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# Notes

1. The permission of the Government has been obtained for the use in this Bulletin of certain material compiled by the Central Statistics Office and Government Departments. The Bulletin also contains material which has been made available by the courtesy of licensed banks and other financial institutions.
2. Unless otherwise stated, statistics refer to the State, i.e., Ireland exclusive of Northern Ireland.
3. In some cases, owing to the rounding of figures, components do not add to the totals shown.
4. The method of seasonal adjustment used in the Bank is that of the US Bureau of the Census X-11 variant.
5. Annual rates of change are annual extrapolations of specific period-to-period percentage changes.
6. The following symbols are used:

e	estimated	n.a.	not available
p	provisional	. .	no figure to be expected
r	revised	–	nil or negligible
q	quarter	f	forecast
7. As far as possible, data available at early-November 2009 are included in the Statistical Appendix (Section 3).
8. Updates of selected Tables from the Statistical Appendix, concerning monetary and financial-market developments, are provided in *Monthly Statistics*. Data on euro exchange rates are available on our website at [www.centralbank.ie](http://www.centralbank.ie) and by telephone at 353 1 2246380.

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## Forecast Summary Table

	2007	2008	2009(e)	2010(f)
<b>Real Economic Activity</b>				
(Percentage Change)				
Personal Consumer Expenditure	5.9	-1.0	-7.5	-3.0
Public Consumption	6.9	2.6	-1.0	-3.0
Gross Fixed Capital Formation	2.3	-15.5	-30.5	-18.4
<i>of which:</i> Building and Construction	-0.8	-15.5	-33.8	-22.9
Machinery and Equipment	13.9	-15.4	-20.0	-8.0
Exports of Goods and Services	8.6	-1.0	-2.5	1.4
Imports of Goods and Services	5.6	-2.1	-9.1	-2.2
Gross Domestic Product (GDP)	6.0	-3.0	-7.0	-1.0
Gross National Product (GNP)	4.4	-2.8	-11.3	-2.0
<b>External Trade and Payments</b>				
Balance of Payments Current Account (€m)	-10,124	-9,435	-5,914	-2,982
Current Account (% of GNP)	-6.3	-6.1	-4.5	-2.4
<b>Prices, Costs and Competitiveness</b>				
(Percentage Change)				
Harmonised Index of Consumer Prices (HICP)	2.8	3.1	-1.7	-1.1
<i>of which:</i> Goods	1.5	2.9	-4.1	-2.3
Services	4.4	3.4	1.2	0.4
HICP Excluding Energy	2.7	2.6	-1.0	-1.7
Consumer Price Index (CPI)	4.9	4.1	-4.5	-1.3
Nominal Harmonised Competitiveness Indicator (Nominal HCI)	2.8	4.5	0.9 <sup>a</sup>	n.a.
Compensation per Non-Agricultural Employee	4.5	4.0	-2.9	-2.8
<b>Labour Market</b>				
(% Change Year-on-Year)				
Total Employment	3.6	-1.1	-8.0	-3.8
Labour Force	3.8	0.8	-2.1	-2.0
Unemployment Rate (ILO)	4.6	6.3	11.9	13.5
<b>Public Finances<sup>b</sup></b>				
(% of GDP)				
General Government Balance	0.3	-7.2	-11.7	-11.6
Government Debt	25.1	44.1	64.5	77.9
<b>Technical Assumptions<sup>c</sup></b>				
(Annual Average)				
EUR/USD Exchange Rate	1.37	1.47	1.39	1.44
EUR/GBP Exchange Rate	0.68	0.80	0.89	0.90
Oil Price (\$ per barrel)	72.7	97.7	61.8	80.3
Interbank Market — Euribor <sup>d</sup> (3 month fixed)	4.3	4.6	1.23	1.01

a Based upon the annual change in the average nominal HCI for the first eleven months of 2009.

b Department of Finance.

c The technical assumption made is that exchange rates remain unchanged at their average levels in end-December. Oil prices and interest rates are assumed to move in line with the futures market.

d Euribor is the rate at which euro interbank term deposits are offered by one prime bank to another, within the euro area. Daily data from 30 December 1998 are available from [www.euribor.org](http://www.euribor.org).

## Comment

The pace of decline in economic activity has moderated significantly since last Spring. The economy appears to be close to the trough of the downturn in output terms, although some weakness will persist into the first half of this year, and there are likely to be further employment losses. Recovery, when it emerges, is likely to be gradual and modest. Unwinding the imbalances created during the boom years will continue to be a drag on economic activity for some time, suggesting that a broadly based recovery will take some time to emerge. A solid start has been made, especially in budgetary measures, but recovery will also be contingent on making further progress in overcoming the budgetary and broader economic and financial challenges that Ireland faces. A reversal in wage competitiveness losses will also be key: given the declining price level during 2009 this necessarily entails some nominal wage reductions, as are already being implemented in parts of both public and private sectors.

Although data for the final quarter of 2009 is not yet available, aggregate income in the economy is estimated to have declined by around 11 per cent last year in GNP terms, following a decline of just under 3 per cent in 2008. Carryover effects, and the likelihood that weakness in economic activity may continue into the first half of this year suggests that a further annual average contraction of around 2 per cent is in prospect for 2010 as a whole. However, compared to the corresponding period of 2009, positive growth, on an annual basis, is expected to return from the second half of this year, and on a full-year basis in 2011. Growth next year is likely to be moderate, however, perhaps in the range of 2½ to 3 per cent. Part of the steep decline in GNP reflected an increase in net factor income outflows as output at foreign-owned firms — and, therefore their profit repatriations — remained resilient. Meanwhile, outward flows of interest payments increased and the inward flow of earnings from Irish companies located abroad fell. The decline in GDP, the calculation of which was not affected by factor flows, was less steep (7 per cent in 2009).

The return to positive growth will come about as the external impetus to activity begins to outweigh the moderating, but still negative, impact of domestic factors. In the initial stages, the recovery in the Irish economy will be influenced by the strength and sustainability of the recovery in the global economy. To date, the global economy has recovered more

strongly in the second-half of 2009 than had previously been expected and, reflecting this, there have been ongoing upward revisions to global growth forecasts for 2010. While this is a positive development, the recovery across the major industrialised economies remains somewhat fragile and uneven. Moreover, there are concerns as to the extent to which the emerging global recovery is dependent on a sizeable fiscal and monetary stimulus and other temporary factors. Notwithstanding this, however, the consensus of the main international forecasting agencies is that, following a sharp contraction in 2009, activity is projected to expand moderately in Ireland's main export markets this year.

Against this background, exports are forecast to grow modestly in 2010. While overall export performance has been better than expected during the downturn, the outcome varied considerably across sectors, with both the weakness of economic activity in the UK and the fall in the value of sterling creating a very challenging environment for firms focussed on that market. More generally, the strengthening in the value of the euro underlines the crucial objective of improving competitiveness in order to underpin export performance.

While the overall outlook for domestic demand remains subdued, there is likely to be a considerable difference in performance across the various components. The contraction in consumer spending is set to gradually come to

an end, but the outlook for investment remains unfavourable, as the ongoing adjustment in the construction sector continues. With respect to consumer spending, the trend in key indicators points towards some stabilisation. Although there is a reasonable prospect of a return to growth at some point during 2010, for the year as a whole, consumer spending is set to fall. With household incomes remaining under pressure, consumer confidence improved but still subdued and households keen to repay debt, the eventual recovery in consumer spending is likely to be slow and gradual. Labour market trends reinforce this view, with the deceleration in the rise in the unemployment rate more a reflection of a pick-up in outward migration and reduced labour force participation, rather than evidence of an underlying improvement in employment trends. Emigration and lower labour force participation may also tend to limit the rise in the unemployment rate this year. Despite a prospective decline in employment of around 3¾ per cent, the unemployment rate may now increase more modestly to average 13½ per cent.

Overall, the near-term outlook remains challenging. Nevertheless, in terms of medium-term potential, the economy retains some important strengths — such as a significant degree of flexibility and a highly-skilled and educated labour force. Building on these strengths and continuing to bolster the flexibility and adaptability of the economy will help ensure a return to reasonable rates of growth in the medium-term. The long-term growth potential of the Irish economy remains relatively favourable by the standards of a developed European economy. However, our ability to realise this potential will depend on overcoming the current challenges we now face.

These challenges relate to the ongoing management of the public finances, further consolidating the stabilisation of the banking sector and improving the competitiveness of the economy. There has been considerable progress in relation to the stabilisation of the public finances since the last Quarterly Bulletin. The measures adopted in the Budget are aimed at capping the General Government

Deficit at 11.6 per cent of GDP in 2010. In addition to the revenue effects of earlier tax increases, this is to be achieved by relying heavily on reductions in expenditure. This approach is in line with international evidence that this is the best method of tackling excessive budgetary deficits. It also reflects the lessons from Ireland's own experience in tackling the fiscal situation in the late 1970s and early 1980s. Overall, the expenditure reduction measures in the Budget amount to about €4 billion, although the net impact, allowing for subsequent lower taxation receipts, is somewhat lower at about €3.2 billion. Recognising that a significant part of the fiscal deficit is structural and not cyclical, the Government has also signalled the intention to achieve further consolidation measures amounting to €6.5 billion over the four years 2011 to 2014 inclusive to bring the deficit below the 3 per cent Stability and Growth Pact limit. It is essential that the medium-term consolidation strategy which has been set out for the progressive reduction of the deficit in coming years is realised.

The scale of the necessary adjustment reflects the fact that public spending grew rapidly during the boom years financed by strong receipts related to the property and construction sectors. There is now a clear need to very rapidly adjust both revenue and expenditure patterns to a more sustainable model. On the taxation side, this requires a broader tax base that is more stable and reliable over time. As part of the adjustments to date, there have been increases in marginal income tax rates. While the rise in these rates so far would not put Ireland out of line with many other advanced economies, there are limits to how high such rates can go without introducing negative disincentive effects. There is scope for further broadening of the tax base, however, through, for example, limiting exemptions from income tax and, introducing a system of property taxation, which is a common feature of many developed economies. Even allowing for possible changes to the taxation system, however, much of the burden of further adjustment is likely to have to fall on the expenditure side and, in this respect, the 'Report of the Special Group on Public Service



Numbers and Expenditure Programmes' provides a valuable framework. In particular, reform of the provision of public services should play a central role. This means the introduction of greater flexibility in terms of operating procedures and redeployment of resources so that service provision can be maintained, insofar as possible, while lowering costs. On the revenue side, in the interests of raising receipts and managing demand for the provision of services, it is important to move further in the direction of the 'user pays principle'.

Turning to the banking sector, despite some improvement in global financial market conditions, the operating environment for Irish banks remains very challenging. The financial crisis manifested itself in a number of ways including tighter funding conditions for Irish banks, a sharp rise in incurred and prospective loan losses, and a weakening (especially during the first half of 2009) of international perceptions regarding the Irish banking system. All of these have potentially significant direct and indirect effects on the real economy. In response, the Government has introduced a range of support measures including the guarantee of eligible liabilities, significant capital injections into the largest domestic banks and the establishment of the National Asset Management Agency (NAMA).

Economic prospects make it clear that some further loan losses can be expected even after the crystallization of losses on the transfer to NAMA of loans related to land and property development. It is clear, therefore, that the banking system will require further injections of capital this year and, to the extent that this capital cannot be raised in private markets, the Government has announced its commitment to providing sufficient capital to ensure the banks are adequately capitalised. The exact amount of extra capital that might be required from the State will depend on a number of factors including the valuation of NAMA assets, prospective losses on non-NAMA portfolios and the appetite of private investors. Overall, the transfer of assets during 2010 will have a positive impact in reducing market uncertainty

and easing the funding conditions facing Irish institutions.

The measures introduced by the Government to support the financial system reflect the need to minimise the risk of damage to the real economy, by creating the conditions that would enable banks to expand lending to creditworthy borrowers, while at the same time ensuring adequate capital and liquidity buffers to protect the stability of the banking system. Ensuring an adequate supply of funding to Irish enterprises, including small and medium-sized enterprises and potential house buyers, is a prerequisite for recovery. It is important to avoid a negative feedback loop from arising between the financial sector and the real economy by strengthening the banking sector sufficiently to facilitate an adequate supply of credit. This has to work in tandem, however, with the appropriate policies being adopted in other spheres, in particular in relation to the public finances and restoring competitiveness, in order to establish a solidly based recovery in growth.

While significant progress on the first two policy issues is required to provide a stable background for economic growth, it is the improvement of the country's competitiveness position that will be the key to returning the economy to sustainable growth over the medium term. Although there may be considerable headwinds to any global recovery, the current rebound in world trade is, however, a positive development and latching on to strengthening external demand, combined with a restoration of confidence domestically, offers the best option for a sustained upturn in output growth. For this reason, competitiveness is central to recovery. There were sustained losses in competitiveness through most of the second part of the last decade as domestic prices and wages were driven up by strong demand. Irish inflation exceeded that of the euro area in every year, bar one, between 1998 and 2007. Productivity growth was strong in the early part of the last decade but it fell back subsequently, raising the costs of production in Ireland relative to other countries.

There has been a downward movement in prices in Ireland in recent times, both in absolute terms and relative to the situation in most other countries. This reflects some compression of profit margins but also declines in nominal wages in some sectors. This will improve our competitiveness position this year. For employees, the impact of the decline in nominal wages has been cushioned by the decline in prices although, in some sectors, including the public sector and the financial services sectors, declines in the real purchasing power of wages have occurred. In some other sectors, the position is less clear. It is important for the overall competitiveness of the economy, however, that wage restraint becomes the norm and that nominal wage developments reflect the fact that prices have fallen and that productivity growth is currently weak and has been so for some time. Such a development would help to improve not only the direct wage costs of firms in the traded sector but also the costs that they bear through their purchasing of goods and services in the economy. In achieving this objective, existing employment and future job creation prospects will be enhanced. The Annual Competitiveness Report of the National Competitiveness Council also draws attention to the fact that administered prices have continued to rise, professional fees remain very high in Ireland and that greater competition and regulation is needed in a range of sectors, such as health care, health insurance, utilities and public transport.

Some historical perspective is useful in assessing the current situation. Real living standards in the economy are still high by international standards and are much higher than they were a generation ago. GNP per capita (adjusted for purchasing power) rose from under 70 per cent of the EU average in the 1980s to over 110 per cent in the boom years. Although this indicator has been falling quite sharply over the last two years, it will level off at somewhere in the region of 90 to 95 per cent of the EU average. The employment rate in the economy, the proportion of the population aged 15 and over that is working is about 62 per cent, is also well above the corresponding rate of 52 per cent in 1990, despite the recent rise in unemployment. As already noted, the underlying strengths that the economy developed over the last twenty years, such as the high level of education and increased flexibility, have not been undone and, with careful policy choices and determined action, the economy can return to a moderate growth rate that will gradually reduce unemployment and improve living standards over time. Progress, on this occasion, however, has to be based on solid growth in activities that are, for the most part, internationally traded and that are linked to the underlying strengths of the economy and not, as in the recent past, reflective of unbalanced domestic developments that are vulnerable to sudden correction.

# The Domestic Economy

## Forecast Highlights

- The level of activity in the Irish economy, as measured by GDP, contracted by an estimated 7 per cent last year. National Income, as measured by GNP recorded a much larger decline of about 11.3 per cent. The divergence between GDP and GNP last year reflected the impact of significant net factor income outflows which are included in GNP but not in GDP.
- Following a sharp contraction in the level of output at the end of 2008 and in early 2009, the pace of decline has moderated significantly since. This gradual stabilisation is likely to continue into the first half of this year, followed by the emergence of modest export-led growth thereafter. Domestic demand will continue to contract in 2010, albeit at a slower pace than last year. For 2010 as a whole, the economy is again likely to record negative growth of about 1 per cent in GDP terms with GNP declining by about 2 per cent.
- Looking ahead to 2011, with domestic demand likely to have levelled off and no longer imparting a negative contribution to overall growth, a sustained recovery in exports should provide the basis for a rebound to growth of about 2½ to 3 per cent. This level of growth should support some modest increase in employment next year. This outlook is contingent on the durability of the international recovery since domestic sources of growth are unlikely to emerge in the near term.
- The weakness in aggregate demand last year was reflected in extremely challenging labour market conditions. Employment losses were widespread averaging about 8 per cent. The impact of rising emigration and falling labour market participation on labour supply slowed the rise in unemployment, which averaged just below 12 per cent last year. This trend is expected to continue in 2010, limiting the increase in the unemployment rate to an average of about 13½ per cent despite a decline in employment of about 3¾ per cent.
- A significant rebalancing in the composition of final demand from domestic to external sources is reflected in a decline in the Balance of Payments deficit from 6.1 per cent of GNP in 2008 to a projected deficit of about 2½ per cent of GNP this year. Further improvement towards balance in 2011 will be mainly due to an improvement in exports rather than contracting domestic demand, which should begin to stabilise at that stage.
- The consumer price level declined significantly last year and inflation is projected to remain negative in 2010. Harmonised Index of Consumer Prices (HICP) inflation is forecast to average about -1.1 per cent in 2010 while the Consumer Price Index (CPI) is forecast to decline by 1.3 per cent.
- Despite a rebound in external inflation, overall inflationary pressures are likely to remain subdued into next year, as labour market weakness persists and disposable incomes contract sharply. Inflation is forecast to average about 1 per cent next year, remaining below the euro area average and indicating a further improvement in price competitiveness with respect to our trading partners in the euro area.

## Overview

The level of activity in the Irish economy, as measured by GDP, contracted by an estimated 7 per cent last year. National Income, as measured by GNP recorded a much larger decline of about 11.3 per cent. A severe contraction in domestic demand, with both consumption and investment expenditure declining sharply and government consumption also contracting, accounted for much of the decline in overall activity. Exports volumes also declined somewhat but, nevertheless, performed quite well, given the exceptionally weak external environment. The relative resilience of overall exports was accounted for by a strong performance of foreign owned sectors such as pharmaceuticals, which in turn contributed to a sharp increase in profit repatriation. This factor, together with relatively weak income inflows and an increase in interest payments, resulted in a sharp rise in net factor income outflows. These outflows led to a significant divergence between GNP and GDP last year.

Following an exceptionally weak first quarter, the rate of decline in activity moderated during the remainder of last year. In the third quarter, according to Quarterly National Accounts data, GDP increased marginally by 0.3 per cent reflecting a sharp decline in imports which offset a contraction in all components of final demand. The gradual stabilisation in the level of output is likely to continue into the first half of this year followed by the emergence of modest export-led growth thereafter.

If, as expected, the recovery in external demand gathers momentum during the course of 2010, Irish exports should also revive, returning to positive growth of about 1½ per cent for the year as a whole. However, domestic demand looks set to decline again this year. Consumption is projected to decline in real terms reflecting continued erosion of disposable incomes arising from further declines in employment and earnings and a rise in the personal tax burden, reflecting a carryover from measures introduced in 2009. Investment will also make a negative contribution to growth this year, albeit a less significant one than in 2009, reflecting both a

moderation in its rate of decline and its much lower share in overall GDP.

For 2010 as a whole, the economy is again likely to record negative growth of about 1 per cent in GDP terms with GNP declining by about 2 per cent. Looking ahead to 2011, with domestic demand likely to have levelled off and no longer imparting a negative contribution to overall growth, a sustained recovery in exports should provide the basis for a rebound to modest growth of about 2½ to 3 per cent.

External demand conditions facing the Irish economy were on balance quite negative last year, reflecting a severe contraction in world demand against a background of severe disruption to international financial markets. The downturn internationally was highly synchronised with a low point, manifest in a sharp contraction in world trade volumes, reached in the first quarter of last year. This was followed by a gradual recovery during the remainder of the year, supported in most industrialised economies by exceptional monetary and fiscal policy accommodation. A key policy decision will be the timing of the gradual removal of these supports. Delayed action risks the emergence of inflation and the embedding of structural fiscal imbalances which would undermine the long-term sustainability of public finances. A premature reversal of the current accommodative stance, however, risks undermining the still fragile recovery in private demand. Notwithstanding uncertainties regarding the resilience of the recovery, the consensus outlook from international agencies such as the OECD, IMF and EU Commission is for a modest rebound in world demand which gains some momentum over the next two years. Following a decline of 3.8 per cent in 2009, real GDP in Ireland's main trading partners, weighted by their shares in Irish exports is projected to increase by 1.4 per cent this year, accelerating to 2.1 per cent in 2011.

Irish exports proved quite resilient last year with volumes declining at a relatively modest rate of about 2.5 per cent, compared to a decline in world trade volumes of about 12.5 per cent (OECD estimate). This represents a much

stronger performance than that of most of Ireland's trading partners where export volume declines matched the double digit decline in world demand. However, total export volumes were flattered by a strong performance by the modern sector and, in particular, pharmaceuticals, while indigenous sectors such as food and drink performed exceptionally poorly. These sectors, which are relatively labour intensive, have a large exposure to the UK market where adverse exchange rate trends have exacerbated the impact of the loss of cost competitiveness in recent years. In terms of overall exports, there is a reasonable prospect of a return to positive growth this year against a background of a modest recovery in external demand. However, notwithstanding recent significant improvements, particularly in the area of wage costs, there is some way to go in fully reversing past competitiveness losses which continue to hamper recovery. This factor, together with sector specific factors in the IT sector will weigh on overall export volume growth for much of this year. For the year as a whole, exports are projected to increase in volume terms by about 1½ per cent reflecting a gradual upward trend during the year. This upward trend should continue into next year provided the ongoing improvement in relative cost competitiveness is sustained and the recovery in external demand does not falter.

Although exports declined last year, net exports (exports minus imports) made a significant positive contribution to overall GDP growth. This reflected a very significant decline in import volumes due, in the main, to the weakness of domestic demand. The impact of weak import demand was particularly evident in the latest Quarterly National Accounts data for Q3 2009, when a sharp decline in imports resulted in a small positive increase of 0.3 per cent in GDP despite a decline in all components of final demand. A further decline in import demand is likely this year, again reflecting the impact of contracting domestic demand.

Domestic demand, which contracted by about 13 per cent, was the main driver of the overall decline in output and employment last year. Investment expenditure was the weakest

component, declining by over 30 per cent and, within this, housing completions were down by around 50 per cent. Non-housing investment also contracted sharply in the face of a severe downturn in demand. The outlook for investment this year remains difficult. Leading indicators point to a further significant decline in housing output and over-supply in commercial building points to a similar outlook in that sector. Prospects for machinery and equipment investment also remain poor. Overall, investment expenditure is projected to decline by about 18½ per cent this year. Consumer expenditure declined sharply last year, by about 7½ per cent. Declining employment and wages, coupled with increases in taxes, depressed disposable incomes, while heightened uncertainty regarding current and future prospects contributed to an increase in precautionary saving. In the year ahead, disposable incomes will remain under severe pressure and although a gradual improvement in confidence could arrest the increase in the savings rate, a further decline in the volume of consumption of about 3 per cent seems likely.

The contraction of domestic demand has driven a significant rebalancing in the composition of final demand from domestic to external sources which is manifest in a significant increase in the merchandise trade balance. Taking account of some offsetting deterioration in the invisibles balance, a decline in the deficit on the Current Account of the Balance of Payments, from 6.1 per cent of GNP in 2008 to about 2½ per cent of GNP seems likely this year. Further improvement towards balance in 2011 will be mainly due to export growth rather than contracting domestic demand which should begin to stabilise at that stage.

The weakness in aggregate demand and, in particular, the severe contraction in domestic expenditure last year was reflected in extremely challenging labour market conditions. Employment losses were wide-spread averaging about 8 per cent and were particularly severe in the construction sector, in domestically orientated services and in labour intensive manufacturing firms. Unemployment

**Table 1: Expenditure on Gross National Product 2008, 2009<sup>f</sup> and 2010<sup>f</sup>**

	2008		% change in		2009 <sup>f</sup>		% change in		2010 <sup>f</sup>
	€ million	Volume	Price	€ million	Volume	Price	€ million		
Personal consumption	93,863	-7.5	-2.7	84,431	-3.0	-1.1	81,031		
Public consumption	28,901	-1.0	-2.5	27,884	-3.0	-3.9	25,993		
Gross domestic fixed capital formation	39,474	-30.5	-7.2	25,465	-18.4	-5.1	19,731		
<i>of which:</i>									
• Building and construction	29,997	-33.8	-10.7	17,732	-22.9	-7.6	12,624		
• Machinery and equipment	9,477	-20.0	2.0	7,733	-8.0	-0.1	7,107		
Value of physical changes in stocks	317			-1,400			200		
Statistical discrepancy	365			365			365		
<b>Gross domestic expenditure</b>	<b>162,920</b>	<b>-13.0</b>	<b>-3.6</b>	<b>136,745</b>	<b>-4.7</b>	<b>-2.3</b>	<b>127,320</b>		
Exports of goods & services	151,896	-2.5	0.5	148,848	1.4	-0.6	150,047		
<b>Final demand</b>	<b>314,816</b>	<b>-7.9</b>	<b>-1.5</b>	<b>285,593</b>	<b>-1.5</b>	<b>-1.4</b>	<b>277,367</b>		
Imports of goods & services	-133,002	-9.1	0.2	-121,057	-2.2	-0.1	-118,350		
<b>Gross domestic product</b>	<b>181,814</b>	<b>-7.0</b>	<b>-2.6</b>	<b>164,536</b>	<b>-1.0</b>	<b>-2.4</b>	<b>159,017</b>		
Net factor income from rest of the world	-27,218			-32,039			-32,814		
<b>Gross national product</b>	<b>154,596</b>	<b>-11.3</b>	<b>-3.4</b>	<b>132,497</b>	<b>-2.0</b>	<b>-2.8</b>	<b>126,203</b>		

increased sharply to an average of almost 12 per cent. The impact of rising emigration and falling labour market participation on labour supply slowed the rise in unemployment, particularly in the second half of last year. This trend is expected to continue this year, limiting the increase in the unemployment rate, which is expected to average about 13½ per cent, despite a decline in employment of about 3¼ per cent.

The rate of Irish Harmonised Index of Consumer Prices (HICP) inflation averaged -1.7 per cent in 2009 while the Consumer Price Index (CPI) declined by 4.5 per cent, with base effects from mortgage interest repayments accounting for the large differential. Base effects, also arising from volatility in international commodity prices, will continue to strongly influence headline inflation rates over the short-term. Despite signs that external prices are beginning to rebound, inflationary pressures overall are likely to remain subdued during 2010 as challenging labour market conditions persist and disposable income growth remains constrained. Accordingly, the HICP and CPI are projected to record more modest declines of about 1.1 per cent and 1.3 per cent, respectively, this year. Inflation is likely to turn positive in 2011, averaging about 1 per cent on CPI basis with HICP inflation somewhat less than this. The risks for the inflation outlook appear to be broadly balanced and relate in the main to the projected muted

recovery of the domestic economy and the evolution of international commodity prices.

The Irish annual average HICP inflation rate is likely to be significantly lower than the corresponding inflation rate for the euro area again this year, indicating a further boost to price competitiveness. There are also tentative signs of an improvement across a range of cost competitiveness indicators following a number of years in which the Irish economy experienced a substantial deterioration in competitiveness relative to our main trading partners. In particular, the significant downward adjustments in wages per employee should provide a timely boost for export competitiveness, made all the more necessary by the significant appreciation of the euro exchange rate against sterling during the past two years. Similarly, property prices, rents and energy costs have fallen significantly during the past year. The outlook for competitiveness developments in 2010 is also favourable, although much will depend on the projected rebound in productivity growth and labour market developments and exchange rate developments. Lowering the costs of doing business in Ireland represents a necessary adjustment and would leave the economy better placed to benefit from a global economic upturn. The prospects for further recovery in wage and cost competitiveness in 2010 are relatively good.

## Demand

### Consumer Spending

The volume of consumer spending declined significantly during the course of last year reversing the cumulative increase of the previous three years — the volume of consumer expenditure is currently back at its level in 2005. National Accounts data show an annual decline of 7.3 per cent in the third quarter of the year following declines of 6.9 per cent and 9.5 per cent respectively in the previous two quarters. For the year as a whole, the volume of consumption is estimated to have declined by about 7.5 per cent in 2009.

Although available indicators point to some moderation in its rate of decline following an exceptionally weak first quarter, consumer demand remained quite subdued throughout the year. Retail sales, which declined precipitously in the first quarter of this year on foot of exceptionally weak sales of cars and other consumer durables, recovered during the remainder of the year but remained sharply down on a year-on-year basis. New car registrations (SIMI data), down by 65 per cent in the first quarter, remained exceptionally

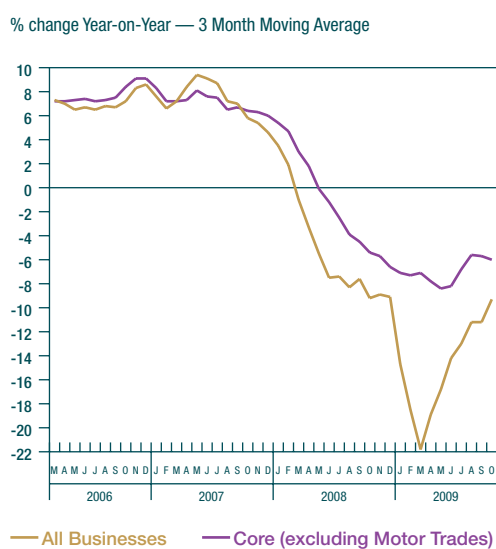
weak for the remainder of the year and declined by 62.1 per cent for the year as a whole. The weakness of retail sales both in real and nominal terms was reflected in a sharp drop in indirect tax receipts with VAT and excise duty receipts down by 20.6 and 13.6 per cent respectively in 2009.

The decline in consumer expenditure last year reflected the impact of contracting disposable incomes and exceptionally weak consumer confidence which prompted an increase in precautionary savings. Although there are signs of improving consumer sentiment in recent months which should provide some support for demand, the further erosion of disposable incomes arising from declining employment incomes and an increased tax burden, arising from a carryover from 2009, will give little scope for increased consumer demand in 2010. Although there is a reasonable prospect of a return to positive growth in consumer spending at some stage during the second half of the year, a decline of about 3 per cent is in prospect for the year as a whole.

### Investment

Quarterly National Accounts for the third quarter of 2009 show that the largest negative impulse to domestic demand continues to come from large decreases in investment, which declined at a record pace in year-on-year terms at 35 per cent. The bulk of the contraction is coming from the building and construction component and the prospects for the remainder of last year and into this year are for continued declines in activity, the levels of which are likely to remain low for some time to come. For 2009 as a whole, house completions slowed to about 26,420 new units<sup>1</sup> from approximately 52,000 units the previous year, a decline of about 50 per cent. The Bank's statistical model, based on forward looking indicators (registrations), suggests that house completions are likely to fall to, at most, 10,000 units this year — comprising mostly one-off units as new housing schemes and apartment developments come to a halt. Coupled with some limited growth in repairs

**Chart 1: Index of Volume of Retail Sales**



<sup>1</sup> This figure is based on connections to the electricity grid. The actual underlying completions figure for 2009 is likely to be lower than this as some houses that were built in previous years were only connected to the grid as potential buyers were identified.

and maintenance, investment in residential housing is forecast to decline by approximately 36 per cent this year, following a projected decline of 40 per cent last year. House-building activity is likely to remain at this low level next year as overcapacity, financial constraints and a lack of demand are still the prevalent forces in the market.

Following declines of 29 per cent in the first three quarters of 2009 year-on-year, weakness in non-residential construction is also set to continue into 2010 as commercial, retail and industrial market fundamentals remain weak and government investment records significant declines as outlined under the Public Capital Programme<sup>2</sup> in Budget 2010. Demand for property in most sectors remains weak, with oversupply, falling rents and capital values (see the section on commercial property prices) and uncertainty over how NAMA will affect the market. A recent market report (from CB Richard Ellis (CBRE)) indicates that the total value of commercial investment deals signed in the first three-quarters of 2009 reached just €71 million, compared with €465 million in the first three-quarters of 2008. Non-residential investment is forecast to fall by 27 and 13 per cent in 2009 and 2010, respectively.

Taken together, the forecasts for residential and non-residential investment imply that investment in building and construction is forecast to decrease by almost 34 per cent in 2009, followed by a further reduction of 23 per cent in 2010.

In conjunction with the downsizing of the construction sector and a weak manufacturing sector outlook and broad-based weakness in the economy more generally, investment in machinery and equipment is forecast to decrease by 20 per cent this year and 8 per cent in 2010. These forecasts are, however, tentative in nature given the uncertainty surrounding the timing and magnitude of aircraft purchases. Given the assumptions for construction and machinery and equipment investment, overall investment is estimated to

have contracted by 30.5 per cent in 2009 and is forecast to decline by 18.4 per cent in 2010.

### Stock Changes

Stocks made a negative contribution to the change in GDP last year of about 1 percentage point. Some recovery in inventory levels is assumed this year in line with improving prospects for output growth.

### Government Consumption

The volume of Government consumption declined by 0.7 per cent on average in the first three quarters of last year and is estimated to have declined by about 1 per cent for the year as a whole. On the basis of expenditure plans as set out in the 2010, the volume of Government consumption is projected to decline in real terms by about 3 per cent this year.

## External Demand and the Balance of Payments

### Merchandise Trade

The performance of merchandise exports weakened further during the third quarter of 2009, yielding an average decline of 4.4 per cent during the first three quarters of the year in volume terms. It is, however, important to view such an outturn against the backdrop of sharply contracting world trade volumes and a generally more challenging operating environment for Irish exporters. The weakening of merchandise exports during the third quarter also partly reflected the volatile nature of output from the broad chemicals sector, with some fall off in organic chemicals occurring during this period. Nevertheless, the exceptional buoyancy of the pharmaceuticals sector continued in the third quarter, with an increase of around 25 per cent in value terms. Given recent price developments, this suggests a somewhat less pronounced increase in volume terms. As regards the outturn for the final quarter of 2009, the new export orders index of the NCB Purchasing Managers' Index for Manufacturing is consistent with a modestly stronger outturn for merchandise exports, with the index standing above the contraction/expansion threshold of 50 during both November and December. Nevertheless, merchandise exports

<sup>2</sup> Falling tender prices means that the volume decline in government investment will be less than that indicated in value terms.



**Table 2: Merchandise Trade (Adjusted) 2008, 2009<sup>f</sup> and 2010<sup>f</sup>**

	2008	% change in		2009 <sup>f</sup>	% change in		2010 <sup>f</sup>
	€ million	Volume	Price	€ million	Volume	Price	€ million
Merchandise exports	82,693	-3.9	1.3	80,530	0.7	-1.3	80,054
Merchandise imports	-58,428	-22.7	1.1	-45,670	-9.7	-0.5	-41,028
Merchandise trade balance (adjusted)	24,265			34,860			39,026
(% of GNP)	15.7			26.3			30.9

are estimated to have fallen further during the final quarter of the year resulting in an annual average decline of 3.9 per cent in volume terms. Such an outlook represents a downward revision relative to the previous Quarterly Bulletin, reflecting recent, more negative developments. The 2010 outlook for merchandise exports depends heavily upon the strength of the recovery in external demand as well as the external market share that Irish exporters are able to capture. While external demand is projected to expand this year, modest rates of increase are anticipated by historical standards. As a result, the recovery in merchandise exports seems likely to be muted, with an increase of 0.7 per cent in volume terms.

