SME sector will be crucial for the continued growth of the Irish economy.

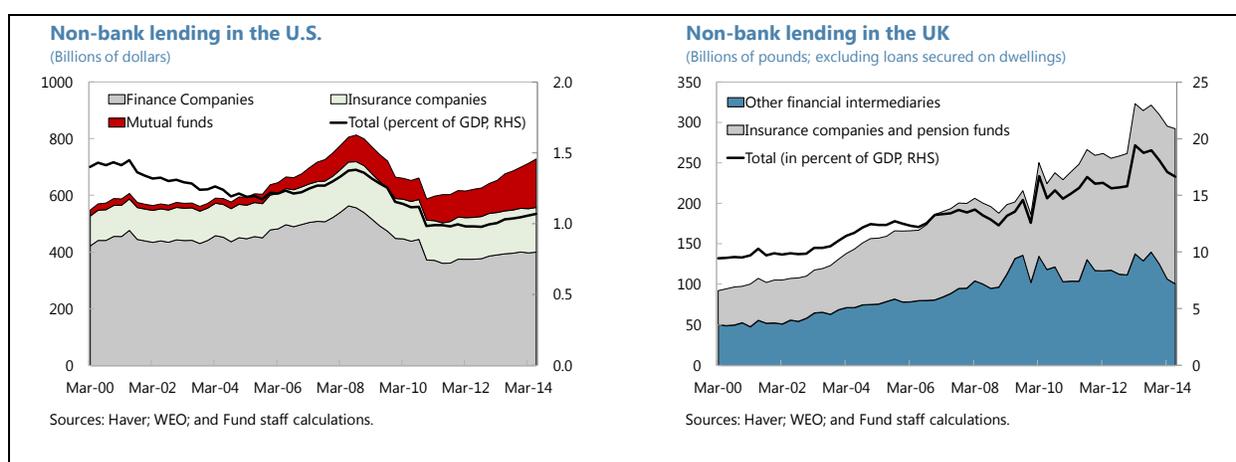
8. **Given the aforementioned constraints existing in the banking sector, development of alternative sources of financing should be explored.** Various non-bank structures are used to finance SMEs around the world. These include microfinance organizations, mini-bonds, venture capital funds, insurance corporations, investment funds originating loans, and Real Estate Investment Trusts. This note looks at the last two options in the Irish context, noting that many other solutions could be explored to help secure funds to firms operating in Ireland.

C. Pros and Cons of Non-Bank Financial Intermediation

9. **Non-bank financial intermediation constitutes a significant part of the international financial sector.** Shadow banking—as it is often known—encompasses financial intermediaries that conduct bank-like functions (credit, maturity, and liquidity transformation) without access to public sector support either in the form of central bank liquidity or deposit insurance ([Pozsar et al., 2010](#), [Claessens and Ratnovsky, 2014](#)). As noted by [GFSR, 2014b](#), shadow banking makes up around a quarter of total financial intermediation, and its assets have been increasing in several jurisdictions—most notably in the UK and the emerging economies—since the onset of the 2007 financial crisis. In an international context, however, non-banks constitute a majority of the financial system only in the United States; other jurisdictions continue to be dominated by banks.



10. **Non-bank intermediaries can usefully complement the traditional banking sector.** A diverse range of entities is included here, like money market funds, mutual funds, hedge funds, finance and business development companies, securitization vehicles or repo operations. These firms can increase efficiency and innovation of the financial system by originating, funding, servicing, and trading loans extended both to traditional bank clients (as done by the US finance companies, see [Pozsar et al., 2010](#)) but also to groups that may be excluded from the traditional banking services, especially in the emerging markets (like non-bank finance companies in India ([Sinha, 2013](#)); see also [Gosh et al., 2012](#)). Well structured non-bank intermediation can result in a greater diversification of risks and increased competition ([Carney, 2011](#)) as well as deeper market liquidity and improved risk sharing and maturity transformation ([Claessens et al., 2012](#)). During the recent financial crises non banks provided long-term financing to firms when the banking sector was deleveraging and repairing their balance sheets ([GFSR, 2014a](#)).