The background of sharply contracting domestic demand has significantly impacted upon merchandise import flows, with double-digit declines recorded during the first three quarters of 2009. The pace of decline in merchandise imports accelerated in the third quarter, with a year-on-year fall of 24.4 per cent in volume terms. As regards the outturn for 2009 as a whole, an average annual decline in volume terms of 22.7 per cent is envisaged. Given the projected contraction in domestic demand during 2010, demand for merchandise imports seem set to fall further. Accordingly, a marked decline in the volume of merchandise imports is projected, with a fall of 9.7 per cent in average annual terms. Given the dramatic falloff in merchandise import volumes during 2009, an improvement in the merchandise trade surplus during 2009 is estimated to have occurred. Similarly, a rise in the merchandise trade surplus is anticipated in 2010.

### Services, Factor Incomes and International Transfers

Following a sharp falloff during the first half of 2009, services exports rose during the third quarter, with a year-on-year increase of 2.0 per cent in volume terms. This represents the first such increase since the beginning of 2008, which tentatively suggests that services exports have begun to recover. At a sectoral level, a significant divergence in performance was evident. Much of the strengthening during the third quarter of 2009 reflected the buoyant performance of business services and, to a somewhat lesser extent, computer services, which, when combined account for almost 65 per cent of services exports. In contrast, the insurance and financial services sectors continued to place downward pressure on services export activity during this period. The NCB Purchasing Managers' Index for Services suggests that services exports recovered further during the final quarter of 2009, pointing to increasing rates of expansion in services sector activity. The PMI new export orders index reached 54.7 in December, up from 52.7 in the previous month, a level which represents the highest reading since October 2007. On this basis and amid the stabilisation in world trade flows, it is estimated that services exports grew further during the final quarter of 2009. Consistent with the prospects for some recovery in external demand during 2010, modest growth in services exports is projected, as the recovery in a number of sectors, in particular, computer and business services, gathers momentum.

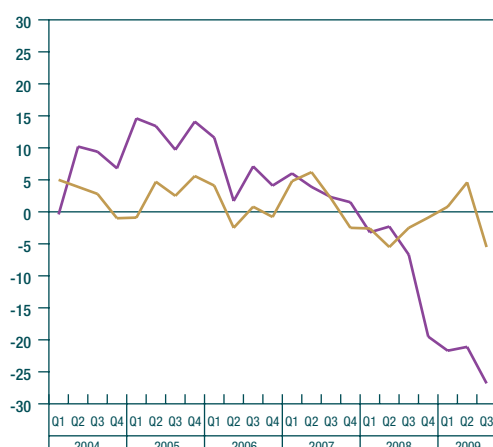
Services imports declined by 2.2 per cent in volume terms, year-on-year, in the third quarter of 2009. The bulk of this decline related to tourism and travel services and business services, with an annual decline in value terms

**Table 3: Current Account of Balance of Payments 2008, 2009<sup>f</sup> and 2010<sup>f</sup>**

€ million	2008	2009 <sup>f</sup>	2010 <sup>f</sup>
<b>Current account</b>			
• Merchandise trade balance (Adjusted)	23,820	33,867	38,034
• Services	-5,371	-7,069	-7,329
• Net factor income from rest of the world	-26,771	-31,592	-32,367
• Current international transfers	-1,115	-1,120	-1,320
<b>Balance on current account</b>	<b>-9,437</b>	<b>-5,914</b>	<b>-2,982</b>
(% of GNP)	-6.1	-4.5	-2.4

**Chart 2: Value of External Trade**

% change Year-on-Year



— Exports — Imports  
Source: CSO

of 18.8 per cent and 1.7 per cent, respectively, in the third quarter. Services imports are projected to have increased during the final quarter of 2009. As regards the outlook for 2010, a further increase in services imports is envisaged. Given that the performance of services imports is estimated to have outpaced that of the export side, the services trade deficit seems likely to have widened during 2009. Some further widening in the services trade deficit is projected in 2010.

Net factor income outflows increased, year-on-year, in the third quarter of 2009, rising by 11.9 per cent. This increase reflected a sizable falloff in income inflows and, to a somewhat lesser extent, weaker income outflows. Net

factor income outflows are estimated to have risen during 2009 as a whole and this is expected to be followed by a further, albeit modest, increase this year. The international transfers component of the current account was negative in the year to the third quarter of 2009. The negative contribution to the current account arising from this component is projected to continue throughout the remainder of 2009 and 2010. Combining the prospective trends across the various current account components, a deficit of around 4.5 per cent of GNP is estimated for 2009. Some further improvement is anticipated this year, with a current account deficit of 2.4 per cent of GNP.

## Supply

### Industry and Services Output

Provisional data from the CSO suggest manufacturing output contracted in annual terms by 1.8 per cent in the year to November 2009. The divergence in performance between the modern and traditional sectors widened throughout 2009, with the modern sector growing by 6.2 and the latter contracting by 14.9 per cent over the same period. Output in the modern sector in 2009 was supported almost entirely by the buoyancy of the pharmaceutical subsector which is estimated to have expanded by a considerable 21.6 per cent in annual terms in the eleven months to November, relative to growth of 1.2 per cent a year previously. Pharmaceuticals now account for almost 58 per cent of gross output in the modern sector overall. In contrast, chemicals continued to weaken, falling by 10.7 per cent over the period, exhibiting a marked acceleration in contraction since their fall of 1.3 over the same period in 2008. The contraction

**Table 4: Industry and Manufacturing Output, Annual Percentage Change**

	Industrial Output			
	Modern	Other	Manufacturing	Total Industry
1999	21.3	9.2	15.0	14.8
2000	19.1	9.7	14.6	14.3
2001	16.3	5.5	11.4	11.0
2002	13.0	2.6	8.5	8.2
2003	7.0	4.0	5.6	5.7
2004	0.3	2.5	1.1	1.2
2005	5.2	2.3	4.1	4.0
2006	3.8	1.6	3.1	2.9
2007	6.6	3.0	5.3	5.0
2008	0.4	-4.1	-1.9	-1.8
2009 <sup>e</sup>	7.2	-14.3	-1.4	-1.6
2010 <sup>f</sup>	3.9	-1.6	0.6	0.4
2011 <sup>f</sup>	3.5	-0.9	1.3	1.2
Average 1999-2011	8.3	1.5	5.2	5.0

Note: As output data produced by the CSO now conforms with NACE Rev2 categorisation practices, and has been re-based to 2005, these figures no longer correspond directly with the industrial sector figures referenced in previous Quarterly Bulletins published before QB4 2009.

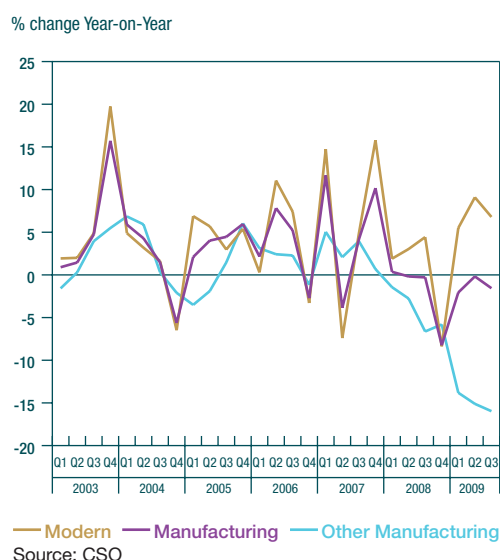
in manufacturing output less chemicals and pharmaceuticals gathered pace as the year progressed, culminating in a fall of 16.3 per cent in annual terms over the year to November 2009, highlighting the extent to which output trends in manufacturing industry are dominated by the performance of pharmaceuticals.

As indicated by the NCB Purchasing Managers Index (PMI), a composite indicator tracking the activity in manufacturing industry, production has now contracted in each month since December 2007. While the headline index stood at 48.8 in December (a value below 50 indicates a contraction in activity), levels now appear to have recovered to values registered in the first quarter of 2008. Despite ongoing contraction in prices, employment and output prices, the fortunes of new orders and exports have improved with each of the three latter components breaching the 50 index mark for the first time since February 2008.

Given the pick-up in global demand anticipated this year and the consequent positive outlook for exports, output in manufacturing is expected to grow by 0.6 per cent in 2010. Continued weakness in the traditional sector is anticipated to act as a drag on the expectedly buoyant modern sector.

The latest Quarterly National Accounts show that output in the services sector also contracted in 2009, with annual output in the third quarter in the Other Services and Public Administration sectors down 3.4 per cent and 4.9 per cent, respectively. The pace of deterioration in the third quarter accelerated from that of the second quarter. Sharp output declines were also posted in the Distribution,

**Chart 3: Volume of Industrial Production**



Source: CSO

**Table 5: Summary of Agricultural Output and Income 2008, 2009<sup>f</sup> and 2010<sup>f</sup>**

	2008	% change in			2009 <sup>e</sup> b	% change in			2010 <sup>f</sup>
	€ million	Value	Volume	Price	€ million	Value	Volume	Price	€ million
Goods output at producer prices <sup>a</sup>	5,827	-18.9	-3.0	6.3	4,727	4.1	1.6	2.6	4,919
Intermediate consumption	4,494	-9.0	-3.5	2.6	4,091	1.1	2.5	0.4	4,135
Net subsidies plus services output less expenses	1,904	-1.5			1,876	-3.5			1,810
Operating surplus	2,324	-30.3			1,620	6.6			1,727

<sup>a</sup>Including the value of stock changes.

<sup>b</sup>CSO estimates.

Transport and Communications sub-sector, which contracted throughout the year with output falling by 9.0 per cent in annual terms in the third quarter of 2009. The NCB Purchasing Managers Index for Services (excluding retail and wholesale), having posted sharp declines from October 2008 through to July 2009, appears to have stabilised, nudging back towards the 50 mark in the last quarter of 2009, driven by strong gains in the confidence and exports component.

### Agricultural Output

Full year preliminary CSO price estimates suggest that output prices in 2009 were down 15.7 per cent on their 2008 levels, with input prices down 8.6 per cent in annual terms. This implies an estimated worsening in terms of trade of 7.7 per cent in 2009 driven principally by output price changes.

The most recent Quarterly National Accounts for the third quarter of 2009 reveal that output in the Agriculture, Forestry and Fishing sector (capturing a broader set of activities than those implicit in Table 5) fell by 0.4 per cent relative to the same period last year, in contrast to the annual growth rate of 4.4 per cent registered in the second quarter of 2009. Notably, these declines were recorded before the occurrence of the November flooding or severe frost over the new-year and reflected already low yields resulting from the particularly wet summer.

The outlook for the sector in 2010 will thus be dominated by the adverse impact of the

flooding which swept the country in late 2009 and the subsequent bout of severe frost. Advance estimates from the CSO suggest that before any provision for flood implications is made, operating surplus was down 30.3 per cent in annual terms in 2009, due to a combination of adverse terms of trade movements and continued euro appreciation, which placed the export segment of the sector under considerable strain in the latter part of 2009 in particular.

### The Labour Market

A further marked deterioration in labour demand was evident in the third quarter of 2009, with the fall in employment outpacing that of the previous quarter. When seasonal factors are taken into account, total employment fell by 2.1 per cent in the third quarter. This compares with a decline of 1.7 per cent in the second quarter. The weakness of labour demand was broadly based, with employment falling, year-on-year, in nine of the fourteen economic sectors. There was, however, considerable variation across sectors in terms of the magnitude of the fall; much of the weakness was concentrated in the construction, industry and wholesale and retail sectors. It is important to note that the decline in overall employment would have been larger had the fall in full-time employment not been partially offset by an increase in the number of part-time workers. On the basis of the outturn for the third quarter, further weakening in labour demand seems likely to have occurred during the final quarter of 2009. It is, nevertheless, anticipated that the pace of

**Table 6: Employment and Unemployment 2008, 2009<sup>f</sup> and 2010<sup>f</sup>**

<b>(annual average '000)</b>	<b>2008</b>	<b>2009<sup>f</sup></b>	<b>2010<sup>f</sup></b>
Agriculture	115	98	95
Industry (including construction)	520	414	383
Services	1,465	1,420	1,382
Total employment	2,100	1,933	1,860
Unemployment	141	261	290
Labour force	2,241	2,194	2,150
Unemployment rate (%)	6.3	11.9	13.5

Note: Figures may not sum due to rounding.

contraction in employment slowed, producing an annual average decline of 8.0 per cent.

The labour force also weakened appreciably during the third quarter of 2009, contracting by 2.8 per cent, year-on-year. This fall off may primarily be attributed to a decline in participation, as illustrated by the 1.7 percentage point drop in the labour force participation rate. A fall in participation amongst younger persons (aged 15-24) and males underpinned the sharpness of the decline in participation. This reflects the fact that they have been most exposed to job losses in the construction sector. Furthermore, a period of rising unemployment is generally associated with a declining participation rate, as people become discouraged about the prospects of finding work and the numbers undertaking further education rises in response to weak labour demand. In addition to changes in participation, the labour force is also affected by demographic factors, namely, changes in migration and the age structure of the population, which are estimated to have contributed 10,600 persons to the overall decline in the labour force. Based on tentative estimates provided by the CSO, the number of non-Irish nationals in the labour force fell by around 40,500 persons over the same period. This implies that the changing age structure of the population boosted the labour force by around 30,000 persons, year-on-year, in the third quarter. Some further fall off in labour supply is estimated for the final quarter of 2009, with the overall decline for the year averaging around 2.1 per cent.

The decline in the labour force during the year to the third quarter served to partially offset the impact of contracting labour demand on the unemployment rate. As a result, the pace of increase in unemployment slowed in the third quarter, with the unemployment rate in seasonally adjusted terms rising to 12.4 per cent from 11.6 per cent in the second quarter. This represents the smallest such increase since the second quarter of 2008. In addition to changes in the level of unemployment, developments in relation to the duration of unemployment are also of considerable importance. The bulk of the increase in unemployment during the year to the third quarter reflected a rise in short-term unemployment. The long-term unemployment rate has, nevertheless, risen markedly as the downturn has persisted, reaching an 11-year high of 3.2 per cent. While the QNHS points to continued labour market weakness during the third quarter of 2009, more recent data from the Live Register suggests that labour market conditions stabilised somewhat during the fourth quarter, with an average monthly increase of 400 persons. This compares with an average monthly increase of 5,300 during the previous quarter. As regards the unemployment outturn for 2009 as a whole, the unemployment rate is estimated to have averaged around 11.9 per cent.

As regards the outlook for 2010, the weakness is expected to remain as labour market developments typically lag movements in economic activity. Employment is expected to fall by around 3.8 per cent this year, with the construction, manufacturing and domestically orientated services sectors recording the

largest rates of decline. The continued weakness of labour demand is expected to weigh upon labour force developments this year. It is envisaged that outward migration flows will continue while further declines in labour force participation are anticipated. Reflecting such a combination of developments, the labour force is expected to fall by around 2 per cent in average annual terms. When combined with the estimate for employment, the unemployment rate is projected to average 13.5 per cent in 2010.

### Pay

Based on data from the CSO's Earnings, Hours and Employment Costs Survey (EHECS), wage pressures fell further during the year to the second quarter of 2009, with average weekly earnings on a whole economy basis declining by 1.1 per cent. This compares with a rise of 0.3 per cent, year-on-year, in the first quarter. The weakness of average weekly earnings during this period was broadly based at a sectoral level (See Box A below for further analysis). A decomposition of average weekly earnings reveals that the fall observed in the second quarter was strongly influenced by reductions in hours worked — average weekly paid hours dropped by 2.7 per cent annually in the second quarter. By comparison, average hourly earnings increased, rising by 1.8 per cent over the same period. Nevertheless, hourly earnings decelerated somewhat relative to the 3.6 per cent increase of the previous quarter. A breakdown of average hourly earnings into regular and irregular components suggests that the bulk of the observed deceleration has been driven by cuts in irregular earnings such as bonus payments. This is evidenced by the sharp contrast between the 26 per cent fall in irregular earnings and the 3.4 per cent rise in hourly earnings excluding irregular payments. Such an outturn is not surprising given that irregular earnings represent the most flexible component of pay.

There are two important factors to be taken into account when analysing the EHECS results for the second quarter of 2009. The first of these relates to compositional effects, which arise as layoffs tend to disproportionately affect less skilled and lower paid workers while those with higher skills tend to be retained. Such changes in the composition of employment place upward pressure on average earnings. The second factor relates to the public service pension levy. Average weekly earnings published in the EHECS are gross amounts before deductions for PRSI, tax and other levies. Accordingly, developments in public sector wages do not include the impact of the public service pension levy, which amounts to around 7 per cent on average. Tentative estimates suggest that, when both compositional effects and the pension levy are taken into consideration, the whole economy annual rate of decline in average weekly earnings exceeded 4 per cent in the second quarter of 2009.

As regards the outturn for 2009 as a whole, it seems likely that the downward momentum of the first two quarters continued into the second half of the year given the backdrop of falling prices and labour market slack. Accordingly, average compensation per employee is estimated to have declined by 2.9 per cent during 2009. A further fall is anticipated during 2010, with cyclical factors continuing to weigh upon wage developments. It is important to note that the projections are not adjusted for compositional effects yet they incorporate both the pension levy and the public service pay cut announced in Budget 2010. The public sector pay cut places considerable downward pressure on the 2010 estimate of nominal compensation per non-agriculture employee, with a projected decline in the region of 2.8 per cent in 2010. The 2010 projection for compensation per employee has been revised sharply downwards, relative to that of the previous Quarterly Bulletin. This downward

**BOX A: Sectoral Pay Developments**

The first results from the CSO’s expanded quarterly earnings survey, the Earnings, Hours and Employment Costs Survey (EHECS), were recently published. This survey includes a 2-digit NACE breakdown and covers all sectors of the economy with the exception of agriculture, forestry and fishing. One of the key advantages of this survey is the enhanced comparability across sectors that it provides. The EHECS also includes more detail than was previously available on the various components of earnings, such as hourly earnings and weekly hours worked. This box provides a brief overview of the latest sectoral developments in pay, based on the results of the EHECS for the second quarter of 2009, focusing in particular upon the change in average weekly earnings and its composition.

**Table: Annual Change in Earnings Q2 2009**

Sector	Average Weekly Earnings	Average Hourly Earnings	Average Weekly Paid Hours
	%	%	%
Industry	0.6	4.4	-3.6
Construction	-1.3	4.0	-5.1
Wholesale & Retail Trade	-1.7	1.3	-2.9
Transportation & Storage	-3.5	-2.3	-1.2
Accommodation & Food Services	-1.5	0.6	-2.1
Information & Communication	0.1	1.1	-0.9
Financial, Insurance & Real Estate	-13.3	-11.6	-1.9
Professional, Scientific & Technical	-1.8	-1.6	-0.2
Administrative & Support Services	-0.6	1.1	-1.7
Arts, Entertainment, Recreation & Others	-1.2	1.2	-2.4

Analysis of the sectoral profile of annual developments in average weekly earnings in the second quarter reveals that the downward adjustment was broadly based, with declines across a range of sectors. A rise in average weekly earnings was, however, recorded during this period in five of the thirteen economic sectors; three of which relate to the public sector. As a result, the 1.1 per cent whole economy decline in average weekly earnings during the year to the second quarter was solely explained by developments in the private sector — average weekly earnings in the public sector rose by 1.3 per cent in the second quarter of 2009, while a decline of 3.1 per cent was recorded in the private sector. However, as highlighted in the main text, EHECS data on public sector pay does not include the public service pension levy. It is necessary to take the pension levy into account in a comparison of wage developments at a

sectoral level as public sector pay was effectively cut via the introduction of the pension levy. Accordingly, developments in the public sector are not included in this analysis, with the focus on developments in the private sector.

Considerable variation existed at a sectoral level in terms of the magnitude of the change in average weekly earnings in the second quarter of 2009, with the annual change ranging from a decline of 13.3 per cent to an increase of 0.6 per cent. The largest downward adjustment in average weekly earnings of 13.3 per cent took place in the financial services sector. Another sector witnessing a strong decline in average weekly earnings was the transportation & storage sector, with a fall of 3.5 per cent. An annual increase of 0.6 per cent in industrial average weekly earnings was, however, recorded in the second quarter of 2009.

As regards the composition of the adjustment in weekly earnings in terms of changes in hours, hourly earnings, or a combination of both, some variation exists. Only three of the ten economic sectors, namely, the transportation & storage sector, the financial, insurance & real estate sector and the professional, scientific & technical sector, recorded a fall in both hours and hourly earnings, year-on-year, in the second quarter of 2009. Reductions in average weekly hours worked were, however, observed in all sectors. This suggests that there has been a heavy reliance amongst firms upon adjusting hours worked as a means of reducing the wage bill amid tough operating conditions. Cuts in hours worked were particularly sharp in the construction and industry sectors, with reductions of 5.1 per cent and 3.6 per cent, respectively. This development is also consistent with firms reducing labour utilisation in line with cyclical downturn.

The broad-based decline in average weekly hours was, however, not accompanied by a proportional reduction in hourly earnings, with a whole economy increase in hourly earnings of 1.8 per cent. A breakdown of average hourly earnings by sector reveals that the sharpest increases were recorded in industry and construction, with increases of 4.4 per cent and 4.0 per cent, respectively. This suggests that the largest falls in average hourly earnings during the year to the second quarter were not observed in the sectors experiencing the sharpest contractions in employment. However, a key consideration in relation to the buoyant increases in average hourly earnings within industry and construction relates to changes in the composition of employment. A dramatic change in employment composition occurred in industry during the year to the second quarter of 2009, with almost 85 per cent of the 23,000 job losses in this sector relating to production, transport, craft and other manual workers. The

sharp fall in this category of workers was accompanied by a modest decline in the number of employees at management level. Such a dramatic change in the composition of employment places upward pressure on average earnings in industry and, as a result, the 0.6 per cent increase in average weekly earnings does not provide a true reflection of underlying changes in pay. A similar, albeit less pronounced, compositional effect was evident in the construction sector over the same period.

The largest reduction in average hourly earnings took place in the financial services sector, with a decline of 11.6 per cent, year-on-year, in the second quarter of 2009. Such an outturn is noteworthy given that average hourly earnings rose in almost all other sectors. The sharpness of the decline can, however, be almost entirely attributed to a cut of around two-thirds in irregular payments. The role of irregular earnings in driving movements in average hourly earnings is comparatively higher in the financial services sector as bonus payments tend to feature more prominently in pay in this sector. While the decline in irregular earnings was clearly most pronounced in financial services, year-on-year declines in irregular earnings were recorded in almost all sectors. This development reflects the fact that irregular earnings represent the most flexible component of pay. It is also necessary to briefly consider developments in hourly earnings excluding the irregular component as the importance of irregular earnings as a share of hourly earnings can vary significantly across sectors. Three of the ten economic sectors recorded a year-on-year reduction in hourly earnings excluding irregular earnings, with reductions of less than one per cent in two of these sectors. This suggests that the downward adjustment in hourly earnings has predominantly occurred in irregular earnings, the most flexible component of pay.



**Table 7: Inflation Measures — Annual Averages, Per Cent**

Measure	HICP	HICP excluding Energy	Services <sup>a</sup>	Goods <sup>a</sup>	CPI
2007	2.8	2.7	4.4	1.5	4.9
2008	3.1	2.6	3.4	2.9	4.1
2009	-1.7	-1.0	1.2	-4.1	-4.5
2010 <sup>f</sup>	-1.1	-1.7	0.4	-2.3	-1.3

<sup>a</sup>Goods and services inflation refer to the HICP goods and services components.

revision is almost solely driven by the inclusion of the public sector pay cut. Combining the outlook for wages with that of employment suggests falls in the non-agricultural pay bill of 10.5 per cent and 6.5 per cent are likely in 2009 and 2010, respectively.

## Inflation

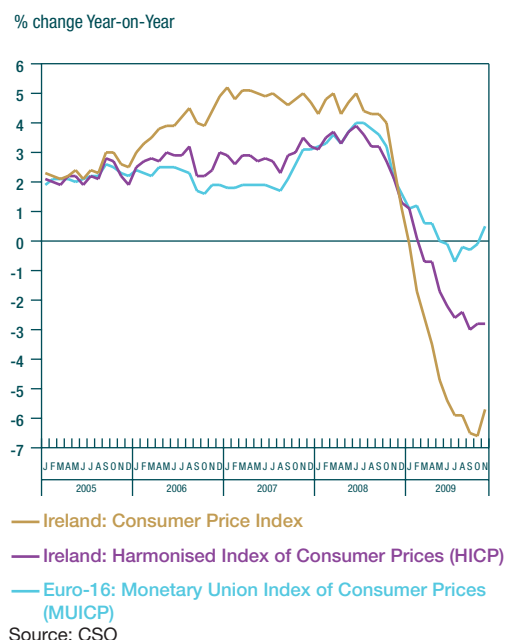
### Consumer Prices

Annual inflation, which is in the midst of a period of unusually high volatility, likely reached a trough in the final quarter of last year. According to the latest CSO outturns, the annual rate of HICP inflation, which excludes mortgage interest repayments, was -2.6 per cent in December while the annual rate of CPI inflation was -5.0 per cent. Movements in oil prices and mortgage interest rates have been important contributory factors to the short-run volatility in inflation; energy prices and mortgage interest repayments contributed

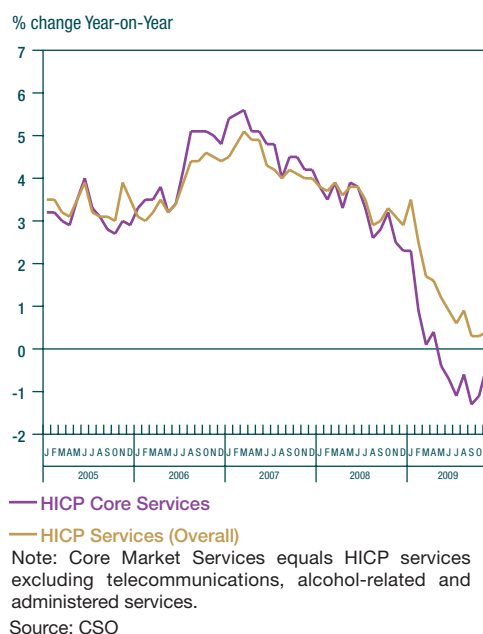
0.2 percentage points and -3.0 percentage points, respectively, to the annual CPI inflation rate of December. Core inflation measures, such as the HICP excluding volatile components such as energy prices and unprocessed foods, were also in the main negative during the same month suggesting more generalised price declines. Meanwhile, services inflation remained slightly positive after a prolonged moderation.

Oil prices have been characterised by strong volatility in recent years, with the euro price of oil 32.8 per cent lower in 2009 than the previous year. The effects of lower oil prices were most immediately felt in liquid fuel prices, with petrol and diesel prices down last year by 7.8 per cent and 18.3 per cent, respectively. Meanwhile, airlines passed on lower oil prices and offered numerous promotional fares to maintain volumes, with the result that airfares were down 9.1 per cent annually in 2009. There

**Chart 4: Consumer Prices**

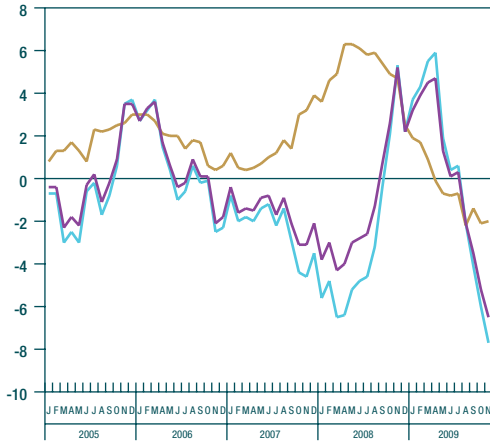


**Chart 5: Services Sector Inflation**



**Chart 6: Manufacturing Producer Price Inflation**

% change Year-on-Year



— Home Sales  
 — Total Manufacturing  
 — Export Sales

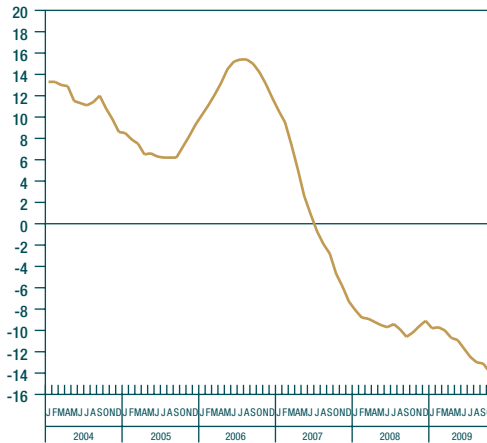
Source: CSO

has been some upward movement in airfares towards the end of the year but this is largely due to seasonal effects and an increase in baggage charges. The impact of oil prices on gas and electricity prices normally acts with a longer lag, and the annual average increases of 2.8 per cent and 1.3 per cent in 2009 reflected the 24 per cent euro oil price increase of the previous year. The full impact of the lower oil prices of 2009 on gas prices may not materialise until this year, with a fall of 15.7 per cent in average prices projected. Average annual electricity prices also look set to fall back during this year, to close to 2007 levels, providing a further timely boost to competitiveness.

During 2009, a squeeze on disposable incomes, a large jump in the savings rate and a substantial decline in employment, led to a sharp contraction in nominal spending. Retailers, aided by lower prices for UK imports due to the sharp depreciation of sterling, responded by lowering prices to stimulate demand. Retailers sought to lower prices from producers and wholesalers, resulting in further subsiding of supply chain inflationary pressures. The intensified competitive pressures were quite apparent in the food retail sector even when allowance is made for international food commodity price trends. As

**Chart 7: Permanent tsb / ESRI House Price Index**

% change Year-on-Year



— Houses Nationally

Source: Ptsb/ESRI

consumers became more price conscious and inclined to alter their shopping habits, the more established retailers introduced more aggressive price reductions in order to stem market share losses to discount retailers. As a result, food and non-alcohol beverage prices across the sector fell by a large cumulative 8.1 per cent in the year to December.

The estimated direct effect of the taxation measures contained in Budget 2010 on the annual HICP inflation rate for 2010 is for a decrease of between 0.2 and 0.3 percentage points. As households re-evaluate their financial positions following the Budget, the easing of uncertainty may provide some support to consumer confidence and to consumption during 2010, but it is still anticipated that the broader indirect impact of the Budget may contribute an additional -0.2 percentage points to the annual HICP inflation rate. Overall, labour market weakness, together with an anticipated further easing of supply chain inflationary pressures and continued disposable income constraints, are likely to apply ongoing downward pressure on prices. However, such downward pressure may be somewhat offset by positive contributions to the headline price level emanating from both administered services and energy prices.

**Box B: Base effects on annual HICP and CPI inflation rates**

Annual inflation rates tend to have more prominence in discussion of inflation developments than monthly inflation rates. It is important to keep in mind that changes in the annual inflation rates can be heavily influenced by base effects, particularly during the current period of relatively high volatility. Indeed, in recent years and over the projection horizon, base effects have dominated and will continue to dominate movements in both the annual HICP and CPI inflation rates. This Box will illustrate how base effects are defined, why it is important that allowance is made for base effects when interpreting changes in annual inflation rates from one month to the next, and how base effects contributed to annual inflation rates during 2009 and are likely to continue to affect annual inflation rates in 2010.

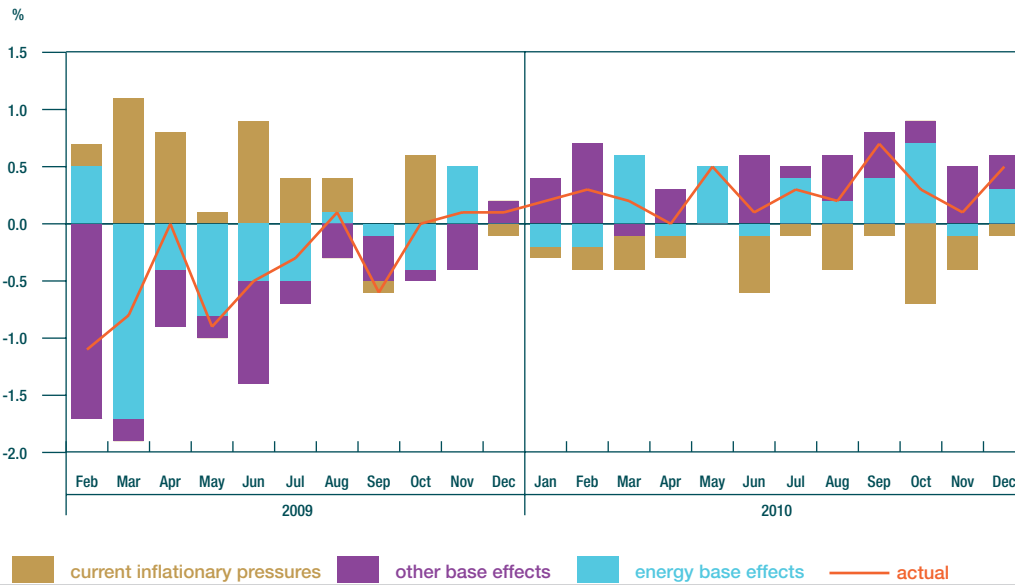
The *base month* of an annual rate of inflation for a given month is the same month one year earlier. A *base effect* is defined as the contribution to the change in the annual inflation rate in the given month that stems from that part of the month-on-month change in the base month that cannot be accounted for by typical changes including seasonal fluctuations. In other words, the base effect may be any out of the ordinary change in month-on-month inflation that relates specifically to the base month. In order to identify inflation developments that are more 'current' in nature, it is important to first disentangle any base effects. It is worth noting that, when central bank credibility is such that second-round effects are limited, the base effects will to a large degree only have a short-term impact on inflation and will not help to explain the underlying trend in inflation.

During the current period of relatively high volatility in inflation, the change in annual inflation rates from one month to the next tends to be heavily influenced by base effects. For example, although there was no change in the CPI on a monthly basis in November 2009, there was a sharp rise in the annual CPI inflation rate to -5.7 per cent, from a rate of -6.6

per cent the previous month. The large shift upwards in the annual outturn for November 2009 reflects the impact of a strong base effect (relating to the pass-through of a 50 basis points ECB base rate cut in November 2008) rather than any dramatic developments in inflationary pressures during the month.

The unusually high volatility in the annual Irish HICP inflation rate in recent years can be explained to a large extent by the strong volatility in international commodity prices. Energy base effects and, to smaller degree, food base effects were quite prominent during 2009 and are likely to continue to be during the course of 2010 (see Chart A). Both energy base effects and other base effects were pushing the annual inflation rate downwards during much of 2009 and offset the positive contribution from more current inflationary pressures. The latter contribution subsided as 2009 progressed reflecting the continued contraction in economic activity. In contrast to last year, the contribution of base effects is set to work in the opposite direction during 2010, offsetting the negative contribution from more current inflationary pressures. The net effect will see the annual HICP inflation rate gradually rise during this year.

**Chart A: Contribution of Base Effects to the Monthly Changes in Annual HICP Inflation**



Note: For a given month, the base effects are calculated as the deviation of the monthly change twelve months previously from the 5-year average monthly change for that month.

Along with base effects arising from volatility in energy prices, the impact of changes to mortgage interest repayments on the annual CPI inflation rate was important last year (see Chart B). The mortgage interest base effect was pushing the annual CPI inflation rate

downwards during the first three quarters of 2009, offsetting the positive contribution from inflationary pressures pertaining during that period. As noted above, the contribution from inflationary pressures subsided as 2009

**Chart B: Contribution of Base Effects to the Monthly Changes in Annual CPI Inflation**



Note: Other base effects include significant energy base effects.

progressed reflecting the continued contraction in economic activity. In contrast to last year and with a similar profile to the energy base effects impact, the contribution of base effects from mortgage interest repayments is set to work in the opposite direction during 2010, offsetting the negative contribution from inflationary pressures. The net effect will see the annual CPI inflation rate also gradually rise during this year.

In conclusion, due to the impact of base effects arising from volatility in energy and mortgages interest rates last year, movements in both the

annual HICP and CPI inflation rates will mask the underlying pattern of inflation during 2010. Indeed, of the projected increase in the annual HICP inflation rate between December 2009 and December 2010 of 3.3 percentage points, 6.2 percentage points will reflect the cumulative upward impact of base effects while actual inflationary pressures will account for -2.9 percentage points. Similarly, of the projected increase in CPI to the end of 2010 of 6.0 percentage points, 11.6 percentage points will reflect the cumulative upward impact of base effects while actual inflationary pressures will account for -5.6 percentage points.

There are signs that some downward external price pressures are beginning to reverse. According to future markets, oil prices in dollars are projected to be about 30 per cent higher on average in 2010. The fall in piped gas prices of 8 per cent in February may alleviate some upward pressure on energy prices but carbon levies will have a partial offsetting impact. The average HICP price level is now projected to fall by 1.1 per cent this year, with this fall reflecting to some extent a negative carryover from 2009. Upward base effects are set to dominate movements in both annual HICP and CPI inflation rates and the impact of such base effects on headline inflation rates is considered in Box B above. The outlook for CPI inflation this year will depend to a degree on the path of interest rates. In its forecasts, the Bank makes the technical assumption that interest rates move in line with market expectations. Taking into account market expectations of increases in ECB base rates towards the latter part of this year, the projection for the average rate of annual CPI inflation is -1.3 per cent for 2010.

### Property Prices

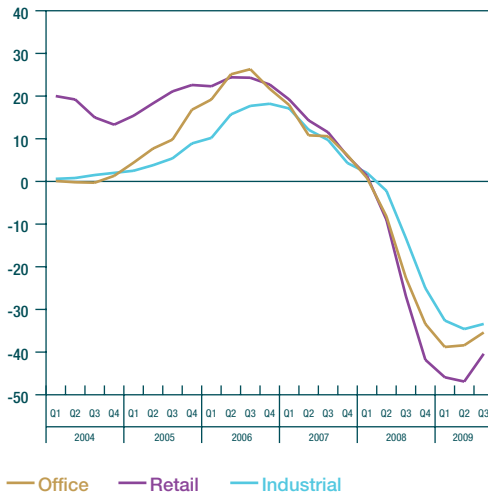
The ESRI/PTSB house price index indicates a cumulative fall in house prices of 26.6 per cent between the peak of early 2007 and October last year. Although quality adjusted and based on actual transactions, these data come with some important caveats, in particular, the unusually low number of transactions of late

and the fact that the index lags the market by some months. That said, monthly declines in house prices of between 1 and 2 per cent were recorded during much of 2009 as weak sentiment outweighed a considerable easing in affordability pressures. Private rents fell by over 24.4 per cent between the peak of April 2008 and the end of last year. The large decline in rents reflects sharp falls in disposable income and employment, higher stocks of properties available to rent and the re-emergence of net outward migration. The rate of decline in rents has slowed recently, which may be attributed partly to a fall of about 10 per cent in the supply of rental properties in the three months to October 1st, according to Daft.ie data. However, with a significant oversupply of rental accommodation, estimated at over 20,000 units, still remaining and the prospect of continued outward migration, the decline in rents will likely continue into this year.

Overall commercial property prices have fallen by a cumulative 52.1 per cent in nominal terms between their peak of late 2007 and the third quarter of last year, based on data from the Society of Chartered Surveyors/ Investment Property Databank. The recent declines in property values across all sectors remained quite steep, with quarter-on-quarter falls of between 8 per cent and 9 per cent recorded for each sector during the third quarter of last year. According to the Jones Lang LaSalle Irish Rental Index, rents in the retail sector fell by a cumulative 17.5 per cent between their peak of

**Chart 8: SCS / IPD Irish Commercial Property Index**

% change in capital values, Year-on-Year



Source: SCS/IPD

the first quarter of 2008 and the third quarter of 2009. Rents in the office and industrial sectors began to decline during the second half of 2008 as important trading partners moved into recession but the subsequent declines were steeper; the cumulative declines from peaks were 18.4 per cent and 14.3 per cent, respectively, providing a significant boost to international cost competitiveness. The ban on upward only rent reviews comes into effect from the end of February, but it is not retrospective and it may have only a modest effect in the short-term.

### Competitiveness

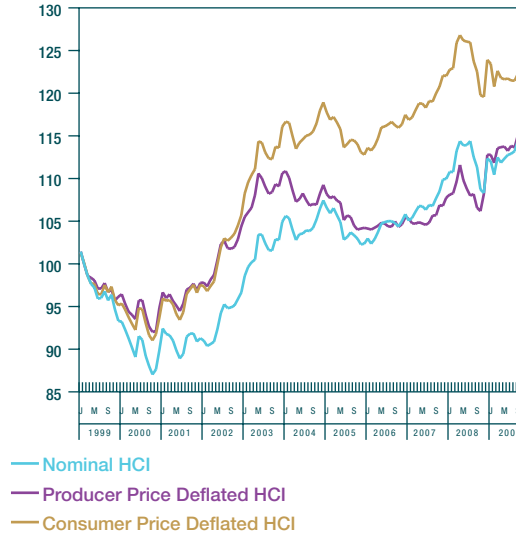
There are increasing signs that the overall competitiveness position of the economy is improving following a number of years in which Ireland lost competitiveness relative to our main trading partners. In particular, the significant downwards adjustments in prices and wages are providing a timely boost for exporters, made all the more necessary by the continued appreciation of the euro exchange rate in 2009. The outlook for this year is for further price and wage reductions, which should help to improve international price and cost competitiveness.

### Exchange Rate Developments

The euro appreciated significantly against sterling over the course of 2009 by 11.9 per

**Chart 9: Harmonised Competitiveness Indicators**

Base: Quarter 1, 1999 = 100

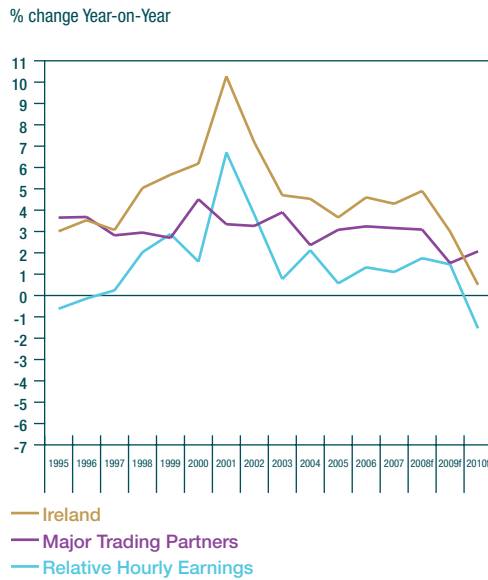


Sources: Central Bank of Ireland and ECB

cent on average and ended the year trading at the £0.90 mark. This followed a strong appreciation in the euro sterling exchange rate in 2008, which has meant that over the past two years, the euro has gained in value by approximately 30 per cent against sterling. This has serious implications for the indigenous manufacturing sector whose principal export market is the UK, with the latter market accounting for approximately half of all indigenous manufacturing exports<sup>3</sup>. In contrast, the euro declined on average by 5.2 per cent in value against the dollar over the course of 2009, although this masks the fact that the euro appreciated significantly in the fourth quarter of the year by 12.2 per cent annually. The movements in the euro exchange rate against Ireland's major trading partners can be summarised by the nominal Harmonised Competitiveness Indicator (HCI), which can be interpreted as an effective exchange rate. The nominal HCI appreciated in year-on-year terms by 0.9 per cent in the first eleven months of 2009. In contrast, the consumer price deflated HCI declined by 1.4 per cent over the same period, as a result of lower inflation in Ireland relative to our trading partners, pointing to a modest improvement in Irish price competitiveness.

<sup>3</sup> According to the CSO Census of Industrial Production for 2007, 47 per cent of Irish owned manufacturing firms' exports went to the UK.

**Chart 10: Hourly Earnings in Manufacturing (in Local Currency)**



Source: Central Bank of Ireland calculations

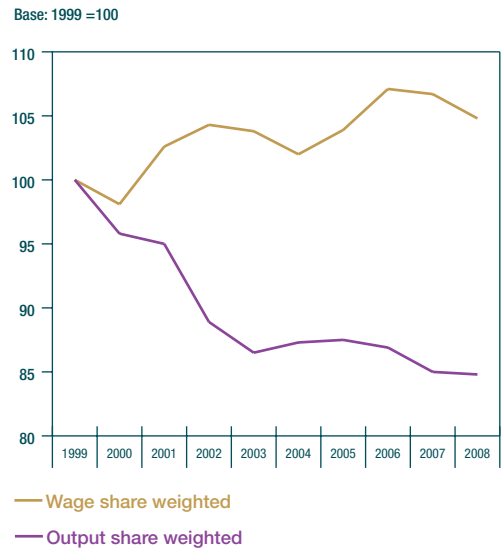
**Productivity and Cost Competitiveness**

Labour retention in the face of output declines had resulted in falling measured productivity in 2008; in contrast, the sharp declines in employment in 2009 resulted in a modest increase in productivity last year, measured on a GDP basis<sup>4</sup>. In light of recent trends and the macroeconomic and labour market outlook for 2010, positive productivity growth of 2.9 per cent is projected for this year.

Recent and prospective productivity developments coupled with the outlook for wages should lead to a further improvement in Irish unit labour cost competitiveness. Unit labour costs are expected to decline by 5.5 per cent this year, following an estimated decline of 3.8 per cent in 2009. These declines follow robust increases in unit labour costs in the 5-year period to 2008, when unit labour costs increased by 4 per cent per annum on average. The outlook for unit labour costs compares favourably with developments in Ireland's main trading partners. In the euro area, for example, nominal unit labour costs increased by an estimated 3.3 per cent last year, with a decline of 0.4 per cent projected for 2010, according to the latest European

<sup>4</sup> On a GNP basis, productivity remained negative in 2009, reflecting the very sharp contraction in real GNP.

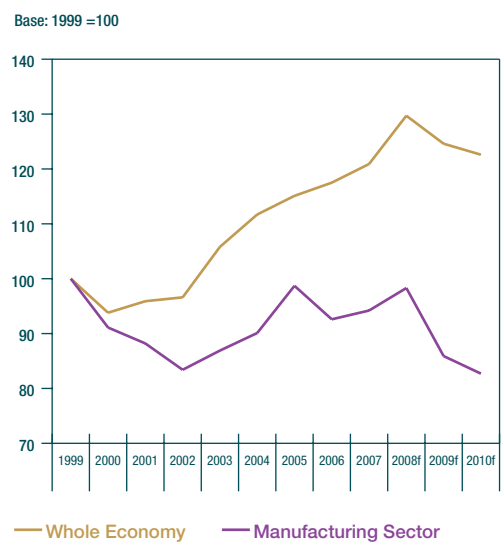
**Chart 11: Unit Wage Costs in Manufacturing**



Source: Central Bank of Ireland calculations

Commission estimates. These projections would point to an improvement in Ireland's labour cost competitiveness position relative to our major trading partners and would also leave the economy better placed to benefit from a global economic upturn.

**Chart 12: Irish Unit Wage Costs Relative to Main Trading Partners (in Common Currency)**



Source: Central Bank of Ireland, ECB and AMECO

## Public Finances

### The 2009 Outturn

The magnitude of the deterioration in the public finances last year was captured by the sharp increase in the Exchequer deficit to €24.6 billion, up from €12.7 billion in 2008 (Table 8). The end-year Exchequer outturn however, was about €600 million better than was predicted in the December Budget reflecting an improvement in tax receipts in the final month of the year.

On the revenue side, tax receipts fell sharply in 2009 to €33 billion, a fall of 19 per cent in annual terms. Most of the major tax heads underperformed, with the two largest taxes, VAT and income tax down by 20.6 per cent and 10.2 per cent, year on year, respectively. Capital taxes remained extremely weak last year reflecting the continuing contraction in the housing sector. On the upside, corporation and excise taxes came in ahead of target in 2009, although still registering sharp year-on-year declines. The end-year tax take was approximately €500 million better than expected in last December's Budget. Despite this, taxes by year end had reverted back to 2003 levels.

On the expenditure side, total net voted spending amounted to roughly €47 billion last year, a decline of 4.4 per cent (€2 billion) relative to 2008<sup>5</sup>. Within this, net voted current spending amounted to €40.3 billion, which was down 1.2 per cent in year-on-year terms. On the capital side, net voted expenditure amounted to €6.9 billion in 2009, a fall of 19.3 per cent year-on-year. In contrast, non-voted capital expenditure increased sharply by €5.3 billion, to reach €7.8 billion in 2009, due to payments to Anglo Irish Bank and the front loading of the annual contribution to the National Pensions Reserve Fund. Central Fund expenditure also increased sharply due to much higher debt servicing costs, which increased by over €1 billion in 2009 (Chart 13). In contrast to the trend in tax receipts, total expenditure by year end, was approximately 70 per cent above 2003 levels.

<sup>5</sup> Expenditure totals relate to figures published in the end 2009 Exchequer Statement.

When the end-year Exchequer data are factored in, the broader General Government deficit<sup>6</sup> for 2009 is likely to come in below the 11.7 per cent of GDP Budget target, perhaps by about ¼ per cent of GDP. In terms of borrowing, the overall debt to GDP ratio is estimated to have increased to 64.5 per cent of GDP last year, up from just 25 per cent at end-2007. That said, when account is taken of cash balances held by the Exchequer and the value of the National Pensions Reserve Fund, the net debt position is lower at an estimated 39.5 per cent of GDP at end 2009.

### Exchequer Financing

The Exchequer deficit of €24.6 billion last year was financed by very high levels of Government borrowing. This borrowing was mainly financed through the issuance of Government bonds by the National Treasury Management Agency (NTMA) and overall the NTMA raised roughly €35 billion in long-term funding in 2009.

### Budget 2010

The 2010 Budget was presented to the Dáil on December 9th against a very challenging economic background, with an estimated pre-Budget General Government Deficit of 11¼ per cent of GDP for 2009 and 13½ per cent in 2010, despite the introduction of significant consolidation measures, amounting to approximately 5 per cent of GDP, since mid-2008. As mentioned above, tax revenues in 2009 reverted back to around 2003 levels and were down €14 billion, or by 30 per cent since 2007.

Having predominantly focused earlier in the adjustment process on taxation and levy increases, the 2010 Budget consisted of a €4 billion expenditure based consolidation package (just over €3 billion net)<sup>7</sup>, with only minimal changes on the taxation side, with the aim of stabilising the General Government

<sup>6</sup> The Exchequer Balance measures the performance of Central Government on a "cash basis". The General Government Balance (GGB) measures all arms of Government on an "accruals basis". The GGB is the standard measure used by the EU in assessing and comparing fiscal performance.

<sup>7</sup> Budget 2010 is estimated to have a dampening effect on economic activity, with negative revenue buoyancy of about €900 million, although this is offset to a degree by projected lower interest costs of €200 million.



**Table 8: Outturn for 2009 and Budgetary Plans for 2010**

	2008 €m	2009 €m	% Change	2010 €m	% Change
<b>Current Expenditure</b>					
— Central Fund Services <sup>a</sup>	3,936	4,992	26.8	6,932	38.9
— Net Voted Expenditure <sup>b</sup>	40,757	40,256	-1.2	40,191	-0.2
<b>Total</b>	<b>44,693</b>	<b>45,248</b>	<b>1.2</b>	<b>47,123</b>	<b>4.1</b>
<b>Current Revenue</b>					
— Tax revenue	40,777	33,043	-19.0	31,050	-6.0
— Non-tax revenue <sup>c</sup>	847	836	-1.3	2,355	181.7
<b>Total</b>	<b>41,624</b>	<b>33,879</b>	<b>-18.6</b>	<b>33,405</b>	<b>-1.4</b>
<b>Current Budget Balance</b>	<b>-3,069</b>	<b>-11,369</b>		<b>-13,718</b>	
<b>Capital Budget Balance</b>	<b>-9,645</b>	<b>-13,272</b>		<b>-5,062</b>	
<b>Exchequer Balance</b>	<b>-12,714</b>	<b>-26,641</b>		<b>-18,780</b>	
<b>General Government Balance (% of GDP)<sup>d</sup></b>	<b>-7.2</b>	<b>-11.7</b>		<b>-11.6</b>	
<b>Source and Application of Funds</b>					
Total (Borrowing)/Repayments	-30,311	-24,474			
Total Increase in Exchequer Deposits	17,597	-167			
<b>Exchequer Balance</b>	<b>-12,714</b>	<b>-24,641</b>			

<sup>a</sup>Debt servicing, judicial salaries and pensions and EU Budget contribution.

<sup>b</sup>Government current expenditure on areas such as Social Welfare, Health, etc.

<sup>c</sup>Central Bank surplus income, National Lottery surplus, interest and dividends. The increase in 2010 is primarily driven by receipts from the Credit Institutions Scheme 2008.

<sup>d</sup>Budget 2010 estimate.

Deficit in 2010 at 11.6 per cent of GDP (Table 8). In Exchequer terms, this translates into a deficit of €18.8 billion.

The main adjustments on the expenditure side in Budget 2010 were as follows:

- Public Sector Pay: €1.0 billion in payroll savings through tiered pay cuts;
- Social Welfare: €0.8 billion in savings;
- Other current expenditure savings of €1.3 billion;
- Capital savings amounting to €1.0 billion.

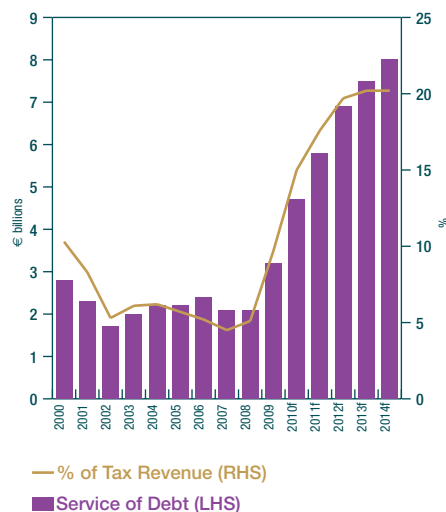
Despite these consolidation efforts, significant pressures remain on the current expenditure side due to the operation of automatic stabilisers coupled with a much higher national debt interest burden, as evidenced by a further sharp increase in central fund expenditure in 2010 (Table 8). In terms of the latter, higher national debt interest repayments will become an increasing drag on resources in the coming years, rising from €2.5 billion in 2009, or

approximately 8 per cent of tax revenue to a projected 20 per cent of tax revenue by 2014, according to Budget 2010 (Chart 13). These pressures on the current expenditure side emphasise the necessity to keeping to a viable medium-term convergence path.

The decision to tackle the deficit through reducing expenditure was taken in the context of falling prices and already high rates of effective taxation. In terms of the former, the fall in prices mean that Government can pay less for the same level of services and maintain the real value of transfers at a lower nominal cost. In addition, the decision to reduce expenditure accords with the lessons from Ireland's experiences in the 1980s, and also from international evidence, that carefully targeted and prioritised expenditure-based consolidation measures are generally more effective than an over-reliance on tax based solutions. In this context, Budget 2010 is a significant step in restoring stability to the public finances.

The mechanical effect of the reduced net spending in the Budget on aggregate demand

Chart 13: Interest Expenditure



Source: Budget 2010 and Central Bank Estimates

is likely to exert a negative impact on growth in 2010, although this could be offset by an improvement in consumer confidence and a more positive international market outlook on the Irish economy<sup>8</sup>. The taxation measures in Budget 2010 are likely to exert further downward pressure on consumer prices this year with a direct effect of about 0.3 percentage points.

### Ireland — Stability Programme Update

An 'Updated Stability Programme' (SP) for Ireland was also included in Budget 2010. This

<sup>8</sup> In the context described here, the increase in the savings ratio in Ireland in recent years may partly have been driven by concerns about government borrowing and the potential future tax liability. Therefore, concerted action to improve the government finances may limit the increase in savings by giving confidence that the fiscal outlook is improving.

showed revised macroeconomic and fiscal projections covering the period to 2014. The macroeconomic outlook in the SP, projects a further contraction in GDP by 1.3 per cent this year, before a return to positive growth of 3.3 per cent in 2011. Over the period 2011-2014, average annual GDP growth of 4 per cent is forecast. The labour market outlook is projected to improve, albeit more gradually, with the unemployment rate remaining in double digits until 2014. Consumer price inflation is projected to average 1.6 per cent per annum over the 2011-2014 period.

### Fiscal Stance of Budgetary Policy

In order to assess the underlying impact of the Budget on the economy, it is necessary to examine the change in the structural primary budget balance, which is, the fiscal position adjusted for the economic cycle, interest payments and excluding temporary factors. The Department of Finance estimate that whilst the actual budget deficit will be 11.6 per cent of GDP in 2010, the structural primary deficit will be 6.5 per cent in 2010, as compared with a deficit of 7.2 per cent in 2009. This projected improvement in the structural deficit indicates a tightening in budgetary policy in 2010 with the aim of stabilising the General Government Deficit this year. Furthermore, the structural deficit is projected to improve further by an annual average of 1.7 per cent between 2011 and 2014. This suggests that total structural corrections will amount cumulatively to 7.6 per cent of GDP over the period of 2010 to 2014, in order to bring the General Government Deficit below the 3 per cent of GDP Stability and Growth Pact deficit limit by 2014, the deadline set by the European Commission.

# Monetary and Financial Market Developments

## Overview

In the final quarter of 2009, financial markets globally continued to recover as a number of positive macroeconomic developments led to more confidence that the economic recovery would be sustained. While recovery was the benchmark scenario, risks to this scenario were still considered significant. This was particularly the case as investors reacted nervously to developments in Dubai and in the sovereign debt market in the euro area from mid-November 2009. These events highlighted more fundamental concerns about the pace and distribution of the economic recovery in the near future, as both monetary and fiscal support measures cannot be sustained at their current levels indefinitely.

The equity market rally that started in March 2009 slowed over the final quarter of the year, as investors sold off more risky asset classes from mid-November. This particularly impacted on equities in the financial sector. Debt market funding has, however, improved for financial institutions, including those resident in Ireland. Meanwhile government bond yields began to rise marginally towards the end of 2009. This was more in response to the expected increase in supply of sovereign debt in the market in 2010, as many governments will run significant fiscal deficits, than more confidence in a robust economic recovery or expected inflationary pressures. Yields on virtually all euro-area sovereign bonds, including the German Bund, increased over the quarter, while spreads over the Bund increased for some member states, issuance over the period. During the final quarter of 2009, the euro area sovereign bond market was driven by concerns over the fiscal position in Greece.

The major central banks, including the ECB, have continued to maintain a very accommodative monetary policy stance. This has contributed to an improved environment in money markets, which, in general, remained stable over the final quarter of 2009. In the euro area, risk spreads in the inter-bank market are now back to levels last seen in early 2008. The level of inter-bank borrowing rates remain at historic lows, with both the Eonia and the 3-month Euribor remaining consistently below the ECB main refinancing rate over the period. This sustained normalisation in the money markets has led the Governing Council to outline a gradual exit strategy from the non-standard support measures introduced during the crisis. Meanwhile market participants expect inter-bank lending rates to increase marginally through 2010.

While the reductions in wholesale money market rates since autumn 2008 were, in general, passed through to high street lending rates, this pattern has now begun to reverse. High street lending rates appear to have passed the bottom of the current cycle, as indications that they are increasing have become more evident. This is particularly so when the expected increase in inter-bank lending rates and the impact of potential losses as a result of bad debts are considered.

The volume of credit being advanced in the Irish economy has declined also. Headline private-sector credit (PSC) fell by 5.3 per cent in the year ending November 2009. Valuation effects, such as increased write-downs and provisions for bad and doubtful debts account for most of the recent fall in headline credit, and when these are accounted for the decline in the net flow of credit over the period was 1.7 per cent. Similarly, excluding valuation effects, loans to the private sector in the euro area as a whole declined by 0.7 per cent.

In November 2009 the National Asset Management Agency (NAMA) Bill was passed by the Oireachtas. NAMA will, via a special purpose vehicle (SPV), purchase land and development loans from participating banks by issuing them with government backed bonds<sup>1</sup> from February 2010. This process should remove uncertainty surrounding the participating banks' balance sheets and further enhance their funding position. It also front-loads the losses participating banks face on these land and development loans and will allow for more immediate transparency on their capital requirements. Subsequent

<sup>1</sup> NAMA will have a significant impact on the statistics published by the Central Bank. The affected series, particularly relating to PSC, will be made available both including and excluding the impact of NAMA.

recapitalisation should then increase these banks' capacity to lend to the real economy.

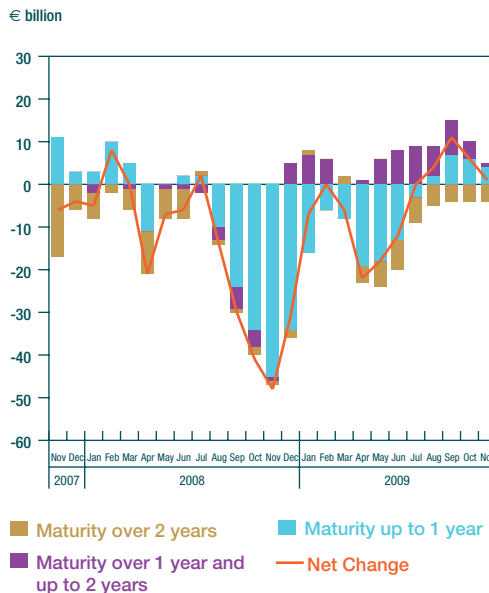
## A: Financial Markets

### Bank Funding and Money Market Developments

The wholesale bank funding markets continued to normalise during Q4 2009 as supporting measures provided by monetary authorities and governments remained in place. Access to debt and equity markets by financial institutions has, in general, improved with the aid of various guarantee schemes currently being offered by some governments. Government backed support schemes are also helping to remove uncertainty around bank balance sheets and, in turn, promote confidence for potential investors. Debt securities issuance by monetary financial institutions (MFIs) has begun to rise across the euro area and a number of institutions have announced plans for new equity offerings.

The situation has also improved for Irish resident MFIs, with outstanding debt securities issued increasing on a quarterly basis since mid-2009. This follows a sharp contraction in the amount of outstanding debt securities issued by these institutions from mid-2008 through to early 2009. The improvement up to November 2009 was driven by increases in debt securities issued with a maturity of less than two years, with domestic banks being particularly active in this market given the scope of the original Government guarantee from autumn 2008. The contraction in debt securities seen at that time was in the short-term (i.e. less than one year maturity) notes. The issuance of these securities has, however improved significantly, and has been increasing on a rolling 3-month basis since August 2009. This is consistent with the Irish results of the Q4 2009 Bank Lending Survey (BLS), which included questions on access to wholesale funding. Irish respondents to the BLS noted that access to wholesale unsecured money markets as well as the market for debt securities improved in the final quarter of

**Chart 1: Net Issuance of MFI Debt Securities (Rolling 3-month change)**

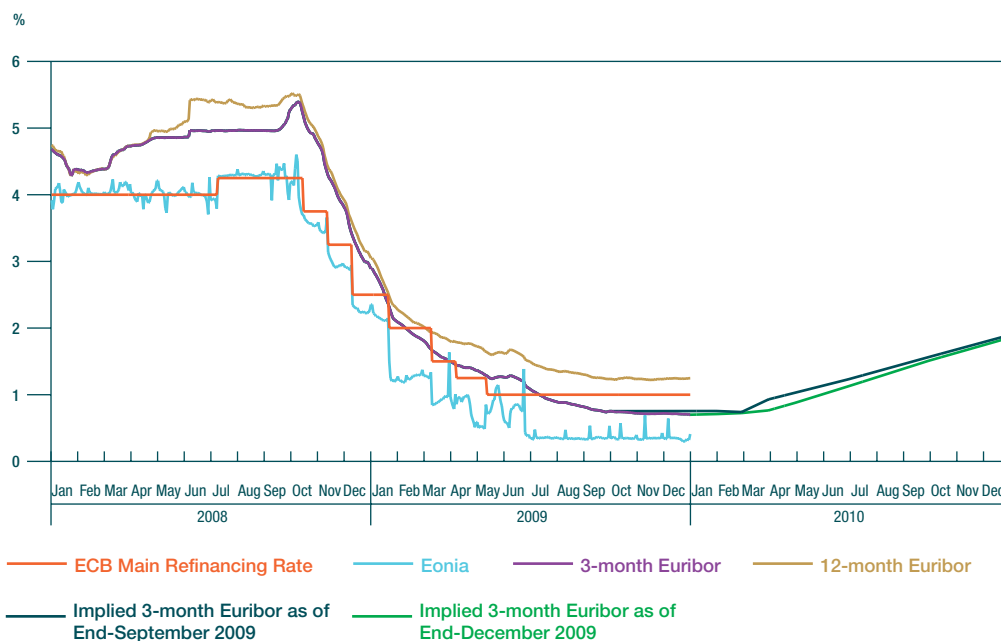


Source: CBFSAI.

2009 and that conditions are expected to improve further during the first quarter of 2010 across the maturity spectrum.

The non-standard measures adopted by the Eurosystem since the onset of the financial crisis continued to contribute to the improvement in money market conditions during Q4 2009. In refinancing operations the Eurosystem continued to supply counterparties with ample liquidity, through its full allotment policy for its main refinancing (MRO) and enhanced longer-term refinancing operations (LTRO). Amounts allotted at the refinancing operations have, in general, declined following the first 12-month LTRO in June 2009 and the subsequent improvement in inter-bank markets. Demand did, however, increase at end-December, as would be expected at year end. The last 12-month LTRO was also offered during December, with €96.9 billion allotted following €442 billion and €75.2 billion of liquidity provided at this maturity in June and October 2009 respectively. Lending to credit institutions by the Irish Central Bank as part of the Eurosystem's monetary policy operations increased during December to

Chart 2: Main ECB and Money Market Interest Rates



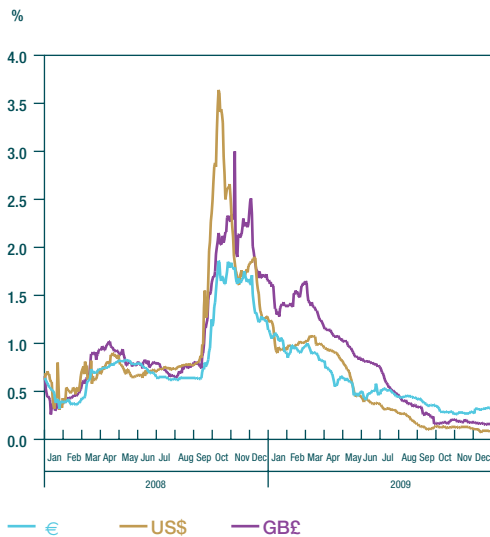
Source: CBFSAI and Thomson Reuters Datastream.

€92 billion following consecutive monthly declines since June. The composition of the lending has shifted since June, with on average 90 per cent of the funds being provided in LTROs, compared with approximately 60 per cent on average before June. Within the LTROs, demand has tended to be higher for the 12-month operations. Meanwhile, the covered bond purchase scheme provided assistance to a key segment of the credit markets, with approximately €28 billion of the planned €60 billion outlay completed by the end of 2009.

The ECB MRO rate remains unchanged at 1 per cent. Unsecured inter-bank lending rates across all maturities were relatively stable through Q4 2009 at historic lows. The overnight Eonia rate and the 3-month Euribor rate were consistently below the ECB MRO during the period as conditions in the money market remained calm. According to the implied path derived from 3-month Euribor futures, market participants expect interest rates to rise over the coming year from their current low base. The expected trajectory of the 3-month Euribor did not, however, change materially from end-September to end-December 2009, reflecting more stable expectations of market participants. Consistent with this outlook, unsecured euro-area money market rates also remained stable during Q4 2009, following their

decline through most of 2009. Spreads between unsecured and secured rates, as represented by Euribor-OIS spreads, declined early in the quarter and are now at levels last seen before the bankruptcy of US investment bank Lehman Brothers. The Euribor-OIS spread peaked at just under 200 basis points in October 2008 and by end-December 2009 stood at less than 35 basis points, a level last seen in January 2008.

The Governing Council has contributed to the increased level of certainty in euro-area money markets by outlining the gradual exit strategy from the non-standard measures introduced during the financial crisis. This strategy includes the winding down of the LTROs at the 12-month and 6-month horizon, with the final 12-month LTRO offered in December 2009 and the final 6-month LTRO due to be offered in March 2010. The full allotment policy with the fixed rate tender process will also be maintained during the first quarter of 2010. The gradual removal of the non-standard support measures, which alongside the reduction in key ECB interest rates have assisted in reducing money market rates, risk spreads and retail lending rates, should ensure that the effect of the support measures will continue to feed through to credit provision to the euro area economy, further promoting recovery.

**Chart 3: 3-Month Euribor (€) and Libor (GB£, US\$) Spreads versus Overnight Index Swaps**

Source: Thomson Reuters Datastream.

### Sovereign Debt Market

During Q4 2009 euro area ten-year government bond yields increased marginally in the main, including that of the German Bund, while spreads over the Bund rose for some member states. Much of this increase happened during December, as yields on euro area government bonds either continued on their downward trajectory or remained relatively stable during October and most of November. This downward trend had persisted through the summer and autumn of 2008 despite more confidence about the overall economic outlook and positive data showing the euro area as a whole exiting recession in Q3. Demand for government debt had, however, been strong through 2009, which led to the lower yields. The high demand for government debt reflected the relatively steep yield curve as short-term interest rates remained at historical lows and the search for higher returns at longer maturities began to limit the scope for increased long-term yields. There was also high demand for government bonds by MFIs as they deleveraged their balance sheets and moved into less risky and more liquid assets.

Euro area sovereign bond developments from mid-November 2009 onwards, however,

**Chart 4: Euro Area Ten-Year Government Bond Yields**

Source: Thomson Reuters Datastream.

changed direction, with yields and CDS spreads beginning to move upwards. This has been particularly related to the increased concern over the fiscal position in Greece, which has led to a general rise in yields in recent weeks. The markets are also taking into account the fact that the supply of government debt will increase substantially next year, and may exceed demand, as most euro area member states will be running significant fiscal deficits. This concern is even more relevant for the UK and the United States, whose monetary authorities have announced plans to scale down their current programmes of direct gilt and Treasury bond purchases.