11. **Yet, they can also pose risks to the rest of the financial sector.** Non-bank intermediaries can contribute to the creation and propagation of systemic risk and may make the risk more difficult to contain given the size of these institutions, their interconnectedness with the rest of the financial system, cross-jurisdictional nature ([Sinha, 2013](#)), and less information that is available on them compared to the traditional banking sector. As noted by [Adrian, 2014](#); [FSB, 2013](#); [GFSR, 2014b](#) these risks include: (i) *liquidity risk* arising due to maturity transformation that could translate into a risk of runs, being more severe as no regulatory liquidity backstop exists for non-banks; (ii) *arbitrage risk* with the banking sector given that the regulation of non-banks is often lighter--banks could also be encouraged to shift their activities off balance sheet; (iii) *risk of spillovers* to the rest of the financial sector through ownership and liquidity linkages, especially in the event of runs and flight to quality; and (iv) *risk of leverage and pro-cyclical money creation* due to no limits on borrowing that some (though not all) nonbanks enjoy. That, in turn, could lead to money creation and amplify business cycle fluctuations but be more difficult to control and regulate than it is for banks.

12. **Authorities around the world are therefore predominantly moving towards tighter regulation of most of shadow banking activities.** Supervisors are facing a difficult task of regulating the sector to ensure its stability while maximizing benefits to the rest of the economy. Extensive work on designing new rules is being carried out around the world, including for money market funds (rules for conduct of transactions, diversification, liquidity, capital buffers),

securitization (“skin in the game” rules for appropriate risk retention), repo and securities financing (new rules on reporting and transparency), and regulation of other shadow banking entities (new directive on Alternative Investment Fund Managers (AIFM)) among others—see Annex 2.4 of [GFSR 2014b](#) for a comprehensive summary. While the pace of implementation differs across countries, it mostly results in a tighter regulatory environment. New rules will also apply to interactions between banks and shadow banks, including banks’ large exposures and capital requirements on equity investments in funds.

13. **It has also been recognized, however, that non-banks should not be regulated in the same way as banks.** As noted by [Hakkarainen, 2014](#), non-banks are not covered by the same state and central bank guarantees as banks; regulating the former as the latter may result in a “halo effect”, i.e. expectations that shadow banks implicitly enjoy access to state-funded safety nets when in fact they do not. Such a perception could weaken market discipline and put pressure on the state in the event of a crisis. A credible communication strategy is crucial to ensure that market participants understand which entities are covered by the state guarantees and which are not. It is also important to protect the banking system against spillovers by limiting interconnectedness with non-banks, as this is critical to their credible exclusion from the safety net.

14. **In the recent years new non-bank structures have emerged in Ireland, aiming to improve corporate financing, although it will take time to evaluate their impact in full.** First, [Budget 2013](#) introduced Real Estate Investment Trusts (REITs). REITs are a well-known vehicle for investing in property (residential or commercial). Second, in October 2014 the Central Bank of Ireland (CBI) has allowed a subset of investment funds to originate corporate loans (in Ireland and elsewhere in Europe). The latter move was made with the aim of improving access to finance by Irish non-financial enterprises given the contraction of the flow of credit from the banking sector following the financial crisis, as the Central Bank considered that its previous outright prohibition on funds originating loans was inappropriate. REITs have enjoyed significant investor interest since their inception and a first loan originating fund has been authorized by the CBI.