In this uncertain environment, Irish government bond yields and spreads over their German equivalents remained relatively stable over Q4 2009. The ten-year yield averaged 4.8 per cent over the period, while the five-year yield averaged 3.2 per cent, and the slope of the yield curve was relatively unchanged on Q3. Irish government bond spreads over comparable German Bunds increased towards the end of Q4, in line with the general trend of many euro area sovereigns. Irish spreads over German Bunds remain among the highest in the euro area, but have declined significantly

**Chart 5: Irish Government Bond Yields and Spreads over German Equivalents**



Source: Thomson Reuters Datastream.

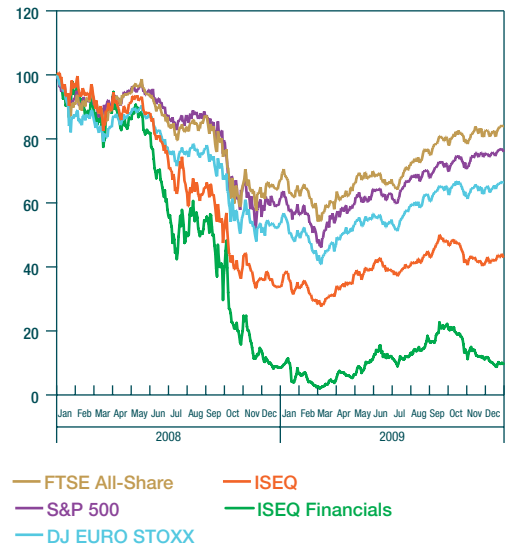
since their post-1999 peak of 270 basis points in March 2009.

### Equity Markets

International equity markets continued their upward trend in Q4 2009, although the pace of recovery was more moderate than in Q2 and Q3. The gains that were recorded in the major markets in Europe and the United States were driven by more positive than expected economic data and continued positive earnings expectations for major listed companies. During November and into December 2009, however, equity markets were less buoyant as concerns over the robustness of the global recovery, and in particular the likely trajectory of returns in the financial sector, led to a sell-off of more risky asset classes. The announcement of the proposed moratorium on debt repayments by Dubai World, a holding company backed by the Dubai Government, reinforced and exacerbated this view. As a result stock market volatility increased somewhat in the second half of Q4 2009, but remains much lower than at the height of the crisis in 2008 and is now generally back to long-run averages.

Unlike the major equity market indices, the ISEQ fell by approximately 10 per cent in Q4 2009 compared with Q3 2009. On an annual

**Chart 6: Irish and International Share Price Indices (December 2007 = 100)**



Source: Thomson Reuters Datastream.

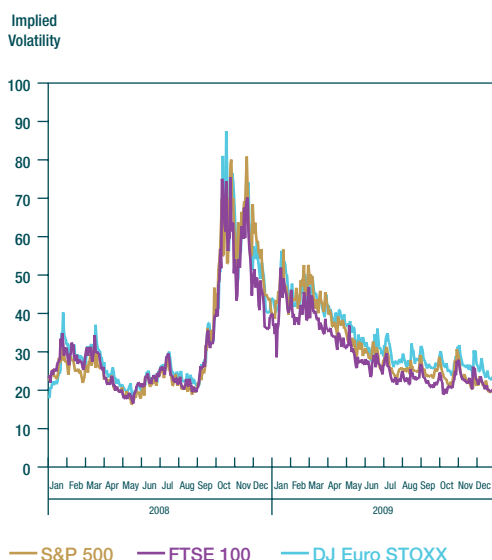
basis, however, the ISEQ increased by 27 per cent in 2009, mirroring the trend in the major indices. The performance of the ISEQ during Q4 mostly related to the reduction in the value of financial sector stocks, which reflected both domestic and international developments. Domestically, the announcement that the purchase of loans from participating banks by NAMA was being delayed until early 2010, as well as more transparency on the expected losses to be realised by participating banks, weighed somewhat on Irish financial share prices. Financials were, however, lower globally as investors re-evaluated the sustainability of the significant earnings posted by the financial sector during 2009, given the potential reduction of monetary and fiscal support and the credit losses expected to be realised in 2010. The impact of the restructuring within the industry in the EU to comply with competition and state aid regulations and the need for future rights issues to meet capital requirements also affected financial sector equities in Europe during Q4 2009.

### Foreign Exchange Developments

On a quarterly average basis the euro strengthened against the US dollar and sterling during Q4 2009 compared with Q3 2009, by 3.3 per cent and 3.8 per cent respectively. For the dollar rate, this continued the trend of

appreciation of the euro evident through most of 2009. On an annual average basis, however, the euro traded at 5.2 per cent below its 2008 level vis-à-vis the dollar during 2009, as it was still regaining ground from the significant depreciation in late 2008 when investors bought into the dollar as a safe haven currency during the height of the crisis. However some of the euro's appreciation was reversed in the last weeks of 2009, which saw a similar trend to that of the previous year as investors became more confident of a sustained economic recovery in the US. During Q4 2009 the euro/US dollar exchange rate was less volatile than the preceding quarters, as was the euro/sterling exchange rate. The euro appreciation against sterling during Q4 on a quarterly average basis reversed sterling gains seen in Q2 and Q3. On an annual average basis, the euro appreciated by 12 per cent against sterling in 2009, as the UK continues to face more challenging fiscal and general economic conditions than the euro area as a whole. Meanwhile the euro depreciated slightly against the Japanese yen on a quarterly average basis in Q4 2009, but fell by 14.5 per cent on an annual average basis for 2009 as a whole, as the strong move into the yen that took place during Q4 2008 was not reversed.

**Chart 7: Implied Equity Market Volatility**



**Source:** Thomson Reuters Datastream.

**Note:** S&P 500 is the implied volatility of S&P 500 options taken from the VIX index. FTSE 100 is the implied volatility of FTSE 100 options taken from the FTSEIX index. DJ Euro STOXX is the implied volatility of DJ Euro STOXX 50 options taken from the VSTOXX index.

## B: Money and Credit

### Monetary Aggregates

The euro area broad money supply (M3) contracted by 0.2 per cent on an annual basis in November 2009, continuing a downward trend in M3 rates of change for the euro area evident since October 2007. In contrast, the Irish contribution to euro-area M3 has begun to increase on an annual basis in recent months, with annual growth averaging 3.1 per cent in the three months ending November 2009. This reverses a trend of decline in the Irish contribution to euro-area M3 which began in mid-2008.

A significant factor in the growth of the Irish M3 contribution is the developments in M1 here in recent months, which recorded an annual growth averaging 8.2 per cent in the three months ending November 2009. Currency in circulation has grown by almost 40 per cent on average through 2009, mostly due to the large increase in currency holdings in the face of uncertainty following the Lehman Brothers collapse in September 2008. The annual rate of change in currency in circulation has declined in recent months as the base effect of this event passes, but still remains in excess of 30 per cent. There has also been a significant reversal in the rate of change in overnight deposits which has contributed strongly to M1 growth. After declining consistently on an annual basis since April 2008, overnight deposits increased on an annual basis again in September 2009, and annual growth averaged 6.4 per cent in the three months ending November. This increase in overnight deposits is mirrored at a euro area level and is partly explained due to the reduced opportunity cost of holding overnight deposits vis-à-vis short-term time deposits (i.e. with agreed maturity up to 2 years). The fall in retail interest rates for term deposits since September 2008 has now made it less costly for the money-holding sectors to keep their assets in the more liquid form. This can also partially explain the continued decline in M2-M1, which has been evident both in Ireland and at a euro area level since Q3 2009. The decline in short-term time deposits, which are included in M2, has been only partially offset by an increase in short-term



savings deposits (i.e. redeemable at notice up to 3 months). The increase in short-term savings deposits may also reflect the interest rate dynamics between these accounts and short-term time deposits, as the remuneration on savings deposits has exceeded that on time deposits since January 2009.

Another trend underlying monetary dynamics at the euro area level and to some extent domestically, is an increased risk appetite given the steepening yield curve and more certainty about a global economic recovery. This has led to more funds being transferred out of the M3 measure and into other asset categories such as equities, commodities and longer-term debt securities, particularly at the expense of short-term time deposits. The decline in the level of short-term time deposits held at Irish resident credit institutions has driven a decline in total M3 deposits, which averaged an annual rate of change of approximately minus 5 per cent in the three months ending November 2009. The pace of this contraction in M3 deposits has, however, begun to slow since August 2009. Underlying this is a more muted contraction in M3 deposits from non-financial corporations. Meanwhile M3 deposits from households continued to grow at approximately 2.5 per cent on an annual basis on average in the three months ending November, as they had done through the earlier months of 2009.

#### **Developments in Private-Sector Credit Advanced by Irish Resident MFIs**

The annual rate of change in private-sector credit (PSC) continued to decline in recent months, reaching minus 5.3 per cent in November 2009. In the three months ending November 2009, headline PSC declined by 1.8 per cent. Underlying this fall in PSC is continued weak demand for credit and muted supply due to the ongoing balance sheet constraints of lenders (see Box B: Irish Results of the Euro Area Bank Lending Survey).

Statistically, the biggest component of year-on-year changes in credit outstanding to the private sector as currently published, has been

due to revaluation effects, such as increased write-downs and provisions for bad debts. Other technical factors (reclassifications) have contributed to a lesser extent. While revaluations have impacted mostly on the NFC sector, they have also been important in the household sector. As part of the update of money and banking statistics the Bank will separately identify households and NFCs within PSC from July 2010, and examine the components underlying changes in credit outstanding for these sectors. Credit growth rates which are based on the underlying flows of credit (i.e. new lending less repayment of existing facilities) and which exclude revaluations and reclassifications will also be published. Box A provides an overview of the new methodology and explains its relevance in the current analysis of credit developments.

The outstanding stock of residential mortgage lending (inclusive of securitisations) declined by €134 million during the month of November 2009 to €147.7 billion. This followed declines of €15 million and €161 million in September and October respectively. The reduction in mortgage lending in November 2009 was the eighth consecutive month-on-month decline, as the level of outstanding mortgages peaked at €148.5 billion in March 2009. Mortgage debt outstanding fell on a year-to-year basis by €207 million in November, or 0.1 per cent. This was the first annual decline in mortgage lending on record since the current mortgage series began in the early 1990s, and is in contrast to annual growth of 6.8 per cent in residential mortgage lending in November 2008.

The latest data on the breakdown of residential mortgages relating to Q3 2009 show that the decline in residential mortgage lending has mostly been concentrated in buy-to-let (BTL) mortgages and lending for the purchasing of holiday homes. These categories declined by €1.4 billion (4 per cent) and €328 million (11.7 per cent) respectively, in the year ending Q3 2009. Meanwhile mortgages on principal dwelling houses (PDH) continued to increase on an annual basis during Q3 2009, albeit at a much slower pace of 1.9 per cent (€2.1 billion).

**Box A: Measuring Credit Growth — A New Approach**

From July 2010, the CBFSAI will introduce a new methodology and a new presentation of money and banking statistics. In advance of this new publication, this Box provides some background information on the new methodology, and how it differs from current practices. The new tables will provide a breakdown of credit outstanding for the key sectors within PSC, particularly for households and NFCs. As well as stocks of credit outstanding, growth rates will be calculated based on the underlying transactions in lending. This method is similar to that used by the ECB to calculate growth rates for the euro-area aggregates including money and the counterparts to money (e.g. loans), and is also used by a number of other monetary authorities. The methodology adjusts stocks from period to period to exclude revaluations and reclassifications in addition to the current practice of excluding exchange-rate effects and lending to non-bank IFSC companies. The primary focus of the new methodology will be on the household and NFC sectors — growth rates for both these sectors based on underlying credit flows are provided below.

Private-sector credit (PSC) growth rates are compiled from the balance sheet returns submitted monthly by the Irish resident offices of credit institutions. The current method for analysing changes in credit adjusts the changes in the stock of loans and other credit instruments, by removing the effects of exchange-rate movements and lending to non-bank IFSC companies, which have little impact on the domestic real economy. These growth rates are published in Table A2.2 of the CBFSAI *Monthly Statistics* and in the *Statistical Appendix* of the *Bulletin*.

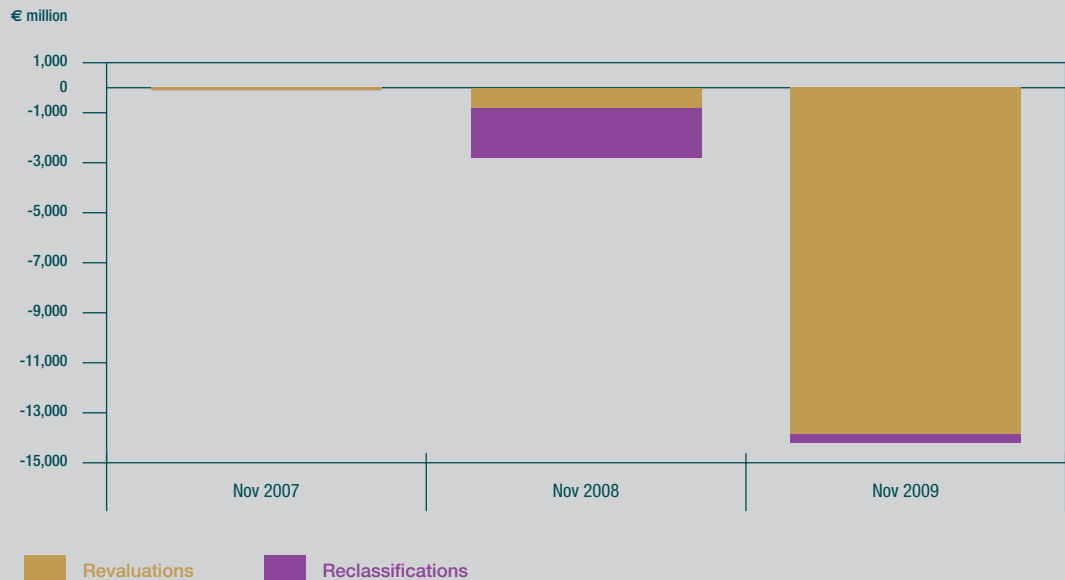
These adjustments alone, however, do not give a full picture of changes in the net flow of credit (i.e. new lending less repayments of existing credit), which are most relevant from an economic perspective. Other factors, such as revaluation effects and reclassifications can influence the changes in the stock of credit and consequently, the credit growth rate as currently published<sup>2</sup>. Revaluation effects capture the impact of write-offs or write-downs of loans as well as changes in the level of bad debt provisions. Reclassifications are changes in the balance sheet stocks due, for example, to changes in the reporting population, changes in the classification of instruments,

counterparties or residency of assets, or changes due to the correction of reporting errors. These non-transaction related factors need to be excluded in order to get a more accurate picture of the underlying flows of credit.

The vast majority of the contraction in the currently published measures of PSC is due to revaluation effects, i.e. changes in the level of write-downs and bad debt provisions. Prior to 2008, these effects were not very significant and the net flow of credit was, therefore, closely approximated by changes in stocks of credit from the published statistics. Chart A1 illustrates this point in particular, and shows how the treatment of revaluations and reclassifications causes divergences in the net flow of credit on an annual basis once these effects became significant in 2008. As economic conditions worsened and banks began to re-examine their loan books in more detail, these revaluation effects increased strongly. Revaluations are predominantly within the NFC sector, but also apply to households. While reclassifications have had a smaller impact, they can also be important at the disaggregated sectoral level. The difference in the change in PSC between the two methods for the year-end November 2009 is approximately €14.2 billion. The growth rate compiled under the new methodology is minus 1.7 per cent compared to minus 5.3 per cent under the current methodology (Table A1).

<sup>2</sup> The detail behind accounting for the exchange-rate effect is not discussed here, as it is broadly similar to the method being currently used to produce the adjusted annual rate of change in private-sector credit and non-mortgage credit published in Table A2.2 of the *Monthly Statistics* and the *Statistical Appendix* of the *Bulletin*.

**Chart A1: Difference in Year-on-Year Change in PSC between Old and New Method**



Source: CBFSAI.

**Table A1: Private-Sector Credit (adjusted) using the Current and New Methodology**

	PSC less non-bank IFSC	Annual Change in PSC less non-bank IFSC	Exchange Rate Effects	Annual Rate of Change in PSC (Current Method)	Revaluations	Reclassifications	Annual Rate of Change in PSC (New Method)
	€m	€m	€m	%	€m	€m	%
	A	B	C	$(B-C)/(A_{T-12}) * 100$	D	E	$(B-C-D-E)/(A_{T-12}) * 100$
Jan 09	365,380	22,290	5	6.6	-2,479	-2,052	7.8
Feb 09	365,279	19,639	709	5.6	-2,839	-2,052	6.9
Mar 09	360,645	8,648	687	2.4	-5,386	-1,668	4.3
Apr 09	358,829	5,861	861	1.6	-6,453	-1,397	3.6
May 09	358,192	1,919	346	0.6	-7,002	-1,397	2.8
June 09	356,879	-2,398	833	-0.8	-7,987	-1,397	1.7
July 09	353,947	-7,973	650	-2.2	-9,852	-1,813	0.8
Aug 09	353,019	-11,807	-88	-3.0	-10,469	-1,397	0.0
Sep 09	349,458	-14,245	-1,181	-3.4	-11,425	-980	-0.2
Oct 09	347,614	-16,616	-2,552	-3.7	-13,041	-367	-0.2
Nov 09	345,850	-22,532	-2,250	-5.3	-13,839	-367	-1.7

Source: CBFSAI.

Note: Formulae shown above are for illustrative purposes. Minor differences may exist between the growth rates above and their underlying components, as the exact formula for calculating growth rates is based on the aggregation of twelve monthly changes, as opposed to annual changes. See the credit growth data referenced in footnote 3 for more details.

This new method of calculating credit growth relating to households and NFCs will be published domestically from July 2010 in the new monthly money and banking statistics release<sup>3</sup>. Chart A2 shows how the annual rate of change in credit to NFCs and households (including securitised mortgages) has evolved in recent months using the new method and a simple comparison of balance sheet stocks without adjusting for revaluations, reclassifications and exchange-rate effects.

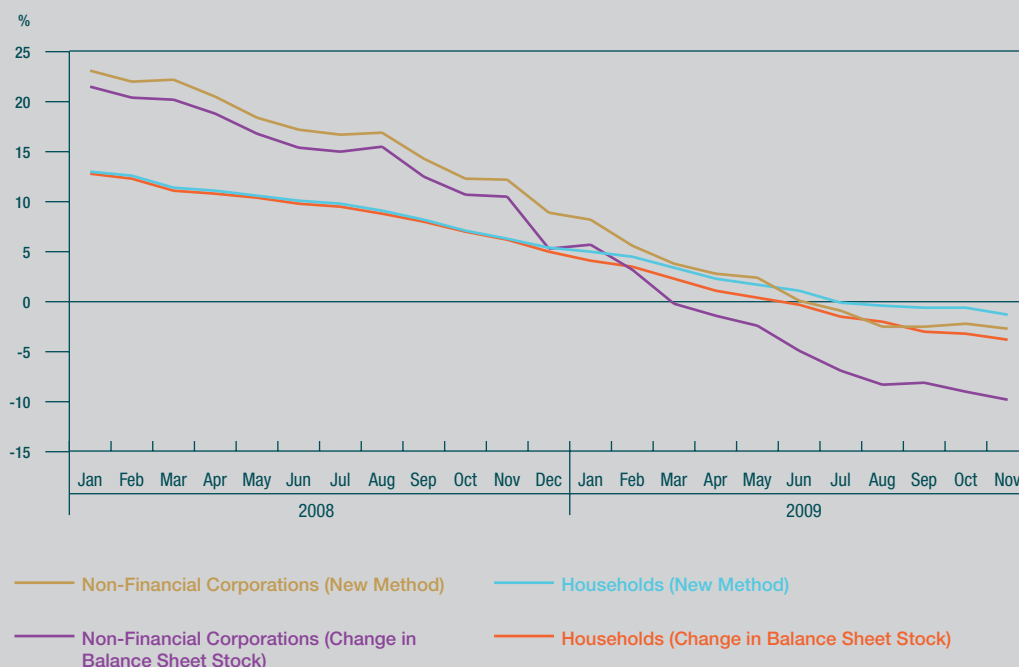
The impact of revaluations on lending to NFCs has depressed the reported stocks of NFC credit on credit institutions' balance sheets. Exchange-rate developments have also contributed to the divergence in growth rates using the two methods, as the reported book value of non-euro denominated NFC loans have fallen in line with the strengthening of the euro against other major currencies over the year. Using the new method, the trend for both household and NFC lending has shown a long period of slowing growth rates up to mid-2009 when credit extended to these sectors began

<sup>3</sup> Back-data of these series to 2004 are available at [http://www.centralbank.ie/frame\\_\\_main.asp?pg=sta\\_\\_late.asp&nv=sta\\_\\_nav.asp](http://www.centralbank.ie/frame__main.asp?pg=sta__late.asp&nv=sta__nav.asp).

to contract on an annual basis. The deceleration has been particularly rapid for NFC lending, having gone from an annual increase of 23.1 per cent in January 2008, to an increase of 8.2 per cent in January 2009, with the latest data showing an annual rate of contraction of minus 2.7 per cent. In contrast to early and mid-2009, however, the annual rate of change for NFCs has not declined significantly since August 2009, being approximately minus 2.5 per cent in most recent months.

The decline in the pace of growth in household credit has been less pronounced than that of NFCs. Household credit increased by 13 per cent in the year ending January 2008, with this pace of increase slowing to 5 per cent at year ending January 2009. The latest data for November 2009 shows a decline of 1.1 per cent in household credit in the year ending November 2009. Much of the decline is due to falling non-mortgage household credit, which has been declining consistently through 2009. Since April 2009, however, residential mortgages have also been declining on a month-to-month basis, and were virtually unchanged on an annual basis in November 2009.

**Chart A2: NFC and Household Credit (incl. securitisations), Annual Rates of Change**

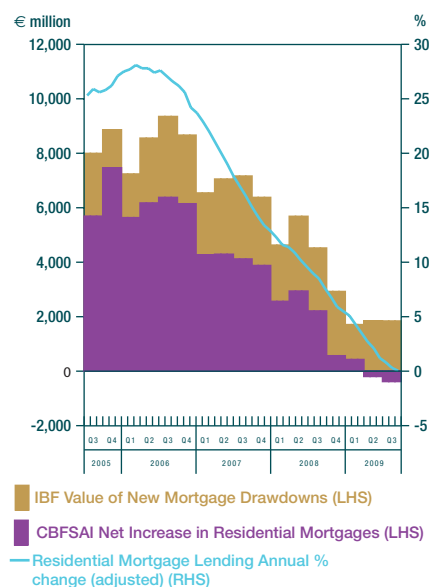


Source: CBFSAI.

On a quarter-on-quarter basis PDH mortgages increased by €243 million in Q3 to €113.5 billion<sup>4</sup>, whereas BTL and holiday home mortgages declined by €473 million to €33.4 billion and €149 million to €1.1 billion respectively. The annual rate of decline in the value of new mortgage business<sup>5</sup> in Q3 2009, as reported by the Irish Banking Federation/PricewaterhouseCoopers Mortgage Market Profile, slowed to minus 58 per cent from minus 67 per cent in Q2 2009. The developments in new mortgage business over the past year have been dominated by the reduction in the volume of activity. The average loan size for new mortgages has not declined to the same extent as the value of new mortgage business. The rate of decline in the volume of new activity in the mortgage market also slowed, however, over Q3 2009, particularly for first-time buyers and mover-purchasers. This has contributed to the less severe slowdown in PDH mortgages relative to

<sup>4</sup> The Financial Regulator is now publishing a series on principal dwelling mortgages with a particular emphasis on mortgage arrears. This series shows PDH mortgages outstanding at end-Q3 2009 as €118.6 billion. Some differences exist between the two series, particularly due to the inclusion of sub-prime mortgage providers in the Financial Regulator data.  
<sup>5</sup> Excluding top-up and re-mortgaging activity.

**Chart 8: Quarterly Increase in Residential Mortgages — New Lending and Outstanding Amounts**



Source: CBFSAI and the Irish Banking Federation.

BTL and holiday home mortgages witnessed in recent months.

Sectoral data for Q3 2009 show that lending to the financial intermediation sector was again

**Table 1: Sectoral Breakdown of Private-Sector Credit<sup>a</sup>**

	Total stock at end-Sep. 2009		Change in credit			
			Q-on-Q		Y-on-Y	
	€ million	% share	€ million	% change	€ million	% change
Primary industries <sup>b</sup>	6,039	1.5	-124	-2.0	-376	-5.9
Manufacturing	7,550	1.8	-271	-3.5	-1,612	-17.6
Electricity, gas and water supply	1,100	0.3	85	8.4	-134	-10.8
Construction	16,603	4.0	-2,398	-12.6	-6,341	-27.6
Wholesale/retail trade and repairs	12,965	3.1	-271	-2.0	-1,345	-9.4
Hotels and restaurants	11,214	2.7	-81	-0.7	-593	-5.0
Transport, storage and communications	3,225	0.8	-58	-1.8	-370	-10.3
Financial intermediation	86,206	20.7	25	0.0	11,336	15.1
Real estate activities	88,050	21.2	-1,352	-1.5	-4,065	-4.4
Business activities	7,096	1.7	935	15.2	293	4.3
Services to households	6,358	1.5	-28	-0.4	266	4.4
Personal	169,047	40.7	-1,888	-1.1	-3,803	-2.2
of which:						
- Residential mortgages	147,969	35.6	-380	-0.3	419	0.3
- Other housing finance	644	0.2	-74	-10.3	-467	-42.0
- Other	20,434	4.9	-1,434	-6.6	-3,756	-15.5
<b>Total</b>	<b>415,453</b>	<b>100.0</b>	<b>-5,426</b>	<b>-1.3</b>	<b>-6,744</b>	<b>-1.6</b>
<i>Total PSC (Table A2.2, Statistical Appendix)</i>	<i>378,086</i>		<i>-9,264</i>	<i>-2.4</i>	<i>-21,057</i>	<i>-5.3</i>

<sup>a</sup> The Total figure in Table 1 includes securitised residential mortgages which have been added back into lending to the Personal sector to give a more accurate figure for personal borrowing. Some of the mortgage-backed securities created with these loans have been purchased by Irish credit institutions and would also be included under Financial Intermediation above. As such there is an element of double-counting in the Total figure. The official level of PSC outstanding (inclusive of accrued interest) is reported in Table A2.2 of the Statistical Appendix and is shown in the last row of Table 1 above, along with the unadjusted quarterly and annual changes in PSC. The adjusted growth rates for total PSC (which account for exchange-rate valuation effects and lending to non-bank IFSC companies), mortgage and non-mortgage credit are available from Table A2.2 of the Statistical Appendix.

<sup>b</sup> Primary industries refer to agriculture, forestry, fishing, and mining and quarrying.

Source: CBFSAI. Data are based on NACE Rev.1 industrial codes. For earlier data see Table C8 of the Statistical Appendix.

**Box B: Irish Results of the Euro Area Bank Lending Survey**

The latest Bank Lending Survey, which examined credit conditions during Q4 2009 and expected credit conditions for Q1 2010, showed a further tightening of credit standards on loans to enterprises for the final quarter of 2009 (Table B1). A further rise in their cost of funds and balance sheet constraints contributed to the tightening of credit standards by banks. Allied to this was uncertainty surrounding both the general economic outlook and that for specific industries and firms. The tightening of credit standards was reflected in both price and non-price terms and conditions: higher loan margins, more restrictive collateral requirements, and reduced loan covenants.

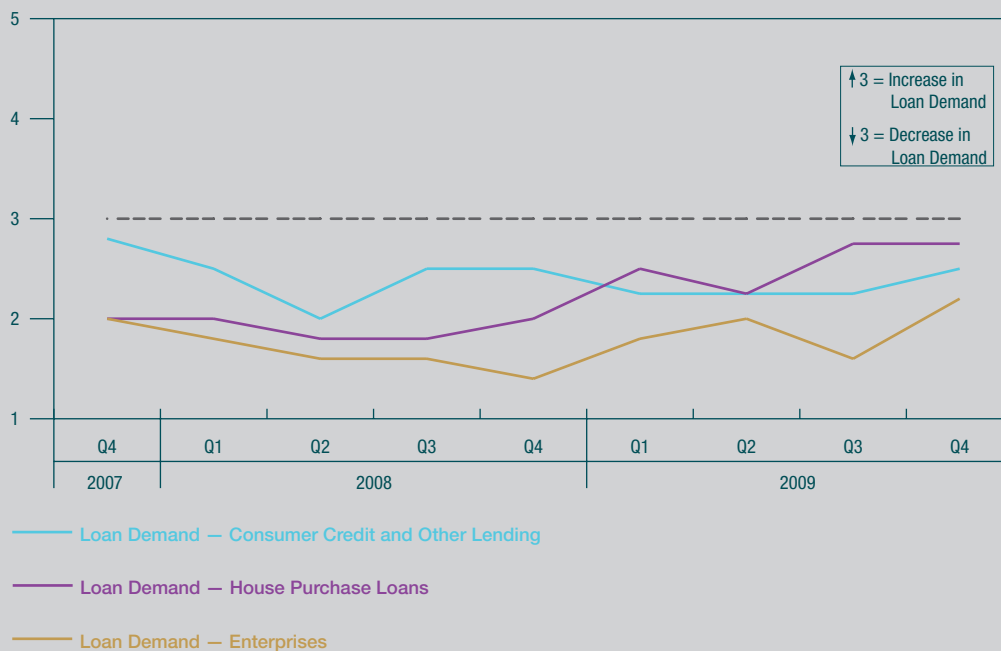
Credit standards on loans to households for house purchase were unchanged during Q4 2009 for the first time since Q4 2007. Credit

standards were also unchanged regarding consumer credit and other lending to households.

**Table B1: Change in Credit Standards**

		Q3 2009	Q4 2009
<b>Enterprises:</b>	Overall	2.60	2.40
	Small/medium enterprises	3.00	2.75
	Large enterprises	2.50	2.25
	Short-term loans	2.60	2.40
	Long-term loans	2.60	2.40
<b>Households:</b>	House purchase	2.75	3.00
	Consumer credit and other lending	3.00	3.00

Key: 1 = tightened considerably; 2 = tightened somewhat; 3 = basically unchanged; 4 = eased somewhat; 5 = eased considerably.

**Chart B1: Change in Loan Demand: Enterprises and Households**

During Q1 2010 credit standards are expected to remain unchanged on loans to enterprises and households across all categories examined.

Meanwhile the demand for loans from enterprises decreased during Q4 2009, for the 12<sup>th</sup> successive quarter and this was independent of loan maturity or firm size. Lower levels of fixed investment and declining volumes of mergers and acquisitions (M&A) activity were the main factors attributed by banks to this decline.

Similar to enterprises, the demand for loans from households for house purchase as well as consumer credit and other lending also decreased during Q4 2009 continuing a trend of recent quarters. Less favourable housing market prospects, declining levels of consumer confidence, and reduced spending on durable

consumer goods are some of the factors cited by the participating institutions as being responsible for the decline in household loan demand.

During the first quarter of 2010 loan demand from enterprises is expected to decrease and is expected to remain unchanged regarding loans to households.

For the first time since the BLS commenced, participating institutions were asked about expected changes in credit standards on loans to enterprises and households as well as the expected impact of various factors on credit standards during the whole of 2010. All participating institutions reported that credit standards are expected to remain unchanged for the next twelve months. However, given the increased horizon to which these responses relate, greater uncertainty has to be attached to these expectations.

significant, with growth of 15.1 per cent on an annual basis. This is, however, stabilising following growth in excess of 20 per cent for all quarters from mid-2007 to early 2009. This strong growth in lending largely reflects a technical issue relating to the purchase of mortgage-backed securities by credit institutions from special-purpose vehicles (SPVs). In many cases, the credit institutions themselves are the originators of the loans underlying the securities issued by the SPVs. In addition, a significant part of lending to the financial intermediation sector is to non-bank IFSC companies, although this has declined over Q3 2009 by 6 per cent. The increase in financial intermediation lending in recent quarters relates to non-IFSC business.

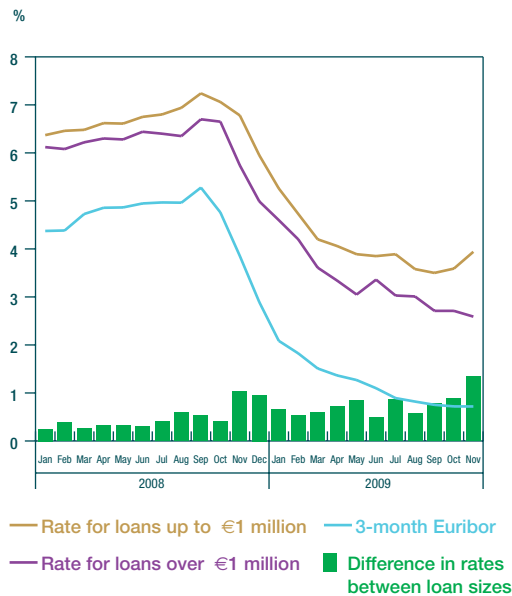
Lending to the non-property business sectors<sup>6</sup> increased over Q3 2009 by €215 million, or 0.4 per cent, mostly related to an increase in credit to firms in the non-real estate services sectors. However on an annual basis, credit to non-property business sectors was 7.8 per cent lower than in Q3 2008. There are significant

<sup>6</sup> The non-property business sectors are defined as business sectors excluding construction, real estate activities and the financial intermediation sector. Social and personal sectors are also excluded in this categorisation.

differences across the sectors in the rate of decline seen since lending to most of these sectors peaked between Q2 and Q3 2008. Credit to the manufacturing sector, for example, had fallen by 17.8 per cent from its peak in Q2 2008 to Q3 2009, whereas wholesale/retail trade and repairs and the hotel and restaurant sectors have seen declines of 9.4 per cent and 8.4 per cent respectively from their peaks in Q3 and Q2 2008. These latter two sectors combined account for almost 50 per cent of all non-property related business credit outstanding, and had witnessed the most significant growth rates in credit to non-property sectors prior to mid-2008. Meanwhile lending to property-related business sectors fell by €3.8 billion during Q3 2009. On an annual basis, credit to the construction and real estate sectors fell by 9 per cent in the year to the end of the third quarter. Write-downs and rising bad debt provisions have been significant factors in the quarterly and annual developments in credit to these combined sectors.