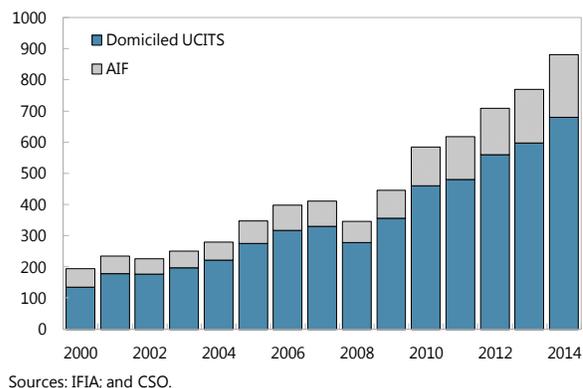
D. Alternative Financing No. 1: Loan Origination by Investment Funds

15. **Lending to firms by funds or asset management companies is already taking place in Europe.** In the UK, [asset management companies](#) associated with insurance providers or operating on a [stand-alone basis](#) entered the market for corporate lending. As a result, already in 2013 insurers and pension funds initiated around £35 billion or 8 percent of total corporate loans in the UK. The Italian government is considering measures that would allow insurance companies to extend corporate credit. In Germany, the savings banks association created an SME loan fund—though the main aim was to achieve risk diversification for the association members. In the Netherlands, a loan fund is being set up by one large bank in cooperation with several insurance companies (see [Kraemer-Eis et al., 2014](#), for details on schemes in various European countries).

16. **The fund management industry has a strong foothold in Ireland, though funds mostly manage nonresidents’ assets.** At end October 2014, funds domiciled in Ireland managed over €1.6 trillion in assets, equivalent to 880 percent of Irish GDP. Over $\frac{3}{4}$ of these assets belong to funds

directed at retail investors, denoted Undertakings in Collective Investment in Transferable Securities, UCITS (UCITS)—see Box 1 on regulation of investment funds in Europe. The professional investors' funds (Alternative Investment Funds (AIF)) presence is smaller—just over €370 billion—though it is still very significant compared to the size of the domestic economy. Even though Ireland's GDP accounts for less than 1.5 percent of the EU economy, around 15 percent of capital invested in both UCITS- and AIF-type structures is managed from there due to the low corporate tax rate, the existence of numerous double taxation treaties, and agglomeration effects stemming from the large presence of financial services firms that operate within the IFSC.

Assets managed by investment funds in Ireland
(Percent of GDP)



17. **In October 2014, the Irish authorities [allowed](#) investment funds to provide loans to non-financial corporations.** This development has been motivated both by the need to develop alternative sources of financing for both the Irish and European enterprises in light of the retrenchment in bank lending. This is a new development, also within Europe, given that investment funds have been banned from loan origination either at the European level (for UCITs) or directly by the CBI (for AIFs). Given the potential for a limited credit flow from banks to drag on investment and hinder the pace of the recovery, investment funds could open new channels of financing, especially for intermediate and large SMEs that are yet too small to access bond markets (see [Central Bank of Ireland](#), 2013, chapter 2).

18. **To guard against risks to the financial sector, the CBI put comprehensive regulations in place.** Introduction of new rules has been preceded by a thorough consultation process, with CBI issuing two discussion papers in [2013](#) and [2014](#), as well as [answers](#) to the industry's [feedback](#) on the two papers. The new [AIF Rulebook](#) notes that to operate as loan originating fund, the entity will have to fulfill the following requirements:

- **Fund structure:** loan originating fund (LOF) will only be allowed to attract capital from institutional investors, i.e. it can operate only as an Alternative Investment Fund. This is in line with the pan-European ban on loan origination by retail UCITS funds.
- **Portfolio strategy:** LOF will only be allowed to engage in loan origination, participation, and in operations directly arising from the two, and be prohibited from pursuing other investment strategies. To limit portfolio concentration, exposure to any one issuer or group will have to be limited to 25 percent of fund's net assets. Portfolios will also need to be diversified.
- **Loan origination and acquisition:** LOF will only be permitted to originate loans to nonfinancial corporations. Loans are explicitly forbidden to natural persons, to certain related parties (like fund management companies), to other funds, to other financial institutions or their related companies. Funds will be able to acquire loans originated by other institutions, but only under

specific conditions, including retention of at least 5 percent of the nominal value of the loan by the originator, to ensure “skin in the game”. This rule will not apply to syndicated loans.