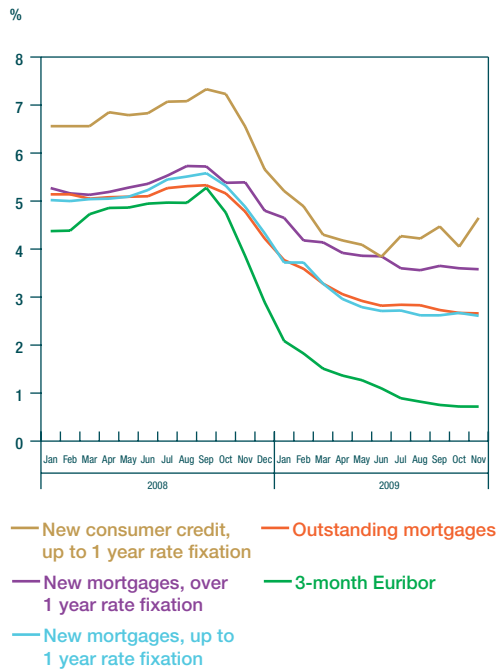
### Domestic Lending and Deposit Rates

Interest rates on lending for households and NFCs have been relatively stable in recent months following the falls seen across most

**Chart 9: New NFC Loans with Floating Rate and up to One-Year Initial Rate Fixation**

Source: CBFSAI.

categories from autumn 2008. Lending rates appear to have reached the bottom of their cycle, however, and for some lending categories the margins between retail and inter-bank lending rates (e.g. Euribor) have widened. This is the case for new short-term or variable rate NFC loans of less than €1 million, the rates for which increased by 36 basis points between August and November 2009. Lending rates in this category still remain significantly lower than in 2008, however, as they were 284 basis points lower in November 2009 compared with November 2008. NFC loans under €1 million can be used as a proxy for lending to smaller companies. Meanwhile rates on new short-term or variable rate NFC loans of more than €1 million declined by 42 basis points from August to November 2009. This brought the gap between rates for smaller and larger NFC loans to 135 basis points in November, the highest for 2009. Overall, rates for loans under €1 million are 3.1 percentage points lower, while rates for loans over €1 million are 4.1 percentage points lower than before the beginning of the rate-cutting cycle in October 2008. This compares to cuts totalling 3.25 percentage points in the ECB main refinancing rate.

**Chart 10: Lending Rates to Households**

Source: CBFSAI.

Average rates for new variable-rate mortgage customers remained relatively unchanged between August and November 2009, while rates for existing mortgage holders fell by almost 20 basis points. Rates for new mortgages with over 1 year rate fixation have also remained relatively unchanged in recent months, but these have not declined to the same extent as variable rate mortgages since the beginning of the rate cutting cycle in 2008. New variable-rate mortgages have declined by 270 basis points from October 2008 to November 2009 whereas new mortgages with over 1 year initial rate fixation have only fallen by 180 basis points. The margins above the ECB main refinancing rate for new variable-rate mortgages and for existing mortgages remained relatively constant through 2009 at approximately 1.7 per cent. Irish mortgage rates remain among the lowest in the euro area for both new business and outstanding amounts.

Overnight deposit rates for both households and NFCs remained relatively stable during the three months ending November 2009, having declined by 64 and 67 basis points respectively, over the year since November



2008. Rates offered on deposits with agreed maturity have seen the sharpest decline since the autumn of 2008, with rates for NFC deposits in this category continuing to fall during the three months ending November 2009 to 0.94 per cent. These rates were as high as 4.4 per cent in September 2008. However rates on deposits with agreed maturity from households, which had fallen consistently from their peak of 4.4 per cent since September 2008, increased during October

2009 by 10 basis points, with a further rise of 16 basis points in November. This trend was mirrored in the euro area as a whole. Meanwhile household deposits which are redeemable at notice remained relatively unchanged since May 2009, averaging 2.3 per cent since then. This is in contrast to the euro area as a whole, where rates on household redeemable at notice deposits are continuing to decline.

**Table 2: Deposit Rates to Households and Non-Financial Corporations<sup>a</sup>**

%	2009					
	June	July	Aug.	Sep.	Oct.	Nov.
<b>DEPOSITS</b>						
<b>Households</b>						
— Overnight <sup>b</sup>	0.56	0.59	0.60	0.63	0.63	0.64
— With agreed maturity	1.61	1.48	1.40	1.23	1.33	1.49
— Redeemable at notice <sup>b</sup>	2.32	2.29	2.29	2.21	2.22	2.24
<b>Non-financial corporations</b>						
— Overnight <sup>b</sup>	0.30	0.36	0.29	0.30	0.30	0.30
— With agreed maturity	1.38	1.22	1.02	1.00	0.96	0.94

<sup>a</sup> Rates are for new business.

<sup>b</sup> For these categories, new business is defined as outstanding amounts.

Source: CBFSAI.



## An Timpeallacht Gheilleagrach

Ta maolú suntasach tagtha ar luas an mheatha sa ghníomhaíocht gheilleagrach ón Earrach seo caite. Dealraíonn se go bhfuil an geilleagar gar d'íosphointe an choir chun donais, i dtéarmaí aschuir, cé go mairfidh laige éigin ar aghaidh sa chéad leath den bhliain seo, agus is cosúil go mbeidh tuilleadh cailteanas fostaíochta ann. Is cosúil go dtarlódh an téarnamh, nuair a thagann sé chun cinn, de réir a chéile agus nach mbeidh ach téarnamh measartha ann. Cuirfidh díscáileadh na míchothromaíochtaí a cruthaíodh le linn an bhorrtha srian i gcónaí ar ghníomhaíocht gheilleagrach go ceann i bhfad, rud a thugann le tuiscint go dtógfaidh sé roinnt ama go dtí go dtiocfaidh téarnamh a mbeadh bonn níos leithne faoi chun cinn. Tá tús maith curtha leis an obair, go háirithe i dtaca le bearta buiséadacha, ach brathfaidh téarnamh dá leithéid freisin ar dhul chun cinn breise a dhéanamh chun na dúshláin bhuiséadacha agus na dúshláin gheilleagracha agus airgeadais níos leithne atá os comhair na hÉireann a shárú. Beidh sé rí-thábhachtach freisin cailteanais in iomaíochas pá a aisiompú: os rud é go raibh an praghasleibéal ag titim i rith 2009 ciallaíonn sé seo go gcaithfear roinnt laghduithe i bpá ainmniúil a dhéanamh, mar atá á ndéanamh cheana féin in áiteanna san earnail phoiblí maraon leis an earnail phríobháideach.

Cé nach bhfuil sonraí don ráithe dheiridh de 2009 ar fáil fós, meastar gur tháinig meath de thimpeall 11 faoin gcéad i dtéarmaí OTN ar ioncam comhiomlán sa gheilleagar anuraidh, tar éis dó titim rud beag faoi bhun 3 faoin gcéad sa bhliain 2008. Tugann éifeachtaí iarmhartacha, agus an cosúlacht go bhféadfadh laigí sa ghníomhaíocht gheilleagrach leanúint ar aghaidh sa chéad leath den bhliain seo, le tuiscint gur féidir bheith ag súil le meánchrapadh bliantúil eile a bheidh beagáinín os cionn 2 faoin gcéad do 2010 ina iomláine. I gcomparáid leis an tréimhse chomhfhreagrach de 2009, áfach, táthar ag súil go bhfillfidh fás dearfach, ar bhonn bliantúil, ón dara leath den bhliain seo, agus don bhliain ina iomláine i 2011. Is cosúil go mbeidh fás measartha ann an bhliain seo chugainn, áfach, b'fhéidir sa réimse ó 2½ go 3 faoin gcéad. Léirigh cuid den titim ghéar san OTN méadú in eis-sreafaí glanioncam fáchtóirí fad is a lean an t-aschur i ngnólachtaí faoi úineireacht eachtranach — agus, dá bhrí sin cur abhaile a gcuid brabúis — athléimneach. Idir an dá linn mhéadaigh eis-sreafaí d'íocaíochtaí úis agus thit insreabhadh na dtuilleamh ó chomhlachtaí Éireannacha atá lonnaithe thar lear. Ní raibh an titim san OTI chomh géar (7 faoin gcéad sa bhliain 2009), rud a ríomhtar beag beann ar shreafaí fáchtóirí.

Fillfear ar fhás dearfach de réir mar a éiríonn an spreagadh seachtrach don ghníomhaíocht níos troime ná tionchar na dtosca intire atá ag maolú ach atá i gcónaí diúltach. I dtús báire, beidh tionchar ag neart and inbhuanaitheacht an téarnaimh sa gheilleagar dhomhanda ar an téarnamh i ngeilleagar na hÉireann. Go dtí seo, tá téarnamh níos fearr tagtha ar an ngeilleagar domhanda sa dara leath de 2009 ná mar bhíothas ag súil leis roimhe sin, agus mar thoradh air seo bhíothas agus táthar fós ag leasú na réamhaisnéisí fáis domhanda in airde don bhliain 2010. Cé gur rud dearfach é seo, tá an téarnamh ar fud na mórgheilleagar tionsclaíche i gcónaí beagáinín leochaileach agus míchothrom. Thairis sin, táthar buartha go bhfuil an téarnamh domhanda atá ag teacht chun cinn ag brath chomh mór sin ar spreagadh toirtiúil fioscach agus airgeadaíochta agus ar thosca sealadacha eile. D'ainneoin sin, áfach, tá na príomhghníomhaireachtaí tuartha idirnáisiúnta ar aon intinn go bhfuiltear ag súil go leathnóidh an ghníomhaíocht go measartha i bpríomhghargáí easpórtála na hÉireann i mbliana, tar éis di crapadh go géar sa bhliain 2009.

In aghaidh an chúlra seo, táthar ag tuar go bhfásfaidh onnmhairí beagán sa bhliain 2010.

Ce go raibh feidhmiú foriomlán onnmhairí níos fearr ná mar a bhíothas ag súil leis le linn an choir chun donais, bhí difríocht mhór idir na torthaí sna hearnálacha éagsúla agus cruthaigh laige na gníomhaíochta geilleagraí sa RA maraon leis an titim i luach steirling timpeallacht an-dúshlánach do ghnólachtaí a bhí ag díriú ar an margadh sin. I gcoitinne, cuireann neartú luach an euro béim ar an sprioc rithábhachtach, iomaíochas a fheabhsú chun buntacú le feidhmiú onnmhairí.

Cé go bhfuil an t-ionchas don éileamh intíre i gcoitinne lagbhrioch i gcónaí, is cosúil go mbeidh difríocht shuntasach sa chaoi a fheidhmíonn na comhpháirteanna éagsúla. Tá an cuma ar an scéal go dtiocfaidh deireadh de réir a chéile leis an gcrapadh i gcaiteachas tomhaltóirí ach fanann an t-ionchas d'infheistíocht lag, fad is atá an coigeartú leanúnach ar siúl in earnáil na foirgníochta. Maidir le caiteachas tomhaltóirí, tugann an treocht sna príomhtháscairí le tuiscint go mbeidh cobhsú éigin ann. Cé go bhfuil cosúlacht réasunta ann go bhfillfear ar fhás i gcaiteachas tomhaltóirí am éigin i rith 2010, tá an cuma ar an scéal go dtitfidh caiteachas tomhaltóirí don bhliain ina iomláine. Tráth a bhfuil ioncaim theaghlaigh i gcónaí faoi bhrú, feabhas tagtha ar mhuintir tomhaltóirí ach í i gcónaí lagbhrioch agus fonn ar theaghlaigh fiacha a aisíoc, is cosúil go mbeidh an téarnamh i gcaiteachas tomhaltóirí, a tharlóidh faoi dheireadh, mall agus céimseach. Treisíonn treochtaí i margadh an tsaothair an dearcadh seo agus is cosúla go gciallaíonn an luasmhoilliú san ardú i ráta na dífhostaíochta go bhfuil eisimirce ag méadú agus go bhfuil rannpháirtíocht san lucht oibre ag laghdú, seachas fianaise go bhfuil feabhas bunúsach ag teacht ar threochtaí na fostaíochta. D'fhéadfadh claonadh a bheith ag na tosca deireanacha seo srian a chur leis an ardú sa ráta dífhostaíochta i mbliana. D'fhéadfadh eisimirce agus rannpháirtíocht níos ísle san fhórsa saothair teorainn a chur leis an méadú sa ráta seo dífhostaíochta i mbliana, ráta a d'fhéadfadh méadú beagáinín níos lú anois, go dtí 13½ faoin gcéad ar an meán, d'ainneoin go mbeidh titim ionchasach de thimpeall 3¼ faoin gcéad san fhostaíocht.

Tríd is tríd, tá an t-ionchas i gcónaí dúshlánach sa gharthearma. Mar sin féin, i dtéarmaí na hacmhainneachta meántearmaí, tá láidreachtaí tábhachtacha éigin fós ag an ngeilleagar — amhail céim shuntasach solúbthachta agus fórsa saothair ard-oilte, ard-sciliúil. Má cuirtear leis na láidreachtaí seo agus má leantar ar aghaidh ag treisiú solúbthacht agus inoiriúnaitheacht an gheilleagair, cuideoidh sé seo chun a chinntiú go bhfillfear ar rátaí réasúnta fáis sa mheántearma. Tá acmhainneacht fáis mheántearmach gheilleagar na hÉireann i gcónaí cuíosach fabhrach de réir na gcaighdeán i ngeilleagar forbartha Eorpach. Brathfaidh ár gcumas chun an acmhainneacht seo a aimsiú, áfach, ar an gcaoi ina n-éiríonn linn na dúshláin reatha atá os ár gcomhair anois a shárú.

Baineann na dúshláin seo le bainistiú leanúnach an airgeadais phoiblí, le comhdhlúthú níos mó a dhéanamh ar chobhsú earnáil na baincáireachta agus le feabhsú iomaíochas an gheilleagair. Tá dul chun cinn mór déanta maidir le cobhsú an airgeadais phoiblí ó foilsíodh an Fhaisnéis Ráithiúil dheireanach. Tá sé mar aidhm ag na bearta a glacadh sa Cháinainéis teorainn de 11.6 faoin gcéad den OTI i 2010 a chur le hEasnamh Ginearálta an Rialtais. De bhreis ar éifeachtaí ioncaim na méaduithé cánach a tugadh isteach roimhe seo, déanfar é seo trí leas a bhaint go háirithe as laghduithe i gcaiteachas. Tá an cur chuige seo ar aon dul le fianaise idirnáisiúnta gurb é seo an modh is fearr chun dul i ngleic le heasnaimh bhuiséadacha. Léiríonn sé freisin na ceachtanna a foghlaimíodh ón taithí a bhí ag Éirinn féin agus í ag dul i ngleic leis an riocht fioscach ag deireadh na 1970idí agus i dtús na 1980idí. Tríd is tríd, is ionann na bearta sa Cháinainéis chun caiteachas a laghdú agus thart ar €4 billiún, cé go mbeidh an glanfhiúir beagáinín níos ísle ag timpeall €3.2 billiún, nuair a cuirtear fáiltas níos ísle ó chánacha dá éis san áireamh. Toisc go n-admhaíonn an Rialtas gur fiachas struchtúrach agus nach fiachas timthriallach atá i gcuid mhaith den bhfiachas fioscach tá sé tugtha le tuiscint fresin aige go bhfuil sé ar intinn aige bearta breise comhdhlúthaithe de €6.5 billiún a chur i gcrích sna ceithre bliana 2011 go 2014 go huile chun an t-easnamh a thabhairt faoi bhun teorann 3 faoin gcéad an Chomhaontú

Cobhsaíochta agus Fáis. Caithfear a chinntiú go gcuirfear an straitéis chomhdhlúthaithe mheántéarmach, atá leagtha amach chun an t-easnamh a laghdú de réir a chéile sna blianta atá le teacht, i gcrích.

Léiríonn scála an choigeartaithe atá riachtanach gur fhás caiteachas poiblí go tapa i rith bhlianta an bhorrtha arna mhaoiniú ag fáiltais láidre a bhain le hearnálacha na réadmhaoine agus na foirgníochta. Is léir anois gur gá pátrúin ioncaim agus caiteachais a choigeartú go han tapa chuig samhail níos inbhuanaithe. Ar thaobh an chánachais, tá bonn cánach níos leithne a bheidh níos cobhsaí agus níos iontaoifa le himeacht aimsire riachtanach chun é seo a dhéanamh. Mar chuid de na coigeartuithe go dtí seo, méadaíodh rátaí imeallacha cáin ioncaim. Cé nach mbeadh sé mar thoradh ar an ardú sna rátaí seo go dtí seo nach mbeadh Éire ar aon dul le mórán geilleagar sárghorbartha, ní féidir le rátaí dá leithéid dul ró-ard gan drochthionchair dhídhreasacha a bheith acu. Tá scóip ann chun an bonn cánach a leathnú a thuilleadh, áfach, mar shampla, trí dhíolúintí ó cháin ioncaim a theorannú agus, trí chóras cánach réadmhaoine a thabhairt isteach rud a déantar de gháth i gcuid mhaith geilleagar forbartha. Fiú má cuirtear aon athruithe a d'fhéadfaí a dhéanamh don chóras cánach san áireamh, áfach, is cosúil go gcaithfidh cuid mhaith den ualach a bhainfeadh le coigeartú breise a bheith ar thaobh an chaiteachais agus ina leith sin, cuireann 'Tuarascáil an Ghrúpa Speisialta ar Uimhreacha na Seirbhíse Poiblí agus Cláir Chaiteachais' creat luachmhar ar fáil. Go háirithe, ba chóir go n-imreodh leasú sholáthar seirbhíse poiblí ról lárnach. Ciallaíonn sé seo go gcaithfear níos mó solúbthachta a thabhairt isteach maidir le nósanna imeachta oibre agus le hathimscaradh acmhainní ionas gur féidir soláthar seirbhíse a choimeád ar bun, chomh fada agus is féidir, fad is atáthar ag isliú costais. Ar thaobh an ioncaim, chun fáiltais a ardú agus chun an t-éileamh ar sholáthar seirbhíse a bhainistiú, tá sé tábhachtach bogadh i dtreo an phrionsabail 'ioc mar a úsáidtear'.

Má bhreathnaítear anois ar earnáil na baincéireachta, ainneoin go bhfuil feabhas

éigin tagtha ar na dálaí sna margáí airgeadais domhanda, tá an timpeallacht oibre do bhainc na hÉireann an-dúshlánach i gcónaí. Léiríodh an ghéarchéim airgeadais ar bhealaí éagsúla lena n-áirítear coinníollacha maoinithe níos teinne do bhainc na hÉireann, ardú géar i gcaillteanais tabhaithe agus ionchasacha ar iasachtaí, agus lagú (go háirithe sa chéad leath de 2009) sa bhraistint idirnáisiúnta a bhí ann maidir le córas baincéireachta na hÉireann. D'fhéadfadh iarmhairtí díreacha agus indíreacha a bheith ag na nithe seo go léir a bheadh suntasach don bhfíorgheilleagar. Mar fhreagra air seo, thug an Rialtas réimse de bhearta tacaíochta isteach lena n-áirítear ráthaíocht do dhliteanais inghlactha, instealltaí suntasacha caipitiúla sna bainc intíre is mó agus bunú na Gníomhaireachta Naisiúnta um Bainistíocht Sócmhainní (GNBS).

Léiríonn na hionchais gheilleagracha gur feidir bheith ag súil le roinnt cailteanas eile ar iasachtaí fiú amháin tar éis criostalú cailteanas nuair a déantar iasachtaí a bhaineann le forbairt taillte agus réadmhaoine a aistriú chuig an GNBS. Is léir, mar sin, go mbeidh tuilleadh instealltaí caipitiúla de dhíth ar an gcóras baincéireachta i mbliana, agus, sa mhéid is nach bhféadtar an caipiteal seo a chruinniú i margáí príobháideacha, d'fhógair an Rialtas go bhfuil sé tiomanta go leor caipitil a chur ar fáil chun a chinntiú go mbeidh na bainc caipitilthe go leordhóthanach. Brathfaidh an méid díreach de chaipiteal breise a d'fhéadfadh a bheith ar an Stát a chur ar fáil ar roinnt tosca lena n-áirítear luacháil sócmhainní an GBNS, cailteanais ionchasacha ar phunanna neamh-GBNS agus fonnmhaireacht infheisteoirí príobháideacha. Tríd is tríd, beidh tionchar dearfach ag aistriú sócmhainní i rith 2010 trí neamhchinnteacht sa mhargadh a laghdú agus trí na coinníollacha maoinithe is infheidhme d'institiúidí Éireannacha a éascú. Léiríonn na bearta a thóg an Rialtas isteach chun tacaíocht a thabhairt don chóras airgeadais an gá atá ann chun an baol go ndéanfaí dochar don bhfíorgheilleagar a íoslaghdú, trí dhálaí a chruthú a chuirfeadh ar chumas na mbanc iasachtú chuig d'iasachtaithe inchairde a leathnú, agus san am chéanna a chinntiú go bhfuil maoláin caipitiúla agus leachtachta leordhóthanacha ar fáil chun cobhsaíocht an

chóras baincéireachta a chosaint. Tá sé réamhriachtanach don téarnamh go gcinnteofar go mbeidh soláthar leordhóthanach de chistiú ar fáil d'fhiontair Éireannacha, lena n-áirítear fiontair bheaga agus mheanmhéide agus do cheannaitheoirí féideartha tí. Tá sé tábhachtach gan ligint do lúb aiseolais dhiúltaigh teacht chun cinn idir an earnáil airgeadais agus an fíorghéilleagar trí earnáil na baincéireachta a neartú go leordhóthanach chun soláthar fóna creidmheasa a éascú. Caithfidh sé seo oibriú as lámh a chéile, áfach, le polasaithe oiriúnacha atá á nglacadh i réimsí eile, go háirithe maidir leis an airgeadas poiblí agus le hathbhunú iomaíochas, chun téarnamh atá bunaithe go daingean ar fhás a aimsiú.

Cé go bhfuil gá le dul chun cinn suntasach maidir leis an chéad dá cheist beartais chun cúlra cobhsaí a chur ar fáil d'fhás eacnamaíoch, is é an feabhsú i riocht iomaíochais na tíre an rud is tábhachtaí a chinnteoidh an bhféadfaidh an geilleagar filleadh ar fhás inbhuanaithe thar an mheántearma. Cé go bhféadfadh gaotha suntasacha cinn séideadh in aghaidh aon téarnamh domhanda, is forbairt dhearfach í, áfach, an athphreab reatha sa thrádáil dhomhanda agus is é an rogha is fearr atá ann chun cor chun feabhais marthanach i bhfás an aschuir a bhaint amach ná leas a bhaint as an éileamh seachtrach atá ag neartú, maraon le hathbhunú muiníne go hintíre. Dá bhrí sin, tá iomaíochas réamhriachtanach le haghaidh téarnaimh. Bhí iomaíochas á chailliúint ar bhonn leanúnach i rith an chuid is mó den dara leath den tréimhse deich mbliana atá thart de réir mar a bhí praghsanna agus pá intíre á dtiomáint aníos ag éileamh láidir. Sháraigh boilsciú na hÉireann an boilsciú i limistéar an euro gach bliain, seachas bliain amháin idir 1998 agus 2007. Bhí fás na táirgeachta láidir sa chéad chuid den tréimhse deich mbliana atá thart ach thit sé siar ina dhiaidh sin, rud a d'ardaigh costais táirgeachta in Éirinn i gcoibhneas le tíortha eile.

Tharla gluaiseacht anuas i bpraghsanna in Éirinn le déanaí, i dtéarmaí absalóideacha agus i gcoibhneas leis an scéal i bhformhór na dtíortha eile. Léiríonn sé seo comhbhrú éigin i gcorraigh brabúis ach freisin meath i bpá

ainmniúil in earnálacha éagsúla. Cuirfidh sé seo feabhas ar ár riocht iomaíochais i mbliana. Maidir le fostaithe, mhaolaigh an titim i bpraghsanna tionchar na titime i bpá ainmniúil, cé gur thit fíor-chumhacht ceannaigh in earnálacha áirithe, lena n-áirítear an earnáil phoiblí agus earnáil na seirbhísí airgeadais. Níl an scéal chomh soiléir in earnálacha éagsúla eile. Tá sé tábhachtach d'iomaíochas foriomlán an gheilleagair, áfach, go nglacfar le srianadh pá mar norm agus go gcuireann forbairt i bpá ainmniúil san áireamh go bhfuil praghsanna tar éis titim agus go bhfuil fás na táirgeachta lag faoi láthair agus go bhfuil sé lag le tamall anuas. Chuideodh forbairt dá leithéid ní hamháin chun costais dhírigh pá ghnólachtaí san earnáil trádáilte a fheabhsú ach freisin na costais a íocann siad nuair a cheannaíonn siad earraí agus seirbhísí sa gheilleagar. Tríd an cuspóir seo a bhaint amach, cuirfear feabhas ar an bhfostaíocht reatha agus ar na hionchais do chruthú post amach anseo. I Cuireann Tuarascáil Bhliantúil Iomaíochais na Comhairle Náisiúnta Iomaíochais in iúl freisin gur lean riarphraghsanna de bheith ag dul in airde, go bhfuil táillí gairmiúla fós an-ard in Éirinn agus go bhfuil gá le níos mó iomaíochais agus rialála i réimse earnálacha, amhail cúram sláinte, árachas sláinte, fónais agus iompar poiblí.

Bíonn peirspictíocht staire éigin úsáideach má táthar ag déanamh measúnú ar an staid mar atá. Tá fíorchaighdeán maireachtála sa gheilleagar ard i gcónaí de réir caighdeán idirnáisiúnta agus i bhfad níos airde ná mar a bhí siad timpeall tríocha bliain ó shoin. D'ardaigh OTN (arna coigeartú le haghaidh cumhacht ceannaigh) ó faoi bhun 70 faoin gcéad de mheán an AE sna 1980idí go dtí níos mó ná 110 i mblianta an bhorrtha. Cé go bhfuil titim ghéar go leor sa táscaire seo le dhá bhliain anuas, cothromóidh sé áit éigin idir 90 agus 95 faoin gcéad de mheán an AE. Is ionann an ráta fostaíochta, an céatadán den phobal os cionn 15 bliana d'aois atá ag obair, agus 62 faoin gcéad agus tá sé seo i bhfad os cionn an ráta comhfhreagrach de 52 faoin gcéad sa bhliain 1990, d'ainneoin gur ardaigh an dífhostaíocht le déanaí. Mar a dúradh cheana, níor cuireadh na bunláidreachtaí a d'fhorbair an geilleagar le fiche bliain anuas, amhail an t-ard-leibhéal oideachais agus

solúbthacht méadaithe, ar ceal agus má roghnaítear polasaithe go cúramach agus má ghníomhaítear go diongbháilte, is féidir leis an ngeilleagar filleadh ar ráta fáis measartha a laghdóidh an dífhostaíocht agus a chuirfidh feabhas a chaighdeán mhkaireachtála le himeacht aimsire. Ar an ócáid seo, áfach,

caithfear an dul chun cinn a bhunú ar fhás tathagach i ngníomhaíochtaí atá á dtrádáil go hidirnáisiunta den chuid is mó agus atá nasctha le bunláidreachtaí an gheilleagair agus nach léiríonn, mar a tharla le tamall beag anuas, forbairtí neamhchothromaithe intíre atá leochaileach do cheartúchán tobann.





# Developments in the International and Euro Area Economy

## Overview

The global economy recovered more strongly in the second half of last year than had been previously expected and there have been significant upward revisions to growth forecasts for this year. Financial market conditions and the performance of emerging Asian and Latin American economies, in particular, have improved markedly. Nevertheless, the outlook remains one of gradual, and possibly quite uneven, economic recovery. While there has been some improvement in fundamentals, recent growth also reflects more temporary factors and much of the substantial support from fiscal and non-conventional monetary policies is not sustainable in the medium term. Also, while the impetus from inventory accumulation and the recovery in trade volumes has been substantial, this could wane after volumes have normalised. Unusually severe rates of contraction were recorded in late 2007 and early 2008 when purchases of durable and investment goods in particular were essentially postponed. In addition, substantial headwinds still remain. In particular, high unemployment and, in many economies, the impact of weak balance sheets among banks, firms and households will continue to weigh on the global recovery. Recent trends in global trade are explored more fully in a box later in this article.

Regional economic differences can be explained to a large extent by variations in levels of domestic debt. Bank balance sheets are still quite impaired in a number of advanced and Eastern European economies as a result of loan losses while firm and household debt levels in some of these economies are high. Amid uncertainty surrounding future loan losses and future capital requirements, banks are concentrating on replenishing capital and reducing leverage, which may be limiting credit provision. Firms and households are also focusing on reducing debt levels. Labour market deterioration has also been particularly sharp in these economies. Banks in most emerging economies have been relatively unscathed by the financial crisis, while firm and household balance sheets are generally less leveraged. Nevertheless, emerging economies were most dependent on trade and, though benefiting from recovering trade volumes, have also seen sharp increases in unemployment. Significant differences in the scale and timing of fiscal stimulus measures also help to explain differences in economic growth across economies.

Looking ahead, the ongoing interaction between balance sheet adjustment in advanced economies and global policy stimulus is likely to result in a modest and uneven economic recovery and creates a high degree of uncertainty as to whether the recovery will be stronger or weaker than expected. In addition, fiscal consolidation measures have become a necessity in a number of advanced economies with weak fiscal balances and maturing debt. In many emerging economies, there is a renewed risk of asset price bubbles from a liquidity glut arising from investors taking advantage of cheap borrowing costs to invest in higher yielding assets. The withdrawal of fiscal stimulus and the removal of non-conventional monetary policy measures will need to be done carefully so as to chart a course between stoking inflation and risking a renewed downturn in growth. In this regard, the IMF has warned of the danger of a double dip recession if stimulus were to be withdrawn too early. Finally, notwithstanding significant progress to date, the potential for a disorderly unwinding of still significant global trade imbalances remains a concern.

Table 1: Changes in Key Economic Variables in Selected Economies

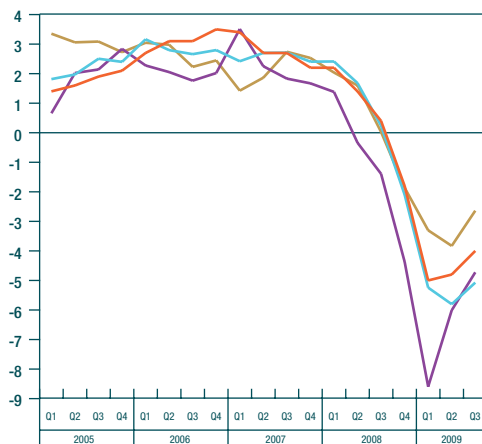
	Real GDP Growth %			Inflation %		
	2009 <sup>f</sup>	2010 <sup>f</sup>	2011 <sup>f</sup>	2009 <sup>f</sup>	2010 <sup>f</sup>	2011 <sup>f</sup>
US	-2.5	2.5	2.8	0.2	1.4	1.2
Japan	-5.3	1.8	2.0	-1.2	-0.9	-0.5
Euro area	-4.0	0.9	1.7	0.2	0.9	0.7

<sup>f</sup> Forecast

Source: OECD Economic Outlook, November 2009.

Chart 1: GDP Growth

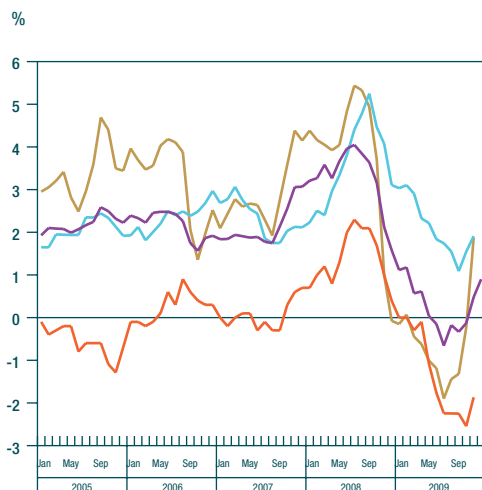
% Year-on-Year



— USA — Japan — UK — Euro area

Source: Reuters EcoWin

Chart 2: Inflation in the Major Economies

— US CPI — UK HICP  
— Euro area HICP — Japan CPI

Source: Reuters EcoWin

Global inflation rates in many economies are recovering from troughs reflecting the impact of sharp declines in commodity prices in the second half of 2008 and their subsequent recovery. Underlying pressures are generally weak, however, amid substantial spare capacity in labour markets and low physical capital utilisation. Nevertheless, there are some significant differences between economies, which can be partly explained by exchange rate developments and variations in the weights of commodities in consumer price baskets. Looking ahead, a liquidity surplus in the global economy could, over time, transmit itself into higher consumer prices if measures are not taken to reduce it. This risk is most apparent in some emerging economies though the impact of excess capacity is likely to dominate developments in underlying inflation in most economies for some time yet.

## Section 1: Euro Area

### Economic Growth

Having broadly stagnated around mid-year, euro area economic activity expanded in the third quarter, increasing by 0.4 per cent. This represented the first quarter-on-quarter increase in real GDP since the first three months of 2008 and followed a very sharp decline in output around the turn of the year. Over the preceding five quarters, euro area real GDP contracted by close to 5 per cent, a somewhat larger decline than registered in the US economy of under 4 per cent from peak to trough. The third quarter growth rate was primarily driven by a recovery in exports coupled with a positive contribution from the inventories component (see Table 2). A strengthening of the global growth rate supported the former, as activity in advanced

**Table 2: Contributions of expenditure components to percent change in euro area GDP**

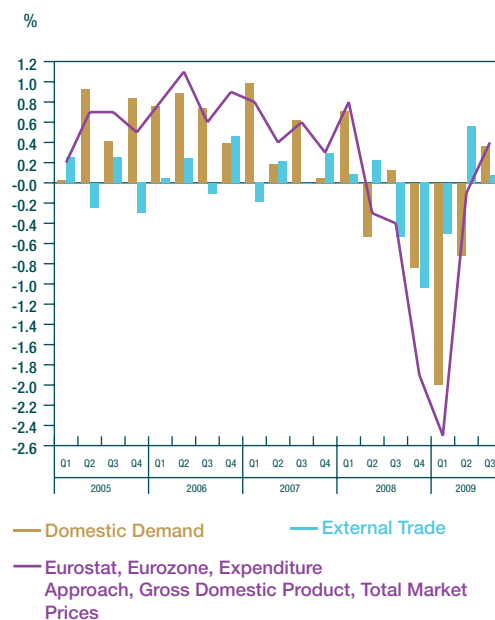
	2008		2009	
	Q4	Q1	Q2	Q3
<b>Personal Consumption</b>	-0.3	-0.2	0.0	-0.1
<b>Government Consumption</b>	0.1	0.1	0.1	0.1
<b>Fixed Investment</b>	-0.9	-1.1	-0.3	-0.2
<b>Inventories</b>	0.2	-0.8	-0.6	0.5
<b>Exports</b>	-3.0	-3.4	-0.4	1.2
<b>Imports</b>	1.9	3.0	1.0	-1.1
<b>GDP</b>	<b>-1.9</b>	<b>-2.5</b>	<b>-0.1</b>	<b>0.4</b>

Source: Eurostat.

economies expanded and GDP growth in emerging economies accelerated. The latter reflected the decisions of euro area firms to start to rebuild stocks after a sharp fall in the preceding period. Domestic demand, on the other hand, remained extremely weak; personal consumption and fixed investment spending declined and were only partly counterbalanced by an increase in government expenditure. The underlying trend in private consumption is particularly weak when one considers that auto sales — boosted by car scrappage schemes — increased sharply in the second quarter, and continued to grow in the third quarter. Finally imports to the region picked up in the third quarter for the first time in six quarters.

Turning to more recent developments, the latest data suggests that the region continued to expand in the final months of last year and in early 2010. Key survey indicators of confidence and activity have continued to strengthen, and there has also been further growth in hard data on industrial production and order books. There is some uncertainty over the pace of this expansion, however, and the outlook remains one of moderate and somewhat uneven recovery. While the global outlook has improved, and suggests that a recovery in euro area exports will now occur at a quicker pace, world trade growth is still expected to be weaker than in the years prior to the downturn. Furthermore, a number of headwinds still exist and suggest that the recovery in domestic demand will occur only gradually. For example, the euro area labour market is not expected to begin to improve for some time, with the OECD forecasting an increase in the average unemployment rate in both 2010 and 2011. Significant excess capacity has developed in the manufacturing sector, which will temper investment demand, while further balance sheet adjustment is required in both the financial and non-financial sectors. The significant support provided to activity from macroeconomic policies will also begin to dissipate given the need for fiscal sustainability to be restored over the medium-term.

**Chart 3: Contributions to Real GDP Growth, 2005-2009**

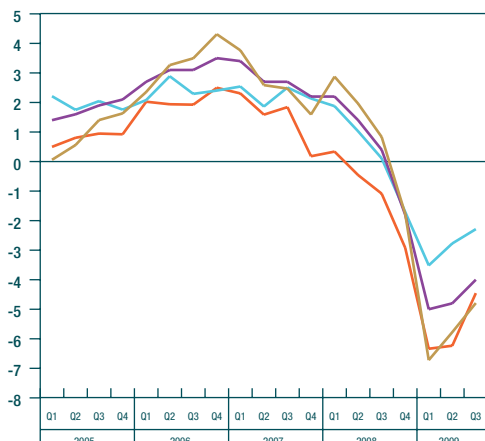


Source: Reuters EcoWin

These developments are reflected in the latest projections by the ECB staff, which were revised upwards in December, but remain consistent with a gradual recovery. The projections anticipate that euro area real GDP

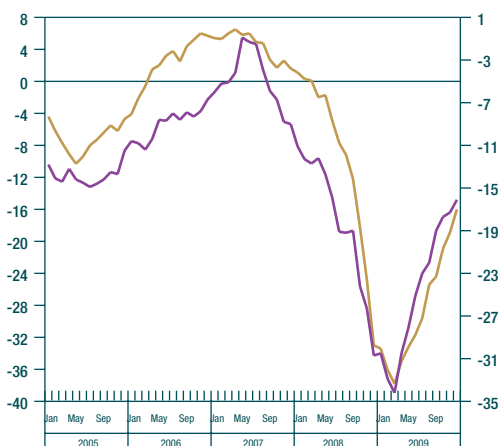
**Chart 4: Euro Area GDP Growth**

% Year-on-Year



— Germany — Eurostat, Euro Zone, Total at market prices, Chain-linked, Chg Y/Y  
— France, Total, EUR, 2000 prices — Italy

Source: Reuters EcoWin

**Chart 5: Euro Area Confidence Indicators**

— Industrial Confidence  
— Consumer Confidence (Right Axis)

Source: Reuters EcoWin

contracted by between 3.9 and 4.1 per cent last year, with growth of between 0.1 and 1.5 per cent expected in 2010 as a whole and between 0.2 and 2.2 per cent in 2011. These figures are broadly in line with those produced by other international organisations. There may be stronger than expected positive effects from the extensive macroeconomic stimulus underway but, on the other hand, there remains the potential for strains in the financial sector to have a stronger than expected impact on the real economy over the projection horizon.

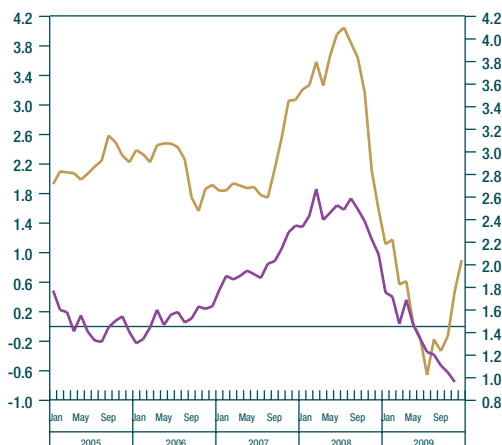
**Inflation — Recent Developments**

Headline HICP inflation in the euro area rose to 0.9 per cent in December, according to a preliminary estimate from Eurostat, having increased sharply from a trough of -0.7 per cent last July. This largely reflects the pattern of base effects in energy and food prices, which declined sharply in the second half of last year from record highs, but have since recovered somewhat. Inflation excluding energy and food prices is showing some signs of stabilising in recent months, from a declining trend earlier last year. Nevertheless, non-energy goods prices appear to be reflecting some transmission of sharp declines in producer prices earlier in the year and euro appreciation. Selling-price expectations, as measured by the European Commission business survey, remain very weak among firms in both manufacturing and services.

Underlying inflationary pressures remain muted. Producer prices declined by 4.4 per cent in the year to October (and by 3.1 per cent excluding energy), although monthly dynamics have stabilised in recent months. Import prices excluding energy prices have also stabilised somewhat, suggesting that previous euro appreciation is feeding into the recovery of profit margins. Labour cost growth moderated significantly over the course of 2009, with annual growth in compensation per

**Chart 6: Euro Area Inflation Indicators**

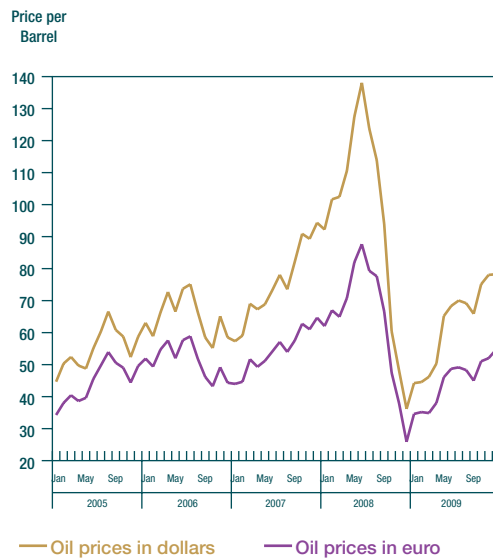
%



— Headline Inflation — Core Inflation

Source: Reuters EcoWin

Chart 7: Oil Prices — Brent Crude



Source: Reuters EcoWin

employee declining to 1.4 per cent in the third quarter from 2.9 per cent in the last quarter of 2008. Much of the adjustment in the first half of the year took place in hours worked rather than in hourly earnings but the burden of adjustment has since shifted to wage rates.

### Oil and Other Commodity Prices

Oil prices increased sharply in early to mid October, from \$68 to nearly \$80 per barrel but subsequently gave up some of these gains in mid December before recovering strongly to \$81 per barrel in early January. Oil prices benefited from increasing optimism regarding the global economic outlook and consequent increases in official forecasts for oil demand. This optimism waned somewhat in December, however, while oil stockpiles were accumulating at the relatively higher prices before renewed optimism and unusually cold weather in the Northern Hemisphere drove prices higher once again.

Food commodity prices increased over the final quarter, recovering from cyclical lows over the summer and with higher energy prices seeing some renewed interest in biofuels. Dairy prices have increased particularly sharply amid

stronger global demand and evidence that low prices during the summer affected supply. Metals prices have either remained stable or increased, reflecting the general effect of higher optimism regarding global economic prospects and specific supply and stockpile issues in each case.

### Inflation — Outlook

HICP inflation is expected to stabilise at, or just above 1 per cent, in the coming months amid much reduced base effects in energy and food prices. Eurosystem staff projections are for inflation to average between 0.9 and 1.7 per cent for the year 2010 as a whole and between 0.8 and 2.0 per cent in 2011. These are generally in line with forecasts from international institutions and the private sector. The expected gradual nature of economic recovery implies significant spare capacity over the medium-term, dampening cost pressures, pricing power and wage developments. Risks to the projections centre on the outlook for economic activity and commodity prices. There is also uncertainty over future changes to indirect taxes and administered prices, given the need for fiscal consolidation.

## Section 2: External Environment

### Emerging EU Member States

The economies of the eight emerging non-euro area EU member states have showed signs of economic recovery since around the middle of last year, though there are significant differences with some economies expanding once again but others merely contracting more moderately. These signs of recovery largely reflect the improved external environment, with the Czech Republic and Poland benefiting in particular due to currency depreciation. Many economies are, however, contending with large imbalances arising from overheating pressures before the crisis. Fixed exchange rate regimes in Bulgaria and the Baltic States has meant that the adjustment from large current account deficits has had to take place through contracting domestic demand, which, for the Baltic States, has been severe. Much of the trade adjustment has by now occurred but

Table 3: Contributions of expenditure components to percent change in US GDP

	2008		2009	
	Q4	Q1	Q2	Q3
Personal Consumption	-2.2	0.4	-0.6	2.0
Government Consumption	0.2	-0.5	1.3	0.6
Fixed Investment	-3.3	-6.6	-1.7	-0.2
Inventories	-0.6	-2.4	-1.4	0.7
Exports	-2.7	-4.0	-0.5	1.8
Imports	3.1	6.6	2.1	-2.6
<b>GDP</b>	<b>-5.4</b>	<b>-6.4</b>	<b>-0.7</b>	<b>2.2</b>

Source: Bureau of Economic Analysis

many economies are faced with impaired banks, large private sector debts and fiscal deficits that will weigh on their recovery. Inflationary pressures are generally muted due to the depth of the slowdown and a key challenge will be preventing deflation from taking hold where monetary policies are constrained. Overall, however, competitiveness has improved markedly, ensuring that the region is well positioned to take advantage of global economic recovery.

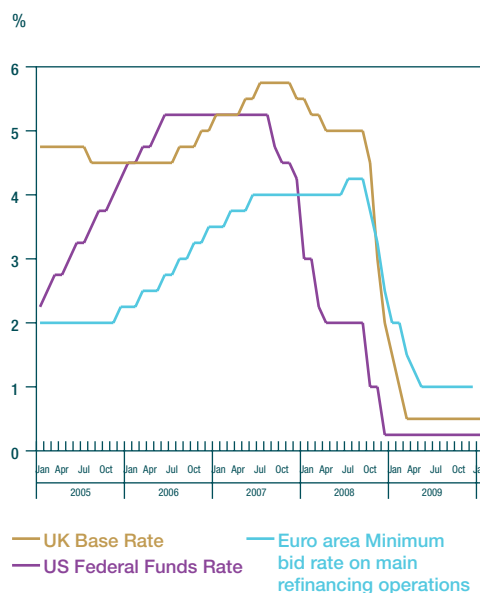
### United States

US real GDP increased by 2.2 per cent in annualised terms in the third quarter, the first expansion in activity since the final months of 2007. According to the US administration, however, this primarily reflected the impact of macroeconomic stimulus policies. As Table 3 reveals, the third quarter expansion received

significant support from personal consumption expenditure. Despite a further pick up in the unemployment rate and a decline in real income growth during the quarter, consumer purchases of durable goods increased sharply, supported by the 'cash for clunkers' programme; new motor vehicle sales grew by an annualised 20 per cent from the preceding quarter. Government spending also made a positive contribution to the growth rate, while the broad stabilisation in fixed investment was notable not only as it followed a rapid decline in preceding quarters, but also because it was partly driven by an increase in residential investment, the first in 3½ years. Again, policy supports appear to have played a key role here, notably tax credits made available to first time buyers. Net exports also increased — against the backdrop of an acceleration in the global growth rate — although reflecting stronger import growth, the external sector as a whole subtracted from the growth rate. Finally, US companies reduced stock levels at a much slower pace during the quarter than earlier in the year and, as a result, inventories also made a positive contribution to the expansion.

The latest economic data has remained positive and suggests that the US growth rate may have accelerated in the final months of 2009. Consumer spending appears to have continued to increase, the labour market is weakening at a more modest pace, and there is evidence that the housing and inventory cycles have stabilised. Nevertheless, looking further ahead, while the latest growth forecasts have been revised up from those published at the time of the last Quarterly Bulletin, activity levels are still expected to increase at a weaker pace than in past recoveries. Following a contraction of 2.5 per cent last year, the OECD

Chart 8: Key Policy Interest Rates

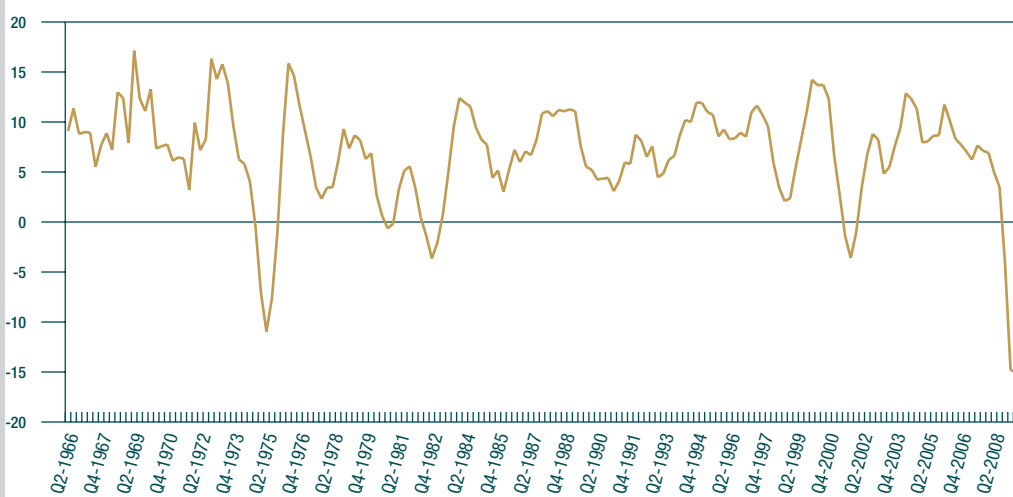


Source: Reuters EcoWin

**Box 1: Global trade and the economic downturn<sup>1</sup>**

One of the most striking features of the recent global downturn was the very sharp collapse in world trade that accompanied it. While external trade has historically experienced larger declines than overall output during downturns, the size of the recent contraction was exceptional. As Chart 1 outlines, world imports recorded their sharpest fall for at least 40 years; from peaking in Q1 2008 to reaching their cyclical trough in the second quarter of last year, world imports fell by 15.6 per cent. By comparison, they recorded a peak to trough decline of 11 per cent during the 1974-75 oil crises, and 3.6 per cent during the recessions that started in 1982 and 2001. As well as being sharp the collapse was sudden, occurring at a much steeper pace than at the start of the Great Depression, and highly synchronised. Both advanced and emerging economies were affected, while there was also a decline across almost every product category.

**Chart 1: World Import Growth (Year-on-Year)**



Source: OECD Quarterly Real Trade Data.

**Source:** OECD Quarterly Real Trade Data.

Why was the decline in world trade so large in the final months of 2008 and the early months of 2009? This appears to have primarily reflected demand-side shocks, and, in particular, the nature of the demand shock that hit the global economy around this period. Growth of external trade was only modestly affected in the early months of the sub prime crisis, but that changed after the collapse of Lehman Brothers in September 2009. This led to a very sharp increase in uncertainty

throughout the global economy. Sentiment levels declined sharply and consumers, firms and investors became extremely risk-averse, delaying purchases and investments that were considered 'postponeable' until they had a clearer idea of how the financial crisis would play out. Highly integrated international supply chains, coupled with better management practices related to information technology, amplified this development, ensuring that the demand shock was transmitted rapidly to the remainder of the global economy. Supply-side effects also appear to have played a role,

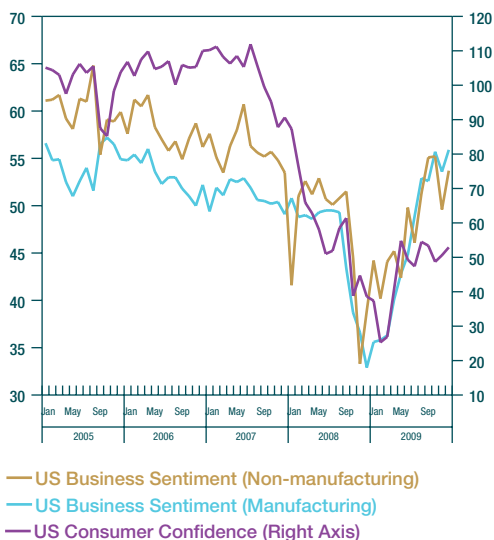
<sup>1</sup> This Box is based on a VoxEU.org Ebook, 'The Great Trade Collapse: Causes, Consequences and Prospects' edited by Richard Baldwin.

albeit to a lesser extent. In particular the lack of trade-credit availability may have been a contributing factor. The fact that the demand shock primarily impacted on 'postponeable' goods, meanwhile, provides an explanation for why the fall in world trade was so much larger than the fall in world GDP. These types of goods — consumer durables and investment goods — make up only a small proportion of world GDP, but a very large percentage of world trade.

The fact that the sudden drop in world trade appears to have been driven by economic agents delaying purchases and investments provides some encouragement going forward. It suggests that, as the uncertainty surrounding the economic outlook dissipates, and as it becomes clear that the worst-case scenarios will not occur, world trade should recover once again. There is already evidence of this; the success of car scrappage programmes in

countries such as the US and Germany have highlighted a renewed willingness amongst consumers to purchase durable goods (albeit under favourable conditions), while world imports have started to increase once again, growing by 3.7 per cent in quarter-on-quarter terms in Q3 2009. Given the significant headwinds that remain in many advanced economies, however, it is still unclear whether a swift recovery in world trade can take place. Most countries experienced a trade rather than a financial crisis. The latter was primarily experienced by a number of advanced economies. Nevertheless, the necessity for balance sheet adjustment at both household and firm level in these advanced countries, coupled with the high level of excess capacity, suggests that it may take some time for a sustainable recovery in demand to take hold. The latest official projections continue to anticipate a gradual trade recovery in 2010 and 2011, underlining this point.

**Chart 9: US Confidence Indicators**



anticipates that real GDP will increase by 2.5 per cent in 2010 and 2.8 per cent in 2011. This expectation of a subdued recovery reflects a number of factors. A full recovery in consumer spending, for example, is likely to be delayed by the weak labour market — the unemployment rate moved into double digits in

the fourth quarter — and the necessity for households to continue to repair their balance sheets. Investment spending is also expected to be slow to return to pre crisis levels. With regard to business investment this reflects high debt levels and the very high level of spare capacity that exists, while despite the stabilising housing market, high vacancy rates and very low builder confidence points to limited growth ahead.

The Federal Reserve's Federal Open Market Committee (FOMC) kept interest rates unchanged at their meetings in November and December, maintaining a target range of zero to 0.25 per cent. There are currently no indications that inflationary pressures are emerging in the economy. The annual change in the Federal Reserve's preferred gauge of inflation — the core PCE deflator — was 1.4 per cent in October, and the FOMC noted that 'inflation will remain subdued for some time'. The Committee did start the process of withdrawing some of its non-conventional measures at its December meeting, announcing that most of the Federal Reserve's special liquidity facilities would expire on February 1, 2010. With regard to policy rates,



however, the Committee continued to note that underlying economic conditions would 'warrant exceptionally low levels of the federal funds rate for an extended period'.

### United Kingdom

Following a 0.2 per cent decline in real GDP in the third quarter of 2009 — the sixth consecutive quarter of contraction — economic activity is set to recover, supported by fiscal and monetary stimuli, a substantial depreciation of the pound sterling and improvements in overall global conditions. However, the pace of the recovery is expected to be slow and possibly uneven, reflecting strong headwinds from balance sheet adjustment, weak labour market conditions and, over the medium term, fiscal tightening. According to the OECD, real GDP is forecast to grow by just over 1 per cent in 2010, following a contraction of 4.7 per cent in 2009.

Examining the latest data, indicators of activity, while still at very weak levels are showing some signs of stabilising or improving, and housing market indicators have continued to improve modestly in recent months. Private consumption, on the other hand, is still very weak and several factors, including high unemployment and tight credit conditions, are likely to restrain spending for some time, and weigh on consumer confidence.

As regards prices, the headline rate of inflation has increased in recent months to reach 1.9 per cent in November, reflecting increasing price pressures from transport. In the near term, inflation is expected to pick up further, as a result of higher petrol price inflation, the reversal of last year's cut in VAT, and the past depreciation of sterling. However, in the medium term, inflation is likely to dip below its 2 per cent target, as spare capacity in the economy is expected to put downward pressure on prices.

### Japan

Having been hit relatively hard by the economic crisis, there have been some signs of a gradual recovery in Japan. Following four quarters of contraction, Japan's economy recorded positive growth in the second and third quarters of 2009, with real GDP expanding

0.7 per cent and 0.3 per cent respectively, as various policy measures taken at home and abroad helped to support output. However, a self-sustaining recovery in domestic demand remains very weak, and as a consequence, the recovery is likely to be dependent on exports. Following a contraction of 5.3 per cent this year, output is forecast to expand by 1.8 per cent in 2010, according to the OECD.

While Japanese exports have been trending upwards since February, reflecting an improvement in the external environment, the December Tankan survey indicated that companies are still cutting costs to protect earnings that are under threat from the recent appreciation of the Japanese Yen, which reached 14-year highs. This, together with poor labour market conditions, is likely to weigh on domestic demand in the coming quarters. Indeed consumer confidence fell in November for the first time in 11 months as consumers become more cautious given the employment and income situation and also as the effect of stimulus measures on consumption begins to fade. Such conditions suggest that the economic activity will remain weak into the first half of 2010.

With respect to price developments, the Japanese government recently declared that the economy is in a "mild deflationary phase" for the first time in three years. Prices (excluding fresh food) declined by 1.7 per cent in the year to November, its tenth consecutive monthly decline, reflecting a decline in the price of oil products, while the substantial slack persisting in the economy as a whole is also putting downward pressure on prices.

### Emerging Asia

Emerging Asia has been recovering strongly due to macroeconomic stimulus packages, some revival in regional trade in Asia and favourable developments in asset and real estate markets. Concerns, however, have been raised recently that the surge in investment capital in East Asia may fuel unsustainable asset price increases.

In China, the strength of economic activity picked up during the first nine months of 2009,

to expand by 8.9 per cent year-on-year in the third quarter, and the latest data points to continued strong growth. Overall, in 2009, GDP growth is anticipated to exceed the government's target of 8 per cent. Based on OECD forecasts, output growth is then expected to reach 10 per cent in 2010, before easing slightly to just over 9 per cent in 2011, as the impact of the fiscal stimulus ends.

The large fiscal package as well as considerable monetary easing has boosted investment growth recently in China, while domestic consumption has remained robust, and there has been a strong recovery in the real estate sector. Furthermore, the strong increase in domestic demand stemming from

stimulus measures has raised imports, while exports, on the other hand, have been rather weak. Concerns, however, are beginning to emerge that record lending may inflate asset prices to levels inconsistent with economic fundamentals, which may pose a real danger to inflation. Consumer prices have been picking up in recent months, and in November turned positive for the first time in ten months, as food prices picked up.

Meanwhile, the Indian economy is also improving on account of monetary and fiscal stimuli, with real GDP expanding 7.9 per cent in the third quarter. At the same time, inflation has recently turned positive once again, the result of a rapid acceleration in food price inflation.

The articles in this section are in the series of signed articles on monetary and general economic topics introduced in the autumn 1969 issue of the Bank's Bulletin. Any views expressed in these articles are not necessarily those held by the Bank and are the personal responsibility of the author.

# A Discussion of the Monetary Condition Index

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## Abstract

The monetary conditions index (MCI) was developed in the early 1990s with the aim of capturing two of the important monetary transmission channels by combining both interest rates and exchange rates. This article examines the development of the MCI and explores the difficulties with implementing it as well as many of the problems associated with interpreting its results. These problems also need to be borne in mind with the recent interest in developing measures of how financial variables affect the economy through the development of financial condition indicators.

<sup>1</sup> The authors are economists in the Monetary Policy & International Relations Department. The views expressed in this article are the personal responsibility of the authors and are not necessarily those held by the CBFSAI or the ESCB. The authors would like to thank Maurice McGuire, Gerard O'Reilly, Rafique Mottiar, Ronan Hickey, Nicola Doyle and Maria Woods for their comments and suggestions.

## 1. Introduction

Monetary policy affects economic activity and inflation through a series of channels, which are collectively known as the transmission mechanism. Changes in the monetary authority's policy rate are generally transmitted into changes in the market and retail interest rates, which can affect households' consumption and saving decisions, firms' investment and borrowing behaviour and finally output and inflation. In a flexible exchange rate economy, changes in the policy rate also affect the value of the domestic currency vis-à-vis other currencies, influencing the competitiveness of domestic exports and imports, and ultimately affecting net trade and hence aggregate demand. In addition to this, exchange rates can also have a direct effect on consumer price inflation, via domestically consumed imported goods.

The Monetary Conditions Index (MCI) was developed in the early 1990s with the aim of providing information on the stance of monetary policy taking into account both the interest rate and the exchange rate channels. It is a weighted average of the short-term interest rate and exchange rate. Initially it was used as an operational target by the Bank of Canada and Reserve Bank of New Zealand, but subsequently its role diminished due to problems in its construction and interpretation, and it is now used less frequently and only as one indicator amongst many in monetary policy analysis. With this in mind, it is not the aim of this paper to contribute to the current conjunctural monetary analysis, but rather to discuss the origins of the MCI and to highlight some limitations and issues relating to its implementation and use.

With the increasing financial complexity of the modern economy, growing attention is paid to how other financial variables including the price of various asset classes affect the economy. Moreover, policy makers have placed an increased emphasis on financial stability considerations given that changes in financial variables affect wealth and balance sheet considerations of various sectors in the economy. This has led to an interest in the development of Financial Conditions Indices (FCI), which seek to provide a simple measure

of how financial market variables impact on the economy above and beyond the standard interest rate and exchange rate channels. However, in many senses the FCI can be seen as an extension of the earlier MCI. Moreover, many of the methodological difficulties associated with the construction of the MCI, as well as many of the caveats and criticisms, are also germane to FCIs.

The article proceeds as follows: Section 2 describes the MCI and its construction in more detail, and identifies possible uses for the index. Section 3 outlines the various important issues related to the index regarding both its methodology and its interpretation, while section 4 looks at the MCI for some major economies, and briefly discusses its movements over the past decade. This article also includes two boxes: the first provides greater technical information on the choice of weights used to estimate unobservable elements of the MCI, while the second box is based on a case study of the Canadian and New Zealand MCI.

## 2. A description of the MCI

The MCI, which was first developed by the Bank of Canada in the early 1990s, is calculated based on a weighted average of changes in short-term interest rates and exchange rates relative to some reference period. It aims to provide information on the economy and inflation for monetary policy analysis. A change in the index indicates how 'tight' or 'loose' monetary conditions in the economy are, relative to a certain reference level.

The most obvious benefits of the MCI are that it is straightforward, easy to understand, and, in the past, was seen as a better indicator than just focusing on interest rates, given the role of the exchange rate in the transmission mechanism. Even though it was used by central banks, international organisations, as well as financial corporations in different ways over the years, it has various shortcomings. It is difficult to operationalise given that it combines a monetary policy tool (interest rate) and a macroeconomic outcome (the exchange rate) and a lot of judgement is required for its calculation.

## 2.1 Definition

The basic formula for the MCI is as follows:

$$MCI = -[\theta_1(R_t - R^*) + \theta_2((e_t - e^*) \times 100)]$$

(Equation 1)

- $R_t$  represents the level of the short term interest rate, and  $e_t$  is the log of the effective exchange rate at a particular point in time  $t$ . If  $e$  increases it implies that the domestic currency is appreciating. Either real or nominal rates for each of these variables can be used. Short-term money market rates are used, as they are closely aligned to the policy rate, and the decisions by monetary authorities transmit quickly into these rates.
- The asterisk denotes the reference level of each of the respective variables. In theory, the reference or base levels for the variables should reflect “neutral” economic conditions, but in practice this is difficult to operationalise, hence a simple average over a period of time is generally used<sup>2</sup>. Rather than focusing on the absolute levels of the variables, changes in the variables with respect to this base level are used. If the  $(R_t - R^*)$  or respectively the  $(e_t - e^*)$  component is positive it means that the current interest rate, or respectively the exchange rate, is higher than that observed on average during the reference period.
- The weights applied to interest and exchange rates,  $\theta_1$  and  $\theta_2$  respectively, typically add up to unity. The ratio  $\theta_1/\theta_2$  reflects the relative impact of the interest rate and exchange rate on the economy as measured by either aggregate demand or prices, although the former method appears to be much more

<sup>2</sup> The short-term rate usually employed is the 3-month interbank rate, and the effective exchange rate is a weighted average of bilateral exchange rates against major trading partners. The difference in the log of the exchange rate is multiplied by 100 in order to express it as a percentage.

<sup>3</sup> Ideally, optimal or equilibrium levels of the interest rate and exchange rate could be used, estimated from a Taylor type rule or an equilibrium exchange rate model, but in practice these are exceptionally difficult to accurately estimate.

prevalent in the literature<sup>4</sup>. Therefore, if there is a rise of  $\theta_1$  percentage points in the interest rate, it will have the same effect on the policy goal as a  $\theta_2$  percent appreciation of the domestic currency, so that a larger ratio will mean a weaker overall affect of the exchange rate in the MCI. There are a number of possible methods to derive these weights, which are outlined in Box 1.

- Finally, a negative sign is usually attached to the overall computation of the index so that, when there is a decline (increase) in the index, as defined by Equation 1 above, it indicates that monetary conditions have tightened (loosened)<sup>5</sup>.

## 2.2 Possible uses

In the implementation of policy, monetary authorities focus on a number of variables, from the ultimate target (frequently inflation) at one end of the spectrum to the policy instruments (such as the short-term interest rate) at the other. Due to long lags and the indirect connections between the target and the instruments, monetary authorities resort to operational targets<sup>6</sup>, information variables and indicators that link the two. These intermediate variables or targets are closely linked to the ultimate target and are influenced by changes in the policy instrument (Freedman, 1994). The MCI falls within this group of intermediate measures, and can be used as an indicator or operational target in the conduct of monetary policy.

When the Bank of Canada developed the MCI in the early 1990s, it was used as an **operational target** in the design of monetary policy, and was then subsequently used in the same way by the Reserve Bank of New

<sup>4</sup> Some commentators criticised the practice of deriving the weights from an aggregate demand function when the overall target was inflation, as was the case in Canada and New Zealand. However, one of the reasons for focusing on aggregate demand is, “because it is the output gap, along with expected inflation, that is the principal driving force behind increases and decreases in the inflationary pressures and it is changes in aggregate demand that are a key determinant of changes in the output gap” (Freedman, 1994).

<sup>5</sup> The rationale for the negative sign is that tighter monetary conditions generally bear down on activity levels and looser policy generally does the reverse.

<sup>6</sup> The operational target of monetary policy is an economic variable, which the central bank aims to control by use of its monetary policy instruments. It is the variable the level of which the monetary policy decision-making committee of the central bank actually decides upon in each of its meetings (Bindseil, 2004).

**Box 1: Calculating the MCI weights**

The MCI, as outlined in Equation 1, contains certain unobservable elements that need to be estimated, namely the reference levels for the interest and exchange rates, and the weights attached to deviations between these variables and their respective reference levels. Overall, the size of  $\theta_1/\theta_2$  should capture the effect of percentage point changes in the interest rate relative to a percentage change in the exchange rate and its accuracy is conditional on the particular model used for estimation. This box reviews the different methods used in the literature to estimate the weights.

Batini and Turnball (2002) posit that there are three main methods for estimating the MCIs' weights:

**Single Equation based MCIs**

One of the most common ways of deriving the weights based on the above rationale involves estimating an aggregate demand function, similar to the following:

$$\Delta y_t = \alpha \Delta R_t + \beta \Delta e_t + x + error$$

Where  $\Delta$  is the first difference operator which captures the change in the variable over time<sup>1</sup>,  $y$  is Gross Domestic Product (GDP),  $R$  is the interest rate and  $e$  is the exchange rate. The subscript  $t$  refers to the current or latest time period. Overall, this function seeks to discover the effect of changes in interest rates, exchange rates and other economic variables, represented by  $x$  in the equation above (i.e. current and lagged values for GDP of main trading partners), on GDP. From this equation,  $\alpha$  and  $\beta$ , the partial derivatives of the interest and exchange rates respectively, can act as the weights  $\theta_1$  and  $\theta_2$ , so that the ratio of the coefficients in equation 1,  $\theta_1/\theta_2$ , equals the ratio  $\alpha/\beta$ .

**Multiple Equation based MCIs**

There are also more elaborate multiple equation-based methods. These methods involve estimating and simulating structural macro-econometric models in which the weights are then obtained from a system of equations rather than just one. The weights can also very often be estimated using vector autoregressive models (VARs), with time series of GDP, exchange rates and interest rates. Subsequently, impulse response functions (IRFs) are derived. The IRFs measure the response of GDP to individual shocks in both the interest rate and the exchange rate. The weights  $\theta_1$  and  $\theta_2$  are then based on a cumulative average responsiveness of GDP to

shocks in the interest and exchange rate respectively over a certain number of quarters. A critical element in the use of this approach is the correct identification of shocks to the relevant variables. Many banks and international organisations use the weights estimated from existing structural macroeconomic models, for example the OECD bases its weights on results from their Interlink Model. MCIs based on large macro-econometric models, especially those that contain a monetary policy reaction function, are more instructive as they take account of more features of the economy.

**Trade share based MCI**

This final method is simpler to calculate. The exchange rate weight is based on the long run exports-to-GDP ratio and the interest rate weight is simply one minus this ratio. The rationale is that this net trade component captures the effect of the exchange rate on GDP relative to interest rates. However, it is used less frequently given the simplicity in relation to the estimation of the weights and, consequently, the lack of detail about the effects of the relevant variables on the economy.

Overall, the multiple equation based model is generally deemed to be optimal, as it takes account of the cumulative lagged impact of the different variables. The dynamics of the underlying model are very important; a model that takes account of the different lags at which an economy responds to changes in interest rates and exchanges rates would perhaps deliver a more accurate index. If a model is too simple, or fails to take into account key characteristics of behaviour, the measurement of the weights can be flawed, meaning that the MCI itself is built on erroneous foundations.

<sup>1</sup>The operator is defined as  $\Delta y_t = y_t - y_{t-1}$ , which is the change in GDP from the previous period.

Zealand between 1997 and 1999 (see Box 2). The rationale for adopting this policy was that it may be difficult to predict the response of the foreign exchange market to a change in the policy rate (Gerlach and Smets, 2000). The theory of uncovered interest rate parity<sup>7</sup> suggests that interest rates and exchange rates are related in a systematic way, although empirically this relationship does not always hold. Hence, there is still no completely clear understanding of the interaction between interest rates and exchange rates.

The method used in the case of the operational target, which was particular to these two countries, involved having an inflation target<sup>8</sup> and deriving a solution for future interest rates and exchange rates consistent with the target after having taken into account domestic and foreign economic conditions. Using these projections the bank was able to derive the so-called 'desired' MCI level, which could represent a range of values rather than point estimates. The forward-looking focus of this approach took into account the lags between the monetary policy stance or changes in it and the effect on the rate of inflation<sup>9</sup>. If the actual level of the MCI deviated from the desired path, the Bank would use the tools at its disposal (for example, the overnight rate) to adjust the index accordingly.