- **Liquidity and distribution rules:** LOF will only be able to operate as closed-ended fund and for a finite period. This requirement, stemming from the likelihood of maturity mismatch between fund’s assets and liabilities, aims to limit the risk of runs that could occur in the event of negative news, forcing the fund to recall or sell loans with adverse effects.
- **Leverage:** LOF cannot have gross assets that exceed 200 percent of their net asset value.
- **Stress testing:** The LOF will be required to develop stress testing procedures aiming to identify macroeconomic conditions that could negatively affect fund’s credit exposure. Results of the stress testing are to be reported at least quarterly to the board.

19. **These comprehensive rules will greatly contain risks from LOF to the financial sector, yet they should be monitored to ensure that they do not unduly constrain investor interest.**

The regulations adopted by the CBI for loan originating funds aim to address the main risks (mentioned earlier) that could result from the expansion of shadow banking, and are in line with the recommendations of the European Systemic Risk Board. With one loan originating fund authorized to date, it is clear that the regulations do not prevent interest to establish funds, nonetheless, there is a risk that some of these rules could unduly increase funds’ operating costs or otherwise reduce investor participation:

- **Restrictions on leverage.** The CBI established leverage limits, as high leverage can lead to asset encumbrance thus limiting the amount available to investors in the event of bankruptcy, and also to limit money creation (given that loans are being recycled as new deposits). Leverage limits may, however, put LOF at a disadvantage. Leverage limits appear to be much stricter than it is the case for banks where the capital ratio is set at 8 percent of risk-weighted assets. Banks, it is important to note, are a source of contingent liabilities to the government through their holdings of deposits, while funds are not. Moreover, LOF are only open to professional investors, who, it is assumed, are able to monitor and evaluate their risk exposure, including that arising from leverage. It could also be explored if risks to the financial system would not be addressed more efficiently by regulating banks’ exposures to the LOFs.
- **Asset diversification.** While the LOF understandably has to devote resources to establishing credit assessment and monitoring procedures, it may be in investors’ best interest that it diversifies its portfolio by acquiring other assets, especially debt securities. The fund may also want to acquire equity stakes in companies, in addition to making loans. Such restrictions on investment strategy have not been imposed on commercial banks. To protect investors, requiring clear disclosure of fund’s investment strategy may be sufficient. Alternatively, regulation mirroring the solution proposed for the European Long-Term Investment Fund could be adopted, limiting assets other than loans to 30 percent.

- **Stress testing requirements.** The CBI regulation appears to align stress testing of LOFs with that of banks, prescribing at least monthly exposure stress testing of principal market risk factors and at least quarterly multifactor stress testing. While ensuring proper risk management is paramount, funds differ from banks in terms of risks they pose to the rest of the financial sector. While banks take deposits—and are subject to runs in times of stress, often necessitating costly public sector bailouts—LOFs are closed-ended, opened to professional investors only, and have no access to public sector support. The EU Directive regulating AIF requires only regular and appropriate stress tests of each investment position and of liquidity, without specific prescriptions on frequency. It could also be beneficial to specify procedures that a LOF needs to follow if the stress tests unveil a specific risk.

Box 1. Regulation of Investment Funds

At present, two major types of investment funds operate in Europe. The UCITS are the most common, managing €7.8 trillion in assets as of Q3 2014. They are regulated through a European [Directive](#), with rules on transparency, risk management practices and liquidity that aim to protect retail investors. UCITS are only allowed to invest in so-called transferable securities like stocks, money market instruments, financial derivatives, or units of other funds while investment in assets like real estate is forbidden. UCITS funds can only operate as open-ended, meaning that investors can redeem their shares at any time and in general directly from the fund rather than from other shareholders, with the price depending on the fund's net asset value. UCITS are not allowed to originate loans. Upon establishment in one EU country, UCITS can be freely marketed in another based on the passporting rules.

Alternative Investment Funds cater to institutional investors. Since July 2013, they are governed at the European level by the [AIF Managers Directive](#) (AIFMD) which, in contrast to the UCITS, regulates not the funds themselves but the entities that provide risk or portfolio management services to them, and fund depositaries. The directive imposes rules on managers' transparency, business conduct, reporting, and remuneration but does not regulate funds' investment strategy or legal structure. AIF can only be offered to professional investors (as defined by the [Markets in Financial Instruments Directive](#)) i.e., those deemed to have expertise in financial markets that allows them to properly evaluate risks and returns on investment. Upon authorization, the AIFMD are allowed to market funds to professional investors across the EU and to manage AIF domiciled in another member state through the passporting system. Based on the new regulation, AIFs can now register in Ireland with the potential to originate loans both domestically and elsewhere in Europe (based on the passporting system).

20. **A broad pan-European regime for loan origination would be a welcome development.** The initiatives of the Central Bank have stimulated a discussion amongst European policy makers on the need for a consistent framework for European alternative investment funds to originate loans. A well-planned regime could support the financing needs of the economy while protecting investors and mitigating systemic risk. With the advent of [European Long-Term Investment Funds](#) (which

offer loan origination in restrictive circumstances) and the announcement of the [Capital Markets Union](#), it would be beneficial if such a regime could be developed in due course.

E. Alternative Financing No. 2: REITs

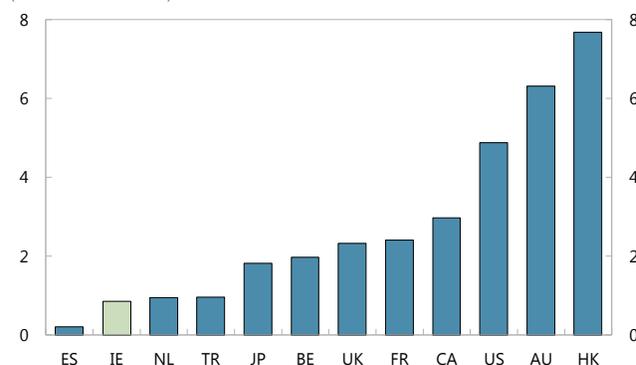
21. **Real Estate Investment Trusts (REITs) provide a liquid and diversified instrument to invest in real estate.** REITs are companies that derive their income from owning and operating real estate, including office buildings, apartment complexes, and hotels. By purchasing REIT shares investors can, therefore, gain exposure to the real estate market without the need to directly acquire properties. REITs are often listed on stock exchanges, but some countries allow operations of other forms of REITs. Established in their current form in the United States in 1960 (though operating already since 1800s), REITs became popular in many countries, including the UK, Japan, Hong Kong, Singapore, and Australia. The value of REITs' assets continues to grow, with capitalization in the twelve biggest jurisdictions approaching €1 trillion.

22. Several features distinguish REITs from other forms of corporate real estate ownership.

First, REITs must derive a majority of their income from real estate, and most of this income must be passed directly to shareholders in the form of dividends. Second, REITs' income is exempt from the income tax at the corporate level: it is the shareholders who pay income taxes on the received dividends. By that construct, REITs resemble mutual funds in that they pass their income directly to shareholders. Third, leverage limits are usually put in place to ensure that the majority of generated income is not spent on debt service.

Market Capitalization of REITs

(Percent of 2014 GDP)



Sources: Bloomberg; and IMF WEO.

23. **REITs were introduced in Ireland in 2013.** Four REITs have been established since, [raising](#) €1.56 billion in capital by mid-2014. In addition, one London-based company also operates in Ireland, and—although not a REIT—has also invested heavily in Irish property. They follow diverse strategies, with three targeting mostly commercial real estate, one the hotel sector, and one residential property. Their organizational structure reflects international practice:

- **Legal form:** REITs have to be listed on the stock exchange in one of the EU member states to ensure transparency of accounts and availability of timely information to investors.
- **Asset composition:** at least 75 percent must be in a form of rental properties, REIT must own a minimum of three rental properties, none of which can be worth more than 40 percent of the total portfolio.

- **Income:** at least 75 percent must come from rental property business. REITs are required to distribute each year at least 85 percent of the property income to investors.
- **Leverage limits:** any debt cannot exceed 50 percent of the market value of the assets. In addition, REITs must maintain a property financing cost ratio of 1.25:1 (ratio being defined as a sum of property income and financing costs to property financing costs).