It is important to note that using the MCI as an operational target does not imply an automatic reaction to all exchange rate changes, since the target level of the MCI varies in response to shocks that affect the exchange rate. In the case of an aggregate demand shock, the desired level of the MCI will change, whereas if there is a credibility shock, the target MCI level should remain unchanged *ceteris paribus*. As Charles Freedman, the deputy Governor of the Bank of Canada at the time put it,

*"A lot of judgement goes into it, and there is a lot of cross-checking against important information variables such as the rate of growth of monetary aggregates"<sup>10</sup>.*

<sup>7</sup> The theory of uncovered interest rate parity states that "the exchange rate against a foreign currency deviates from its expected value at some future time by the size of the interest rate differential (over the appropriate horizon) with that country" (Stevens, 1998).

<sup>8</sup> Canada had an inflation range of 1-3 per cent and New Zealand had a target of 0-3 per cent.

<sup>9</sup> For Canada, Freedman (1995) estimated that monetary actions would influence the rate of inflation in about 6 to 8 quarters ahead.

<sup>10</sup> Excerpt from remarks made by Deputy Governor Freedman to the Conference on International Developments and Economic Outlook for Canada, 15 June 1995.

The use of the MCI as an operational target diminished over time, due to pitfalls that emerged when the index was used in this capacity. In particular there was great uncertainty regarding the source of exchange rate movements. A more detailed look at these problems in Canada and New Zealand, are discussed in Box 2.

With the MCI's relevance as an operational target declining, it has increasingly been used as an **indicator** in monetary policy analysis. In this capacity, monetary policy tools are no longer used to adjust the level of the index to a desired path, but rather it merely helps to inform policy makers of the current stance of monetary conditions, and whether they are tighter or looser relative to other periods.

### 3. An evaluation of the MCI

The MCI presents some problems both at the level of construction and in terms of its conceptual and empirical foundations, which are outlined in this section.

#### 3.1 Methodological Issues in constructing a MCI

In constructing a MCI, an initial technical issue is to determine the appropriate **weights**. Since the weights of the components are not directly observable, but are based on econometric estimates, they are highly sensitive to the model used (see Box 1) — i.e. the MCI ratio can suffer from *model uncertainty*. The main pitfalls involved in deriving the weights therefore, vary between the models used and are consequently *model dependent*. The principal problems include capturing the correct *dynamics* of the relationship, as interest rates and exchange rates can affect the economy at different speeds, and *parameter constancy*, which requires that the coefficients from the models used to calculate the weights, must not change depending on the time period used<sup>11</sup>. If these problems are not adequately dealt with, the weights that are derived risk being erroneous and may provide an inaccurate picture of monetary conditions (Eika et al. (1996) and Batini and Turnbull (2002)).

<sup>11</sup> For a further and more detailed discussion of the econometric problems involved in calculating the MCI weights please refer to Eika et al. (1996) and Batini and Turnbull (2002).



**Box 2: MCIs as an operational target — problems in practice**

A number of difficulties and challenges emerged during the period in which the MCI was used as an operational target by both the Bank of Canada (BoC) and the Reserve Bank of New Zealand in the 1990s. Some examples of these problems are highlighted in this box.

While the MCI appeared to be attractive as an operational target for the BoC, it became evident that there were a number of shortcomings. Firstly, there was a tendency on the part of some observers to treat the MCI as a precise short-term target for policy, while the Bank indicated that it should not be treated as a narrow, precise measure. Secondly, the markets started to treat all exchange rate movements as portfolio readjustments on the part of investors (portfolio shocks) and, therefore, came to expect an offsetting interest rate adjustment every time there was a movement in the exchange rate, whether or not such an adjustment was appropriate. In addition, the central bank itself had to make a judgement on the source and likely persistence of the shock to the exchange rate, in order to decide on the appropriate response. Indeed, this caused problems in 1998, when the rapid depreciation of the Canadian Dollar produced accusations of a myopic central bank (Robson, 1998), whereas the BoC argued that the depreciation signalled looser than desired monetary conditions that warranted sharp increases in the policy interest rate.

Given the difficulties mentioned, less emphasis was placed on the role of the MCI as a

measure of monetary conditions in the late 1990s and the early part of the current decade. Subsequently, the MCI was discontinued from being published by the BoC (2006), and has not been used as an input into monetary policy decisions.

Problems also emerged in New Zealand over the period when the Reserve Bank of New Zealand employed the MCI as an operational target (mid-1997-March 1999). In particular, interest rates were increased as an automatic response to a depreciation of the New Zealand Dollar (NZ\$), with little evidence that those interest rate increases were warranted. As a result, interest rates were increased at a time when a serious drought caused severe water shortages in New Zealand, the Asian crisis evolved (1997/1998) and as output growth in the country turned negative. Given the circumstances, this may not have been the most appropriate action. Following the difficulties encountered, the Reserve Bank of New Zealand subsequently acknowledged that they “were slow to recognise the joint impact of the Asian crisis and the beginning of an extended drought through 1997 and early 1998”. They subsequently discontinued using the MCI in this capacity.

Related to this, even if the model for deriving the weights is correctly specified and manages to accurately capture the effects of the interest rate and the exchange rate on the economy, over a certain period of time, there is always the possibility that the monetary transmission mechanism itself (the effect of the interest rate and the exchange rate on output) can change over time for a variety of reasons. Therefore it is vital to monitor this system and ideally to ensure that any changes to how monetary impulses are transmitted to inflation are recognised in the MCI. In practice this may be difficult to achieve.

A further technical issue is whether MCIs should be calculated in terms of **real or nominal variables**. Theoretically, it would seem preferable to express the MCI on the basis of real variables as the real MCI takes account of inflation movements. It is also generally believed that rational agents consider the real rather than nominal rates in their consumption and investment decisions. However, there is evidence that individuals can suffer from money illusion whereby they consider the nominal rather than the real variables in their decision making (Akerloff and Shiller, 2009) (Fehr and Tyran, 2001). Peeters (1999) and Gerlach and Smets (2000) also put forward the

argument that economic behaviour often reacts on the basis of nominal interest rates in the short run. Furthermore, the nominal MCI seems to be a reasonable approximation for the real MCI in the short run, in the context of a low inflation environment. See Costa (2000b) and the ECB (2002).

There are also other factors justifying the use of nominal variables. For example, a nominal MCI may be easier to construct and is also timelier as inflation data needed for the real measure are only available on a monthly basis, as opposed to the daily availability of nominal interest and exchange rate data. However, it should be noted that in a period of high inflation, the nominal index is likely to show more pronounced tightening than the real indices.

The selection of the **MCI components** is also an issue that has received more attention in recent years. Since the MCI components should be in line with the nature of the monetary transmission mechanism and with the appropriate structure of the relevant economy, it has been argued that other factors, such as long-term interest rates<sup>12</sup> and asset prices (i.e. house prices and stock prices), should also be included in the MCI. For the euro area, long-term interest rates play an important role in the monetary transmission mechanism, as investment and consumption behaviour is often dependent upon long-term rates.

Taking into account the increasing debate over the role played by asset prices in the monetary transmission mechanism, through wealth effects and balance sheet effects, the Financial Conditions Index (FCI) has been developed in recent years. Policy makers and international organisations often use the FCI in their assessment of the monetary policy stance. However, the definition of FCIs differs across methodologies. While some researchers compute FCIs that measure the tightness/accommodativeness of financial factors relative to their historical average in terms of an effective policy rate (e.g. Guichard

and Turner, 2008), others measure the estimated contribution to growth from financial shocks in a given quarter (Swiston, 2008).

The FCI extends the MCI approach by including other financial variables, including stock prices, asset prices and long-term interest rates<sup>13</sup>, but similar to the MCI, the index still suffers from certain criticisms, such as model dependency, ignored dynamics and parameter inconsistency. While a full discussion on such an index is beyond the scope of this article, a number of interesting findings are worth noting. Based on research at the BoC, which suggested that asset prices may offer important information about future inflationary pressures, Gauthier, Graham and Liu (2004) estimate a number of FCIs for Canada. They find that the FCI outperforms the MCI in many areas, and also that house prices, equity prices and bond risk premium, in addition to short and long-term interest rates and the exchange rate, are significant in explaining output in Canada. Goodhart and Hofmann (2001), also find that house and share prices are important variables in such an index for G7 countries, and that the FCI contains useful information about future inflationary pressures. A more recent example of the FCI's use is illustrated in a recent paper by Beaton, Lalonde and Luu (2009). It looks at the development and increasing importance of financial conditions in the US during the current crisis. They find that financial conditions have had a large negative impact on US GDP growth in the current recession<sup>14</sup> and that the monetary easing undertaken by the Federal Reserve over the recent financial crisis has not been sufficient to offset the tightening of financial conditions.

A final point related to the selection of the components is that neither money nor credit plays a role in standard representations of a MCI. For example, the same level of a MCI could be consistent with various rates of monetary growth, and in no way calls into question the importance of the money supply in

<sup>12</sup> For countries in which long-term financing relationships play a major role, it would be logically consistent to include a long-term interest rate. Fixed long-term interest rates exert a larger influence on consumption and investment decisions in several countries in Continental Europe, relative to the Anglo-Saxon countries (Costa, 2000).

<sup>13</sup> More recently, lending standards have also been included in FCIs to account for non-price credit conditions (Guichard and Turner, 2008).

<sup>14</sup> Their FCI suggests that financial factors subtracted between 4 and 7 percentage points from quarterly annualised growth in 2009 Q1.

the economy or ultimately the monetary nature of inflation. This is particularly relevant when there are quantity constraints or credit rationing. Given these shortcomings, the MCI should be interpreted with caution regardless of whether it is being used as an operational target, or merely as one indicator among many.

### 3.2 Interpretation Issues

Irrespective of the difficulties in constructing a MCI, interpreting changes in it in terms of their significance for current monetary policy is not easy. Whether it is appropriate or not for a central bank to make a policy change in response to a change in the MCI (in the case of the MCI being an operational target) depends on the factors underlying changes in the components. A given movement of the MCI may have different consequences in terms of the final policy objective. In particular, it is important to determine the nature of shocks causing movements in the exchange rate, and not mechanically follow movements in individual components, as highlighted in the case of New Zealand in Box 2. Furthermore, Siklos (2000) believes that the simplicity of MCIs implies a loss of information when the effects of the component variables are aggregated, as it can obscure the movements of the individual components. King (1997) also makes the point that “any attempt to construct a simple monetary conditions index is akin to adding together apples and oranges”, particularly given that the exchange rate is not a policy instrument and therefore MCIs mix variables that are not of the same nature.

Given the difficulty in determining whether any particular reference period is “neutral” (Banque de France Bulletin Digest, 1996), most implementations focus on changes in the index compared with previous periods, to ascertain if monetary conditions have tightened or loosened, rather than looking at the absolute levels of the index. It is important to note that historical averages do not necessarily represent neutral conditions and furthermore, structural changes in the economy and differences in cyclical conditions may also affect what is understood as neutral conditions.

## 4. Constructing the MCIs

The following section focuses on developments in MCIs for the euro area, the UK and the US over the past decade. It is important to emphasise that the purpose of this section is not to speculate as to which weights may be best or even to assess the extent to which the MCIs portray an accurate picture of the monetary stance.

For each country, there are many plausible alternative weights specified by various institutions and academics. The choice of the weights can affect the overall level of the index and also the rate of change of the indices. In this analysis, a weight of 6:1 is used for the euro area, which is used by the European Commission<sup>15</sup>, and weights of 3:1 and 10:1 are used for the UK and the US respectively. The latter weights have been applied by the IMF in the past. In terms of the data used in the construction of the MCI for each country/area, the short-term interest rate is proxied by the three-month money market rate while a broad trade weighted exchange rate proxies the exchange rate variable. These series are then deflated by consumer price indices<sup>16</sup>. Finally, the base/reference periods refer to the average of both interest and exchange rates from 1993 to present.

### 4.1 MCIs in Practice

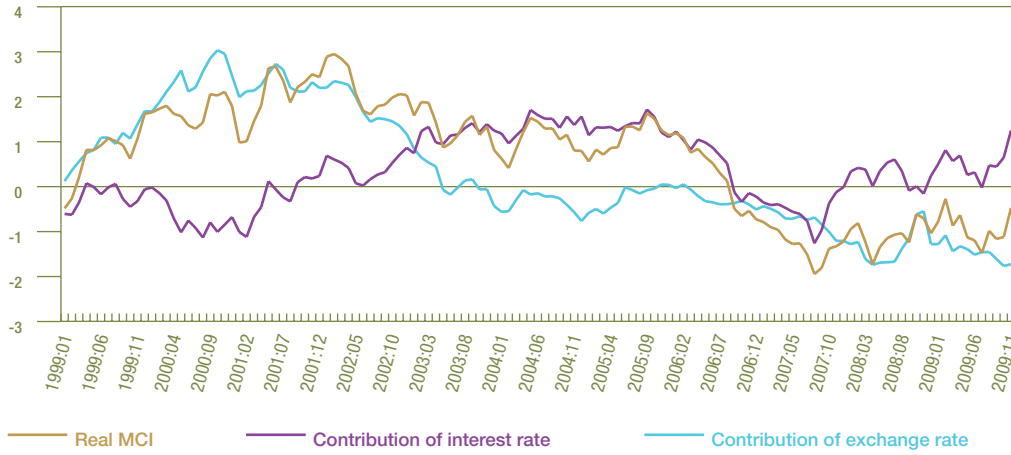
Referring to Chart 1, it is evident that over the sample period (1999-2009) for the euro area, there appears to have been a marked tightening in monetary conditions post 2005, which is consistent with increasing interest rates. Despite the significant economic developments since the financial crisis, the MCI, while volatile, has not shown any substantial changes in its trend. Meanwhile, the MCI for the UK shows its only major shift in trend from around 2007 on. At this point both interest rates and exchange rates contributed to looser monetary conditions. The movement of the US MCI during the sample period has been more variable, and has tended to track changes in the interest rate, given this

<sup>15</sup> This ratio was derived from simulations of the OECD Interlink Model.

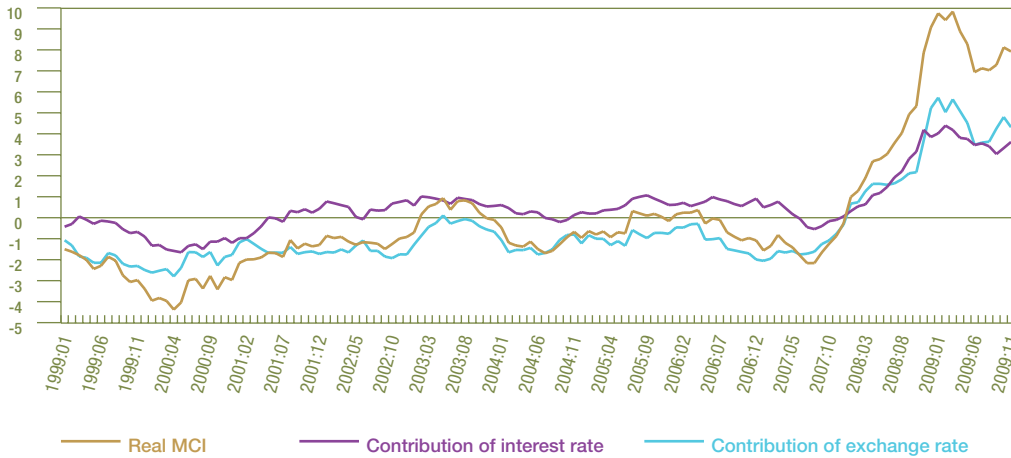
<sup>16</sup> Ex-ante real short-term interest rates were also calculated (using inflation 3-months forward), but the results were very similar.

Chart 1: International MCIs

Euro area MCI (Ratio 6:1)



UK MCI (Ratio 3:1)



US MCI (Ratio 10:1)

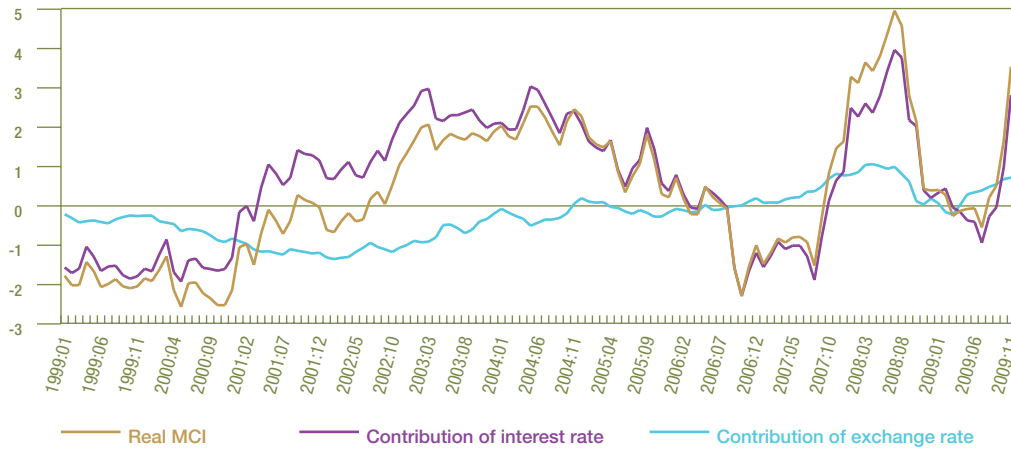
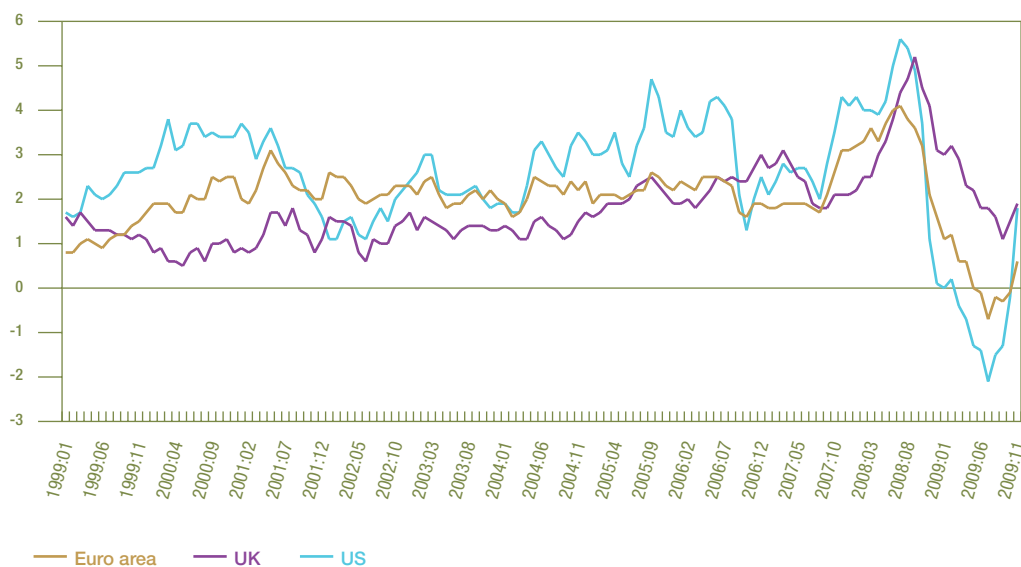


Figure 2: Inflation Rates



component's large weight in the index. Overall, in recent years the movement of the MCI in all three economies has been affected by volatile inflation, which has been reflected in the real interest rate — see Chart 2. However, it is important to note that since the base or reference period is just an average, international comparisons in absolute terms must be applied with prudence<sup>17</sup>.

Finally, when examining the MCI in recent times, it is important to note that the financial turmoil led to heightened spreads between wholesale money market rates, which are usually included in the MCI, and central banks' policy rates. This illustrates some of the difficulties associated with the interpretation of the MCI, as monetary conditions may have tightened according to the MCI, even though policy rates had not changed. The MCI may fail to provide accurate information on what the relevant path for the policy rate should be when there is such a break in the relationship between money market rates and policy rates.

### Conclusion

The Monetary Conditions Index was pioneered by the Bank of Canada in the early 1990s and

was subsequently used by other central banks and international institutions across the world over the following decade. Initially, the MCI was used as an operational target by both Canada and New Zealand, but as problems emerged, it was given a less prominent role in monetary policy decisions, and in more recent times it has been used less frequently and merely as one indicator among a myriad of others (i.e. Taylor type rules) in the assessment of the monetary policy analysis. Therefore the main role of this paper has been to discuss the methodology used and the limitations that are evident, rather than to contribute to current conjunctural monetary analysis.

As an indicator, the MCI can be calculated in both real and nominal terms and used to assess how 'tight' or 'loose' monetary conditions are. It is important to remember that since there is no agreed 'neutral' level of monetary conditions, the index is best interpreted by looking at its movements and how it has changed relative to the past, as opposed to inferring anything about the absolute level.

As highlighted in this paper, the MCI has many shortcomings. In constructing the MCI, the

<sup>17</sup> Banque de France Bulletin Digest, 1996.

weights applied to each variable can vary significantly depending on the model used, so that there can be considerable uncertainty surrounding the appropriate weights. Also, the actual composition of the index may be problematic. Synthesizing the short-term interest rate and the exchange rate into a single index may be inconsistent since it combines a monetary policy instrument and a macroeconomic outcome, which is problematic if their interactions are not fully accounted for. Therefore, any indication of tightening or loosening as conveyed by movements in the MCI must be considered alongside a broader range of indicators. The shortcomings of the MCI have in part led to the development of FCIs, which seek to incorporate additional variables relevant to the economy and for monetary policy analysis. However, many of the problems previously mentioned associated with the implementation and interpretation of MCIs, equally apply to the use of FCIs.

Although the wide uncertainty surrounding its estimation and interpretation makes it an unreliable stand-alone element to assess the monetary policy stance, the MCI tries to proxy two of the most important channels in the monetary transmission mechanism and is simple to construct and a timely indicator. Monetary analysis for policy decisions requires a multi-dimensional and broad-based assessment of all information that may be relevant for price developments, and the MCI can provide complementary and timely information in this context.

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# The Investment Funds Industry in Ireland — A Statistical Overview

by Brian Godfrey, Joe McNeill and Aisling Menton<sup>1</sup>

## Abstract

This article launches a new data series on the assets and liabilities of investment funds (IFs). For the first time in Ireland, individual fund types are identified, including hedge funds. The article discusses how the new data will enhance analysis of the funds industry and their role in financial intermediation. From the establishment of the IFSC in 1987, the size of the IF sector in Ireland has increased rapidly, and Irish resident investment funds (not including money market funds) had €414.6 billion of assets under management in September 2009. Included in the article is a detailed quarterly balance sheet for four different fund types (equity, bond, hedge and other) covering four quarters, starting in the final quarter of 2008. Data on transactions are also included along the same breakdown as assets and liabilities. This article also presents data on money market funds (MMFs), to give a comprehensive overview of the size of investment funds resident in Ireland.

Detailed tables are available for download from the Statistics section of the Central Bank's website, [www.centralbank.ie](http://www.centralbank.ie).

<sup>1</sup> The authors are economist, Deputy Manager, and economist in the Statistics Department. The views expressed in this article are the personal responsibility of the authors. The authors would like to acknowledge the significant contribution of a former member of staff of the Central Bank, Mr. Barra Casey, to the establishment of the data series. The authors would also like to thank the Central Statistics Office and the Irish Funds Industry Association (IFIA) for helping to establish the data series. Finally, the authors would like to thank colleagues in the Statistics Department for their assistance with this publication.

## 1. Introduction

This article provides an introduction to a new data series on the assets and liabilities of investment funds<sup>2</sup> (IFs) which will be released quarterly by the Central Bank. This data, for the first time, provides a breakdown of IF balance sheets by fund type, for example, it separately identifies hedge funds. The use of this new dataset will be discussed in greater detail throughout the article. The data is very important from a national perspective, and alongside this, it has important policy implications, including monetary policy and financial stability analysis, understanding portfolio shifts, and analysing the financial wealth of the non-financial sector. These data are being compiled as part of a European Central Bank (ECB) initiative to provide harmonised statistics on investment funds for the euro area.<sup>3</sup> Detailed breakdowns are provided on the assets held by different types of funds, and on the holders of units issued by the funds. New data on money market funds (MMFs) are also being published to provide a full overview of the investment funds industry in Ireland. Section 2 examines the reasons for introducing the new investment funds statistical series. Section 3 provides an overview of the funds industry in Ireland, and Section 4 outlines how the new reporting requirements were implemented. Section 5 summarises developments for each fund type since the final quarter of 2008, while Section 6 offers some tentative conclusions.

## 2. The Increased Importance of OFIs including Investment Funds

The ECB has collected detailed balance sheet data on central banks and other monetary financial institutions (MFIs), including money market funds, for some time but there were significant data gaps for non-bank financial institutions. This data gap has been recognised by the ECB and other users, particularly in the context of greater financial intermediation and

the increasingly complex interlinkages within the financial sector.

The largest non-bank financial corporation sector is the other financial intermediation (OFI)<sup>4</sup> sector which comprises a number of sub-sectors, including investment funds, financial vehicle corporations (FVCs) and other financial corporations (Chart 1). In recent years in Ireland the OFI sector has increased in importance, through the growth in the size of investment funds and the rise in securitisation. In particular internal securitisations<sup>5</sup>, of which there have been around €25 billion since December 2007<sup>6</sup>, meant that the size of credit to the OFI sector on MFIs' balance sheets became more important as loans were 'reclassified' from the residential mortgage or non-financial corporate sectors to the OFI sector as securitisations were performed. In addition, the number of FVCs resident in Ireland rose alongside increased securitisation activity.

Chart 2 shows how MFI credit to OFIs expanded in recent years in Ireland, primarily as a result of securitisations. OFIs accounted for 20 per cent of total assets of the euro area financial sector in June 2009. IFs (excluding MMFs) accounted for nearly half of this, at €4.7 trillion, with FVCs accounting for a large proportion of the remainder. The size of the OFI sector, and in particular, the IF sub-sector, highlights the need to have greater information on how they influence financial markets and on their role in financial intermediation and monetary policy transmission mechanisms.

As IFs constitute the dominant sub-sector within the OFI sector, the collection of data from these financial entities was deemed the priority by the European System of Central Banks (ESCB). Following an extensive merits and costs appraisal, the ECB passed Regulation ECB/2007/8<sup>7</sup> concerning statistics on the assets and liabilities of investment funds

<sup>4</sup> An OFI is defined as a corporation or quasi-corporation that is engaged mainly in financial intermediation by incurring liabilities in forms other than currency, deposits and/or close substitutes for deposits from institutional entities other than MFIs, or insurance technical reserves.

<sup>5</sup> An internal securitisation occurs when a bank securitises some loans, for example, mortgages, and then repurchases this securitisation, which will appear on their balance sheet as a credit to the OFI sector.

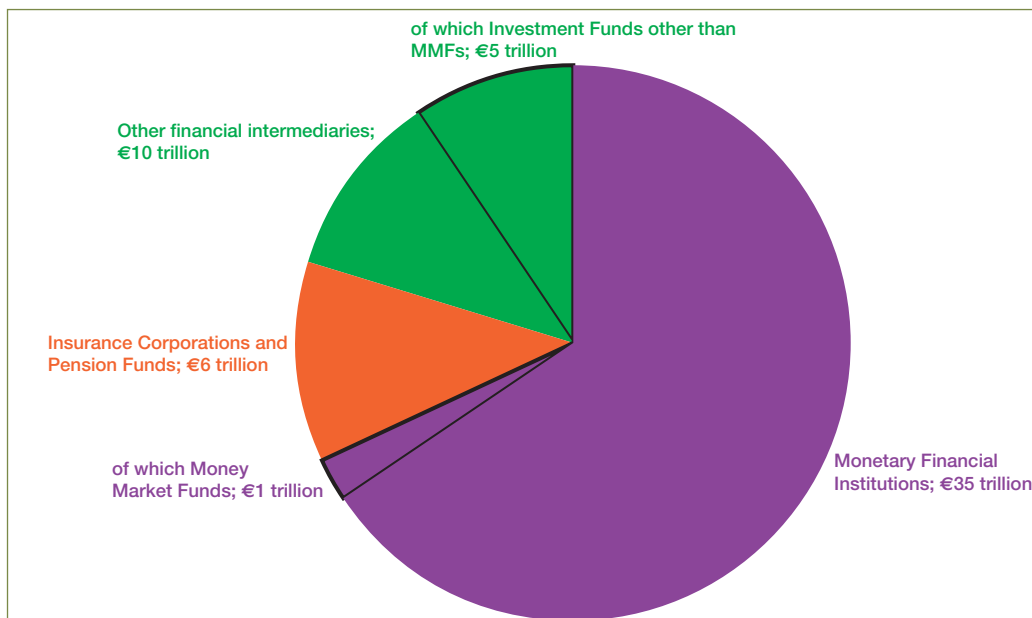
<sup>6</sup> An internal Central Bank estimate.

<sup>7</sup> Regulation (EC) No. 958/2007 of The European Central Bank of 27 July 2007 concerning statistics on the assets and liabilities of investment funds (ECB/2007/8).

<sup>2</sup> Data covered in the statistical series refers to funds authorised in Ireland only.

<sup>3</sup> The first publication of IF monthly data by the ECB, and Ireland, were released on 11 December 2009.

Chart 1: Total Assets of the Euro Area Financial Sector, June 2009

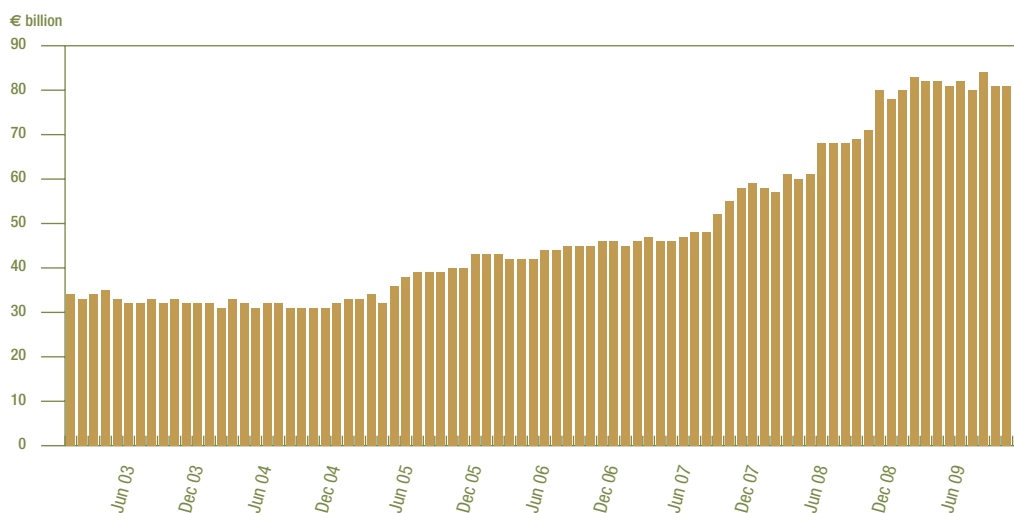


Source: European Central Bank.

in July 2007. The Regulation defines an investment fund as ‘a collective investment undertaking that invests in financial and non-financial assets, to the extent that its objective is investing capital raised from the public’. By contrast, a money market fund invests in short-term, highly liquid money-market instruments

such as commercial paper, and their shares/units are close substitutes for deposits. All IFs were required to report detailed information on their assets and liabilities under the new Regulation for the first time in February 2009 with reference to December 2008 closing balances.

Chart 2: MFI Credit to the Other Financial Intermediation Sector in Ireland



Source: Central Bank of Ireland.

The advantage of the new legislation is that it harmonises the definitions of investment funds in the euro area. Previous investment fund data published by the ECB was compiled on a fragmented basis, but the new Regulation brings a standardised approach in terms of definitions, completeness, and timeliness. The old data series is presented in Chart 3. The new Regulation also provides for the collection of separate data on hedge funds and other fund types, and a more detailed breakdown of the assets and liabilities of IFs. In addition, information on transactions is now available for the first time.

While the planning for the collection of balance sheet and transactions data on IFs was in motion long before the start of the financial turmoil, the crisis highlighted the importance for the ECB to have more information on other financial sectors of the economy that could impact on the liquidity of the euro area banking system. These data would also allow the ECB to monitor the increasing tendency to transfer risks among institutions, sectors and across countries.

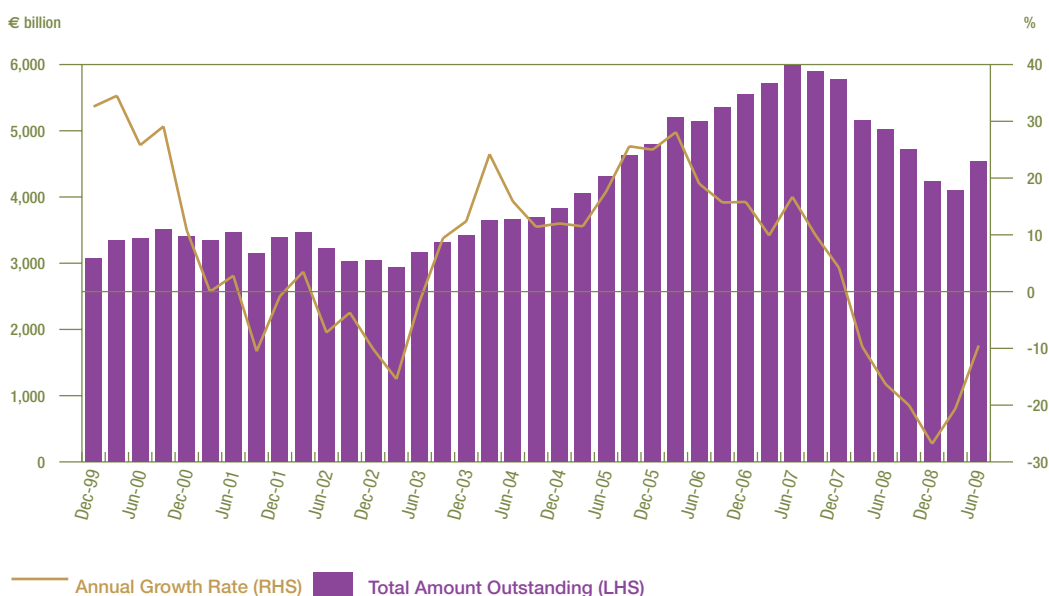
Detailed information on investment funds had been identified as crucial to policymakers for a number of reasons. In particular, the data provide essential information for monetary and financial analysis, on portfolio shifts between

monetary and non-monetary assets, and on the channelling of savings by the non-financial sectors. These insights allow a better understanding of developments in monetary aggregates. It also enables users to monitor portfolio shifts within investment funds' balance sheets and provides information on expectations for inflation and general economic activity.

Moreover, movements in the value of investment fund shares/units held by households and firms may influence aggregate demand, particularly in relation to wealth effects. Changes in the composition and quality of investment fund assets can also impact on financial markets and on liquidity provision. The data are also helpful in understanding developments in financial structures, and the increasing levels of financial intermediation.

Furthermore, the separate identification of specific fund types, and in particular hedge funds, is beneficial from a financial stability perspective, due to their high leverage and the absolute levels of return that they are committed to. The collection of transactions data also helps to monitor the investment behaviour of major institutional investors, and how this impacts on market prices and spreads.

**Chart 3: Total Assets of Euro Area Investment Funds (Old Data Series)**



Source: European Central Bank.