24. **REITs structure can be advantageous to the investors.** First, as noted above, REITs allow investors to diversify their portfolio and obtain exposure to the property market without the need to invest in the property itself. As shown by [Boudry et al., 2011](#), returns on REITs and on direct investment in properties are correlated, especially in the long-term. Such diversification comes at a much lower cost (price of a share) compared with a substantial capital outlays needed to purchase the real estate itself. Second, the investment is liquid since shares can be traded on the stock exchange. Finally, shareholders are not personally accountable for REITs' liabilities as this responsibility lies with the REIT itself. At the same time, they benefit from the professional management of the properties.⁶

25. **REITs could also bring benefits to the Irish economy as a whole:**

- **Residential property market:** Given the [reported](#) shortage of residential properties, especially in the Dublin area, new developments financed by REITs could increase the supply of quality rental housing. These properties would be professionally managed by long-term investors in contrast to the mostly "mom-and-pop" rental operations that are currently prevalent. Potential tenants would benefit from greater security of tenure, and such a solution would also encourage mobility, a crucial factor to enable workers (including foreign) to move to areas with available jobs. This is especially important given Ireland's young and diverse population, which, as international evidence suggests, is often associated with higher demand for rental housing ([OECD, 2011](#)). Greater supply of quality rentals could help keep property prices in check and allow for better matching of housing demand and supply.
- **Commercial property market:** Yields on commercial real estate in Ireland stood close to 6 percent in Q4 2014, and have declined rapidly in recent years as prices of office space rebound with vacancy rates have falling from 20 percent to 15 percent. While a revival of office construction appears to be emerging, an increased supply of properties financed by REITs would help keep rents and property prices from escalating.

⁶ It is important, however, to differentiate between equity REITs discussed here and mortgage REITs or mREITs, i.e. companies that provide mortgages to real estate owners and buy mortgage-backed securities (mostly agency-based). Given that mREITs use short-term repo funding to invest in long-term securities, they are subject to a wide array of risks including contagion, asset fire sales, and market liquidity rollover, and have an ability to negatively influence the wider MBS market, as recognized by the [October 2013 GFSR](#).

- **Banking sector stability:** Diversification of real estate financing away from banks could help protect financial stability by increasing equity buffers. As the recent crisis manifested, credit-fuelled property development can lead to an escalation of prices, a deterioration of credit underwriting standards in banks, and a rapid increase in NPLs, which then become a liability of the state. With REITs passing gains or losses directly to investors, and with their leverage limited to half of their assets, lenders enjoy large equity buffers, greatly limiting the risk that the public sector would be called upon in the event of another property price collapse. These gains could be reduced if banks become heavily exposed to REITs through their lending operation; while overall leverage limits should limit that possibility, this link should be monitored by the supervisory authorities.

26. **While Ireland has thus far introduced only equity REITs, caution would be needed if proposals to introduce mortgage REITs appear.** While equity REITs invest directly in real estate and generate their income either from rents or from selling properties, mortgage REITs use short-term funding to invest in long-term assets (mortgages or mortgage securities). As noted by [October 2013 GFSR](#), due to their high leverage and dependence on short-term repos, mortgage REITs are vulnerable to fire sales, where higher interest rates cause increase in spreads, which in turn lead to higher repo margins, triggering the sale of assets by REITs, with spillover effects to other parts of the financial system.

27. **If necessary, the authorities may consider revisiting some of the taxation aspects of REITs.** At present, if an existing company decides to convert into a REIT, it may be liable for a capital gains tax of 33 percent on the difference between the property value at the time of original acquisition and the time of conversion to a REIT. While this aspect has not been deemed problematic thus far—all REITs in Ireland have been newly created, and additionally property prices are currently recovering from a big slump—it may be worthwhile to keep track of this issue in the future. In the UK, for example, a 2 percent conversion (or entry) charge—payable on the amount of total assets—was abolished in the [2012 budget](#).

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