### 3. The Funds Industry in Ireland

The growth of the investment funds industry in Ireland was the result of a number of factors. Ireland was successful in attracting financial corporations, such as fund management, corporate treasury management, banking, etc., to set up in Ireland as a result of a concerted effort to do so, for example, through the establishment of the International Financial Services Centre (IFSC) in 1987. The passing in 1989 of the 'European Communities (Undertakings for Collective Investment in Transferable Securities) Regulations' into Irish law was one of the major factors contributing to the growth of the investment funds industry in Ireland. These Regulations meant that a fund no longer had to be domiciled in an EC country in order to operate in that country, so a fund registered in Ireland could be offered for sale in another Community country. Before these Regulations were in place, a fund had to be resident in a particular country in order to operate in that country and this favoured those countries with access to larger investment markets. Another major factor contributing to the rise of the funds industry in Ireland was the establishment in 1987 of the IFSC. The IFSC established an accommodating fiscal environment to attract funds and other related companies into Ireland, and was very successful in doing so — the number of funds registered in Ireland increased approximately

sixteen-fold between 1992 and 2009. In addition, Ireland could boast a low tax regime, and a highly educated workforce, among other attractive features. The funds industry in Ireland has now extended beyond the IFSC, and indeed Dublin, with companies now established in Galway, Cork, Wexford, etc.

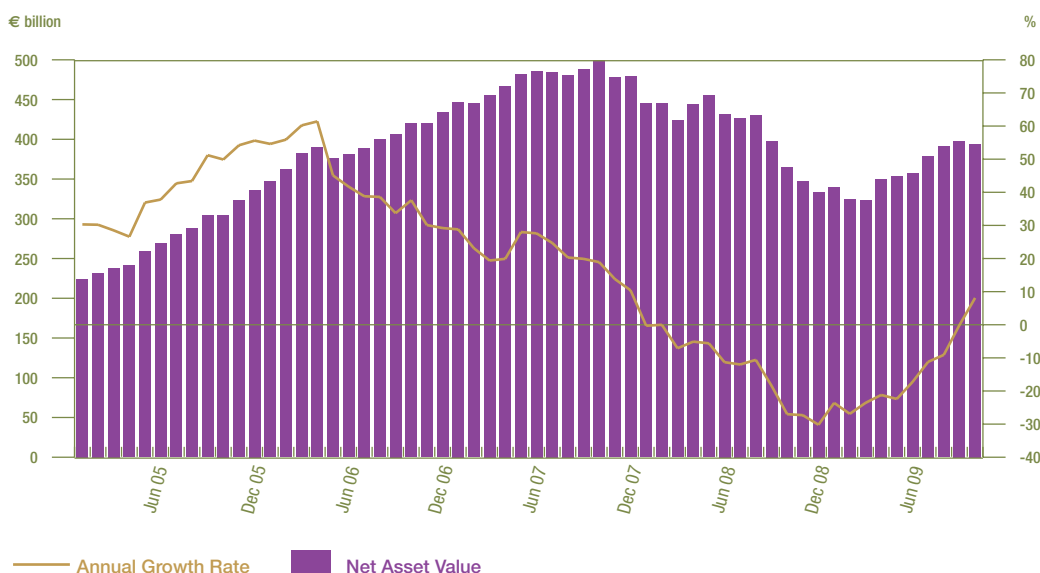
Other European countries that are large in terms of the funds industry include Luxembourg, Germany and France. The difference between Germany and France, and Ireland and Luxembourg, however, is that in Germany and France around 90 per cent of IF shares are held by domestic residents, but in Ireland and Luxembourg, this figure is less than 10 per cent in each country. Chart 4 shows the rapid expansion of the funds industry in Ireland according to the net asset value of funds authorised in the jurisdiction.

### 4. The Introduction of the New Data Series in Ireland

Regulation ECB/2007/8 forms part of a wider European System of Central Banks (ESCB) programme to develop statistics on a security-by-security basis, i.e. where reporting agents provide data on individual securities both held and issued. The Regulation followed the implementation of Guideline ECB/2004/15<sup>8</sup> on

<sup>8</sup> Guideline of the ECB of 16 July 2004 on the statistical reporting requirements of the ECB in the field of balance of payments and international investment position statistics, and the international reserves template (ECB/2004/15).

Chart 4: Annual Growth Rate of the Net Asset Value of Irish Investment Funds



Source: Central Bank of Ireland.

balance of payments and international investment position statistics (BOP/IIP) in 2004. This Guideline requires national central banks to compile the portfolio investment component of BOP/IIP statistics submitted to the ECB on a security-by-security basis.

While the Central Bank is legally responsible for meeting ECB statistical requirements, the Central Statistics Office (CSO) is the recognised competent authority for the compilation of BOP/IIP statistics in Ireland, and, as such, provides the requisite information to the ECB, on behalf of the Central Bank. Given the close links between the statistical requirements under the IF Regulation and the BOP/IIP Guideline, the Bank and the CSO undertook a joint project to integrate both reporting requirements. Collection and compilation of the data is shared by both institutions. This joint approach helps to reduce the reporting burden on funds, avoid duplication of work within the Central Bank and the CSO, and to ensure consistency between various statistical outputs. Investment funds data also provide a key input into the compilation of national and financial accounts.

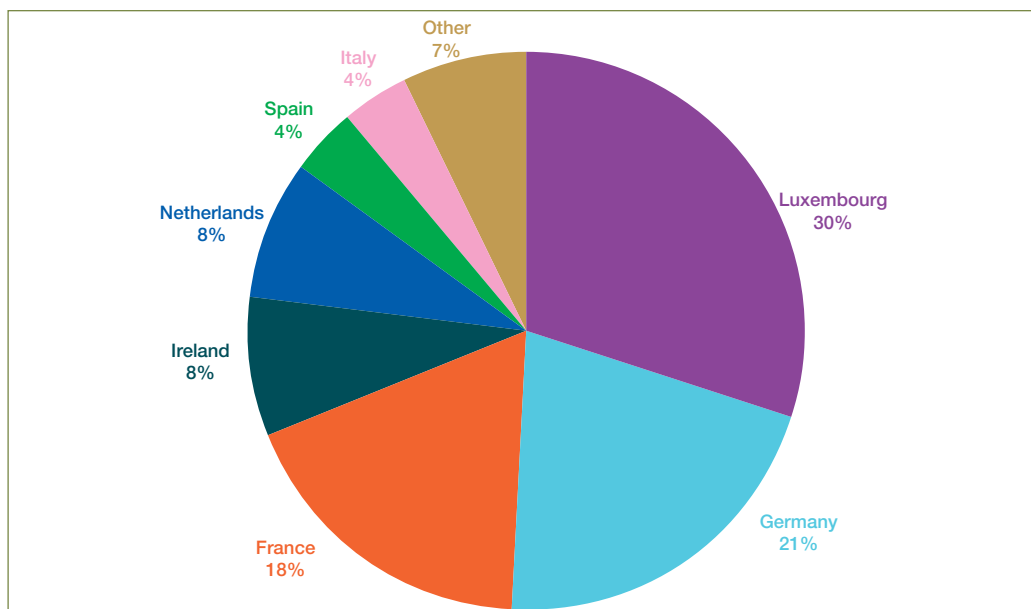
## 5. Description of the New Data Series

Investment funds are required under Regulation ECB/2007/8 to report balance sheet

data to the Central Bank on a fund-by-fund basis, in addition to the investment policy of each fund, as defined in the fund's prospectus. There are six broad fund types, which are defined by the investment strategy of the fund; equity, bond, mixed, hedge, real estate and other. In addition, these fund types are broken down into open-ended and closed-ended funds. Broadly speaking, an open-ended fund is one in which 'the units or shares are, at the request of the holders, repurchased or redeemed directly or indirectly out of the undertaking's assets', and closed-ended IFs are 'IFs with a fixed number of issued shares whose shareholders have to buy or sell existing shares to enter or leave the fund'.

The funds industry in Ireland represented around 8 per cent of total shares/units in issue in the euro area in September 2009, and Ireland is the fourth largest country in the euro area in this regard (Chart 5). Total investment funds in Ireland had assets under management of €414.6 billion in September 2009. This increased by 18 per cent since December 2008, with most of the growth being recorded in the second and third quarters of 2009 as financial markets began to recover. Around €14.5 billion of the growth since end-December 2008 was related to inflows, with the remainder being attributed to positive valuation effects.

Chart 5: Country Shares of Euro Area IF Shares/Units Issued, September 2009



Source: European Central Bank.

**Table 1: Total Investment Funds (excluding MMFs)**

€ million	Q4 2008		Q1 2009		Q2 2009		Q3 2009	
	Stock	Stock	Flow	Stock	Flow	Stock	Flow	
<b>Assets</b>								
Deposits and loan claims	17,063	21,113	3,842	20,160	-4,310	20,400	-277	
Securities other than shares	97,774	96,612	-1,150	111,857	14,421	126,284	12,939	
Issued by euro area residents	33,931	35,254	1,291	32,700	-3,488	38,351	4,917	
Issued by non-euro area residents	63,843	61,358	-2,441	79,157	17,909	87,934	8,021	
Shares and other equity	152,565	162,192	16,569	168,802	-19,289	193,905	3,727	
Issued by euro area residents	37,063	36,662	2,415	34,507	-6,833	41,799	1,950	
Issued by non-euro area residents	115,502	125,530	14,154	134,295	-12,456	152,107	1,777	
Investment fund shares/units								
(incl. MMF shares)	55,879	46,907	-6,647	47,101	-1,669	46,862	-1,228	
Issued by euro area residents	28,083	23,089	-3,940	29,240	5,190	29,385	-340	
Issued by non-euro area residents	27,796	23,818	-2,707	17,861	-6,859	17,478	-888	
Non-financial assets	7,951	9,172	1,480	15,100	4,215	15,325	282	
Other assets	18,699	12,193	-6,123	12,877	804	11,789	-3,109	
<b>Liabilities</b>								
Investment fund shares/units	329,489	331,357	10,854	357,078	-7,534	396,724	13,943	
Loans and deposits received	1,857	986	-881	661	-243	528	-190	
Other liabilities	18,586	15,847	-2,001	18,158	1,948	17,314	-1,422	
<b>Total Assets/Liabilities</b>	<b>349,931</b>	<b>348,190</b>	<b>7,972</b>	<b>375,897</b>	<b>-5,828</b>	<b>414,566</b>	<b>12,333</b>	

A key feature of the new reporting is the requirement to provide asset and liability information by individual security, with publically available identifier codes. Reporting by individual security has many advantages. Firstly, the securities can be linked to a large database<sup>9</sup> available to the ESCB, containing a wide range of attributes including price, sector and country of issuer, and issue and maturity dates, to generate a range of statistical outputs. Secondly, it allows the derivation of monthly estimates by updating the prices of the securities held. It also enables analysis of the structure of, and developments in, financial wealth arising from changes in the valuation of security portfolios held by households and non-financial corporations. The data will facilitate greater analysis of the risk exposures by these sectors, even before any financial stress is identified, which will be useful for monetary policy and financial stability analysis. Information on the individual securities issued or held by funds allows the ECB and national central banks to monitor more closely the impact of any distressed or defaulting securities, both on the funds industry itself, and

on the other economic sectors holding these securities.

The balance sheet data collected includes a detailed breakdown of the assets of investment funds, and a less extensive breakdown of their liabilities. For each type of fund, breakdowns by financial instrument and by sector and geography of counterparty are provided. More details on these breakdowns are provided in Box 1.

### 5.1 Equity Funds

Equity funds are investment funds that invest primarily in shares and other equity. In Ireland, equity funds are the predominant fund type and accounted for over 47 per cent of the value of total shares/units in issue in the third quarter of 2009 (Table 2). This is up from 44 per cent of total shares/units in issue as of the fourth quarter of 2008, mostly at the expense of mixed funds, and is in contrast to the overall euro area statistics, where equity funds are the second largest fund type accounting for 28 per cent of total shares/units in issue in the third quarter of 2009.

<sup>9</sup> The ECB's Centralised Securities Database.

**Box 1: Description of the Balance Sheet Data Collected<sup>10</sup>**

The assets side represents the investment portfolio of investment funds, and data is collected according to six instrument categories. The largest investments by funds are in shares and other equity, excluding holdings of other IFs' shares/units, which are identified separately in the tables. After equities, IFs invest mostly in securities other than shares, or more simply, bonds.

Deposits and loan claims include all deposits that IFs have placed with banks and other institutions. This category also includes any loans than an IF may have advanced. Non-financial assets details IFs' holdings of all non-financial assets, such as real estate and commodities. Finally, remaining assets comprises financial derivatives with a positive market value, and all other assets which are not classified above. This could include accrued interest.

There is less detail on the liabilities side of the balance sheet due to the fact that the main category is IF shares/units in issue, which account for around 95 per cent of total liabilities. These are the units sold by the funds to the public in order to raise capital to make investments. This item is the equivalent of the net asset value (NAV) of the fund, which is the total value accruing to the investors/shareholders of the fund. Loans and deposits received cover all cash balances that a fund has received, such as a loan to make an investment or money received from the sale of shares/units. Finally, other liabilities are all remaining liabilities not captured in the above categories, including financial derivatives with a negative market value, and interest/dividends due but not yet paid on loans or deposits received, etc.

One of the new features of the data is the breakdown of the balance sheet by geography and by sector. Geography gives the residency of the counterparty of the IF for both assets and liabilities for each financial instrument category, according to three main regions: Ireland; other monetary union member states; and rest of the world.

The sectoral breakdown gives information on the economic sector of the counterparty. This is broadly broken down into monetary financial institutions (MFIs), general government and other non-bank, non-government sectors. Finally, a maturity breakdown for certain instruments, such as securities other than shares is provided. This category is also provided on a currency basis.

In addition to stocks, national central banks had the option to collect either revaluations or transactions data along the same balance sheet breakdown as detailed above. The Central Bank collects transactions data, and from these revaluations are calculated. This allows changes in stock to be broken down between those arising from transactions and those arising from market movements or other valuation effects.

On the basis of the detailed security-by-security quarterly data reported to the Central Bank, an estimation of monthly balance sheet data, and transactions, are derived. In Ireland, all funds (IFs and MMFs) also report their NAVs to the Central Bank each month. The NAV of a fund is the total market value of the assets of a fund after all debts have been paid; more simply, it is the total value accruing to the investors/shareholders of the fund. In addition to the NAV, funds also report their issues and redemptions of shares/units, and net proceeds over the month. These monthly data are used to estimate IFs' balance sheets by fund type in those months that are not reported to the Central Bank, i.e. off-quarter months, for example, January and February. In addition, pricing information from the ECB securities database is matched with the detailed securities breakdown to provide monthly revaluations by type of fund. These monthly breakdowns are also supplied to the ECB.

<sup>10</sup> ECB, 'Euro Area Investment Fund Statistics (Other than Money Market Funds) — Explanatory Notes, December 2009, [www.ecb.int](http://www.ecb.int).



Trends in the data largely reflect movements in financial markets (Chart 6). The earlier part of 2009 saw large declines in worldwide stock markets, with some of the main equity indices falling by between 20 and 25 per cent from the start of 2009 up to early March. This was reflected in the funds data, with a drop in the value of equity funds of around €10 billion between January and February 2009, with an overall fall of €6.3 billion between the fourth quarter of 2008 and the first quarter of 2009. Since then the value of equity funds have steadily increased with gains of about 39 per cent between the first quarter of 2009 and the third quarter of 2009. This was due to a combination of improved performance in equity markets, and new inflows into these funds.

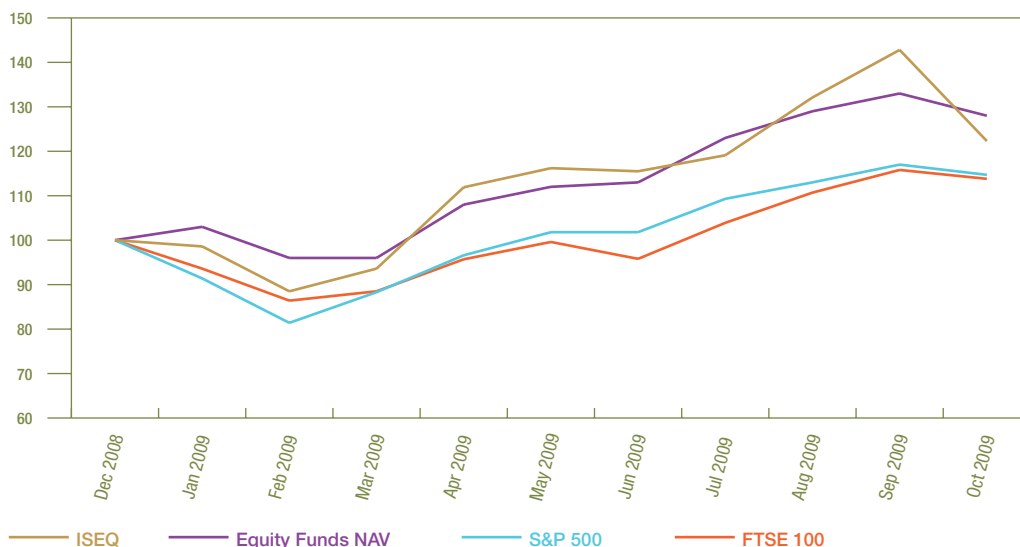
As expected, shares and other equity make up the majority of total assets of equity funds. In the fourth quarter of 2008 they accounted for about €115.2 billion of total assets of €145.2 billion. Over 77 per cent of shares and other equity held by IFs were issued by non-euro area residents, with IFs' holdings of these shares increasing during 2009, reaching 83 per cent by the third quarter. Developments in transactions in shares and other equities are noteworthy, as shown in Table 2. While overall the transactions were positive in the first three

quarters of 2009, there were negative transactions, or outflows, from shares and other equities issued by euro area residents, which were offset by the positive inflows by funds into equities issued by non-euro area residents. Most of the outflow from euro area residents was from non-financial corporates resident in other monetary union member states.

The statistics show that the value of shares and other equity increased by €42.8 billion from the fourth quarter of 2008 to the third quarter of 2009. Approximately €35 billion of the increase was due to positive valuation effects, with the balance of about €7.6 billion due to inflows. In general, positive valuation may increase consumption as a result of a wealth effect. It should be noted, however, that holders of investment fund units are primarily residents of non-euro area countries or financial institutions.

In the third quarter of 2009, the second largest asset category for equity funds resident in Ireland was investment fund shares/units, including MMF shares/units. These represent investments in shares/units issued by other investment funds. This stood at €13.6 billion in the fourth quarter of 2008 and remained fairly static in value terms up to the third quarter of 2009. There was, however, a small outflow during 2009, amounting to €1.7 billion.

Chart 6: Stock Market Indices and Equity Funds' Net Asset Value (31/12/2008 = 100)



Source: Central Bank of Ireland and Thomson Reuters Datastream.

Table 2: Equity Funds — Amounts Outstanding and Transactions

€ million	Q4 2008			Q1 2009		Q2 2009		Q3 2009	
	Stock	Stock	Flow	Stock	Flow	Stock	Flow	Stock	Flow
<b>Assets</b>									
Deposits and loan claims	4,185	3,943	-587	4,464	1,102	4,796	-419		
Securities other than shares	6,945	4,921	-1,986	5,356	389	12,209	7,294		
Issued by euro area residents	2,212	1,850	-275	2,001	209	4,777	2,787		
Issued by non-euro area residents	4,733	3,071	-1,711	3,355	180	7,432	4,507		
Shares and other equity	115,228	113,351	5,017	136,729	494	158,060	2,116		
Issued by euro area residents	26,212	20,917	-2,741	23,144	-1,444	27,657	-384		
Issued by non-euro area residents	89,016	92,434	7,758	113,585	1,939	130,403	2,501		
Investment fund shares/units (incl. MMF shares)	13,583	12,038	-582	13,044	-915	13,461	-180		
Issued by euro area residents	8,423	7,216	-832	8,437	-107	9,326	351		
Issued by non-euro area residents	5,160	4,822	250	4,608	-808	4,134	-531		
Non-financial assets	2,862	3,480	677	2,439	-791	2,922	210		
Other assets	2,360	1,926	-548	1,765	-304	1,766	19		
<b>Liabilities</b>									
Investment fund shares/units	143,851	137,557	1,158	161,844	378	190,756	8,444		
Loans and deposits received	1	0	-6	3	2	23	21		
Other liabilities	1,311	2,101	838	1,951	-406	2,433	576		
<b>Total Assets/Liabilities</b>	<b>145,163</b>	<b>139,659</b>	<b>1,990</b>	<b>163,798</b>	<b>-25</b>	<b>193,213</b>	<b>9,041</b>		

Securities other than shares accounted for just under 5 per cent of total assets of equity funds in the fourth quarter of 2008, increasing slightly to 6 per cent in the third quarter of 2009.

Overall transactions in securities other than shares over the period amounted to inflows of €5.7 billion, with the majority of transactions occurring in the third quarter of 2009. The remainder of assets held by equity funds are made up of deposits and loan claims, non-financial assets and other assets.

As is the case with all fund types, the vast majority of liabilities of equity funds are investment fund shares/units in issue by the funds. In the fourth quarter of 2008, this figure was €143.9 billion and rose to €190.8 billion in the third quarter of 2009, and accounted for 98.7 per cent of total liabilities. Transactions over this period amounted to about €10 billion with the majority of these inflows coming in the third quarter of 2009 at €8.4 billion. The rest of the increase between the quarters was due to €37 billion of positive revaluation effects.

Over half of equity funds' shares in issue are held by rest of the world residents, for which no sectoral breakdown is gathered. For Ireland and other euro area countries, the main counterparty to these shares in the third quarter

of 2009 was OFIs, followed by insurance corporations and pension funds.

## 5.2 Bond Funds

Bond funds invest primarily in securities other than shares. These include IFs' holdings of all negotiable debt securities, such as government and corporate bonds, treasury and local authority bills, commercial paper and certificates of deposit. Bond funds accounted for around 25 per cent of total shares/units in issue in Ireland in the third quarter of 2009; these are the second largest fund type in Ireland. Conversely euro area statistics show that bond funds are the largest fund type in the euro area, accounting for 32 per cent in the third quarter of 2009.

The value of bond funds increased by over €14 billion between the fourth quarter of 2008 and the third quarter of 2009, with around €7 billion due to inflows and the remainder due to valuation changes, reflecting a movement by investors into higher grade bonds, such as government bonds or AAA bonds. This follows closely the movements seen in sovereign debt markets, as yields across maturities fell and prices increased due to investors looking for less risky assets. Interestingly, large inflows occurred in the second quarter of 2009, even as stock markets had begun to recover.

**Table 3: Bond Funds — Amounts Outstanding and Transactions**

€ million	Q4 2008		Q1 2009		Q2 2009		Q3 2009	
	Stock	Stock	Flow	Stock	Flow	Stock	Flow	
<b>Assets</b>								
Deposits and loan claims	2,223	1,357	-631	1,633	-928	1,550	-123	
Securities other than shares	76,276	77,533	767	83,882	6,299	89,954	4,386	
Issued by euro area residents	27,973	26,556	-1,814	25,748	-1,636	28,119	1,598	
Issued by non-euro area residents	48,303	50,977	2,581	58,134	7,934	61,835	2,788	
Shares and other equity	1,024	2,099	1,184	2,238	-493	1,058	-1,455	
Issued by euro area residents	264	180	-140	277	-60	312	-28	
Issued by non-euro area residents	760	1,919	1,323	1,961	-433	746	-1,427	
Investment fund shares/units (incl. MMF shares)	3,885	3,530	-87	2,914	-802	2,903	128	
Issued by euro area residents	2,316	2,015	-274	1,791	-407	1,767	87	
Issued by non-euro area residents	1,569	1,516	187	1,123	-394	1,136	40	
Non-financial assets	877	2,095	1,246	6,055	2,194	7,158	1,210	
Other assets	6,511	4,728	-1,892	4,268	-120	4,235	-1,441	
<b>Liabilities</b>								
Investment fund shares/units	83,481	83,713	112	90,636	2,960	97,690	3,769	
Loans and deposits received	107	129	21	74	-62	78	-34	
Other liabilities	7,208	7,502	454	10,281	3,252	9,091	-1,032	
<b>Total Assets/Liabilities</b>	<b>90,796</b>	<b>91,344</b>	<b>587</b>	<b>100,991</b>	<b>6,150</b>	<b>106,859</b>	<b>2,703</b>	

The largest proportion of assets on the balance sheet of Irish resident bond funds were securities other than shares, which amounted to around 84 per cent of total assets in the third quarter of 2009. Over two-thirds of securities other than shares held were issued by non-euro area residents. These investments were primarily in less liquid, longer maturity securities, of over two years. Inflows of €11.4 billion occurred between the start of the first quarter of 2009, and the third quarter of 2009, with €6.3 billion of these inflows occurring in the second quarter of 2009.

Shares and other equity made up a small amount of the total assets of bond funds; in the third quarter of 2009 they amounted to just under 1 per cent of total assets. Combined with shares issued by investment funds, including MMFs, just over half of the shares held by bond funds were issued by euro area residents. Non-financial assets, which include property and commodities, increased steadily from €877 million in the fourth quarter of 2008 to €7.2 billion in the third quarter of 2009. Around €4.7 billion of this was due to net inflows with the remainder attributable to positive valuation effects.

The largest category on the liabilities side of the balance sheet is investment fund shares/units, which accounted for around 90 per cent of total liabilities over all the quarters. Their value increased from €83.5 billion in the fourth quarter of 2008 to €97.7 billion in the third quarter of 2009 and in 2009 there was €7 billion of positive valuation changes and the remainder attributable to net inflows.

The next largest category is other liabilities, which increased from just over €7 billion in the fourth quarter of 2008, to €9.1 billion in the third quarter of 2009; however there was a net outflow of just over €1 billion in the third quarter of 2009, in contrast to net inflows of over €3 billion in the previous quarter. The remainder of liabilities were loans and deposits received which comprised only 0.07 per cent of total liabilities in the third quarter of 2009.

### 5.3 Hedge Funds

Data from the ECB show that hedge funds accounted for 2 per cent of total IF shares/units in issue in the euro area in September 2009. Ireland accounted for half of the euro area total; the next closest country was Luxembourg, at 19 per cent. Hedge funds in Ireland accounted for 9 per cent of shares in issue by funds resident in Ireland, or €38 billion in value terms.

Table 4: Characteristics of Hedge Funds

<b>Return objective</b>	Positive absolute returns under all market conditions, without regard to a particular benchmark. Usually managers also commit their own money; therefore, the preservation of capital is very important.
<b>Investment strategies</b>	Position-taking in a wide range of markets. Free to choose various investment techniques, including short-selling, leverage and derivatives.
<b>Incentive structure</b>	Typically 1-2 per cent management fee and 15-25 per cent performance fee. Quite often high watermarks apply (i.e. performance fees are paid only if cumulative performance recovers any past shortfalls) and/or a certain hurdle rate must be exceeded before managers may receive any incentive allocation.
<b>Investor base</b>	High net worth individuals and institutional investors. High minimum investment levels. Not widely available to the public. Securities issued take the form of private placements.

**Source:** Garbaravicius and Dierick, 2005.<sup>11</sup>

There is no legal or even generally accepted definition of a hedge fund. For investment fund statistics, the ECB's Guideline on Monetary Financial Institutions and Markets Statistics<sup>12</sup> defines a hedge fund as:

'any collective investment undertaking, regardless of its legal structure under national laws, which applies relatively unconstrained investment strategies to achieve positive absolute returns, and whose managers, in addition to management fees, are remunerated in relation to the fund's performance. For that purpose, hedge funds have few restrictions on the types of financial instrument in which they may invest and may therefore flexibly employ a wide variety of financial techniques, involving leverage, short-selling, or any other techniques. This definition also covers funds that invest, in full or in part, in other

hedge funds provided that they otherwise meet the definition.'

Some hedge fund characteristics are outlined in Table 4.

The role of hedge funds and their implications for financial stability has been debated extensively in light of the financial crisis. On the one hand, hedge funds are recognised as contributors to the provision of liquidity and the integration of financial markets, while on the other hand, concerns have been raised that they are a possible source of counterparty risk.

The balance sheets of Irish resident hedge funds have a markedly different make-up compared to other fund types. Hedge funds hold just under one quarter of their assets in the form of deposits and loan claims; this compares with 5 per cent for total funds in September 2009. These higher levels of deposits may in fact be margin accounts that funds hold. Hedge funds are known to engage in short-selling, along with many other varied

<sup>11</sup> Garbaravicius, T and F. Dierick (2005), 'Hedge Funds and Their Implications for Financial Stability', ECB, August.

<sup>12</sup> Guideline of the European Central Bank of 19 December 2008 Amending Guideline ECB/2007/9 on Monetary, Financial Institutions and Markets Statistics (Recast) (ECB/2008/31).

**Table 5: Hedge Funds — Amounts Outstanding and Transactions**

€ million	Q4 2008		Q1 2009		Q2 2009		Q3 2009	
	Stock	Stock	Flow	Stock	Flow	Stock	Flow	
<b>Assets</b>								
Deposits and loan claims	7,525	10,143	2,807	9,207	-3,187	8,573	-579	
Securities other than shares	5,497	2,540	-2,999	4,230	1,802	4,393	-224	
Issued by euro area residents	997	2,849	1,991	1,351	-1,451	759	-815	
Issued by non-euro area residents	4,500	-309	-4,991	2,878	3,253	3,634	590	
Shares and other equity	8,396	12,230	3,393	8,515	-3,547	9,711	1,168	
Issued by euro area residents	3,154	6,332	2,967	4,636	-1,783	4,993	398	
Issued by non-euro area residents	5,242	5,898	426	3,879	-1,764	4,718	769	
Investment fund shares/units								
(incl. MMF shares)	8,094	8,555	617	15,505	7,877	14,385	-1,449	
Issued by euro area residents	1,574	942	-650	9,899	10,254	8,760	-1,013	
Issued by non-euro area residents	6,520	7,612	1,267	5,606	-2,377	5,624	-436	
Non-financial assets	939	973	68	572	-761	65	-504	
Other assets	1,664	787	-701	1,510	1,550	1,245	-475	
<b>Liabilities</b>								
Investment fund shares/units	27,162	32,841	5,531	37,527	3,869	37,135	-986	
Loans and deposits received	487	452	-33	284	-76	54	-204	
Other liabilities	4,466	1,935	-2,312	1,727	-58	1,182	-873	
<b>Total Assets/Liabilities</b>	<b>32,115</b>	<b>35,228</b>	<b>3,186</b>	<b>39,538</b>	<b>3,734</b>	<b>38,372</b>	<b>-2,063</b>	

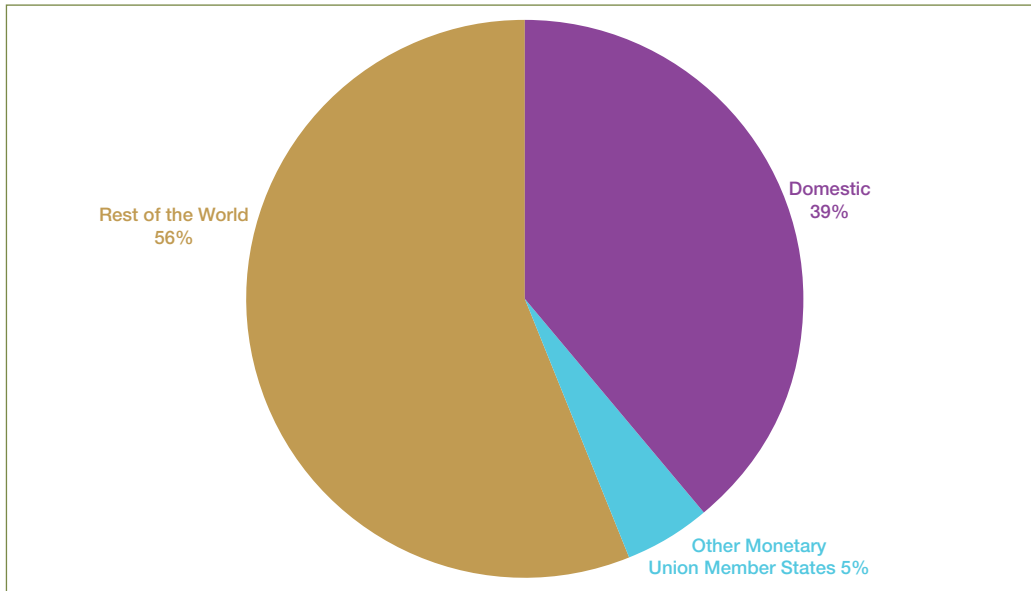
investment strategies, and margin accounts are one of the components of short-selling. Another key characteristic of some hedge funds is the use of leveraging, which is the use of debt for investment purposes. Due to the minimal amount of borrowing on the liabilities side of the balance sheet, the data show that Irish resident hedge funds are not using the more conventional method of leveraging, i.e. borrowing. This does not mean that Irish hedge funds are not leveraging as they may be using the margin accounts on the assets side of the balance sheet as a form of leveraging.

The largest asset type held in September 2009 was shares/units issued by other investment funds, including MMFs. Many hedge funds are funds-of-funds; these are funds that invest only in the shares of other funds. This high proportion of shares of other funds may also reflect the investment policy of hedge funds, which is primarily to maximise their return on investments. In the second quarter of 2009,

hedge funds made net investments of almost €8 billion in other funds, which counteracted a reduction of €6.7 billion in equities and deposits over the same period. As with most other fund types, the majority of the assets that are held by Irish resident hedge funds are from outside the euro area. However, as Chart 7 demonstrates, the proportion of assets held by hedge funds that have Irish resident counterparties is two-fifths, which is much higher than for total funds. This reflects the fact that fund-of-funds hedge funds are investing in other funds resident in Ireland.

On the liabilities side, the same is true for Irish resident hedge funds' shares in issue — residents outside the euro area held 70 per cent in the third quarter of 2009. A sectoral breakdown of counterparties is not available outside the euro area, but Irish residents' holdings of hedge funds' shares are dominated by OFIs, insurance corporations and pension funds.

Chart 7: Irish Resident Hedge Funds — Assets by Location, September 2009



Source: Central Bank of Ireland.

Overall, the balance sheets of Irish resident hedge funds are quite diverse when compared with the other fund types. It is difficult to analyse how diverse hedge funds are due to their investment strategies, the use of complex investment products and short-selling. While hedge funds hold primarily longer-term securities, their holdings of short-term securities are affected by the convention of reporting short positions as negative assets.

#### 5.4 Other Funds

'Other funds' consist of three remaining fund types; mixed funds, real estate and other funds. These funds accounted for 18 per cent of total IF shares in issue in Ireland in September 2009, with mixed funds accounting for the largest proportion. Assets under management of other funds were largely shares and other equity, including IF and MMF shares/units, amounting to €41.1 billion in September 2009. Other funds have a higher proportion of non-financial assets on their balance sheets as real estate funds primarily invest in properties and land. On the liabilities side, the value of shares in issue fell since the start of 2009, from €77.2 billion in the first

quarter, to €71.1 billion in the third quarter. Some of this reflects an outflow by investors into different fund types, particularly during the second quarter of 2009.

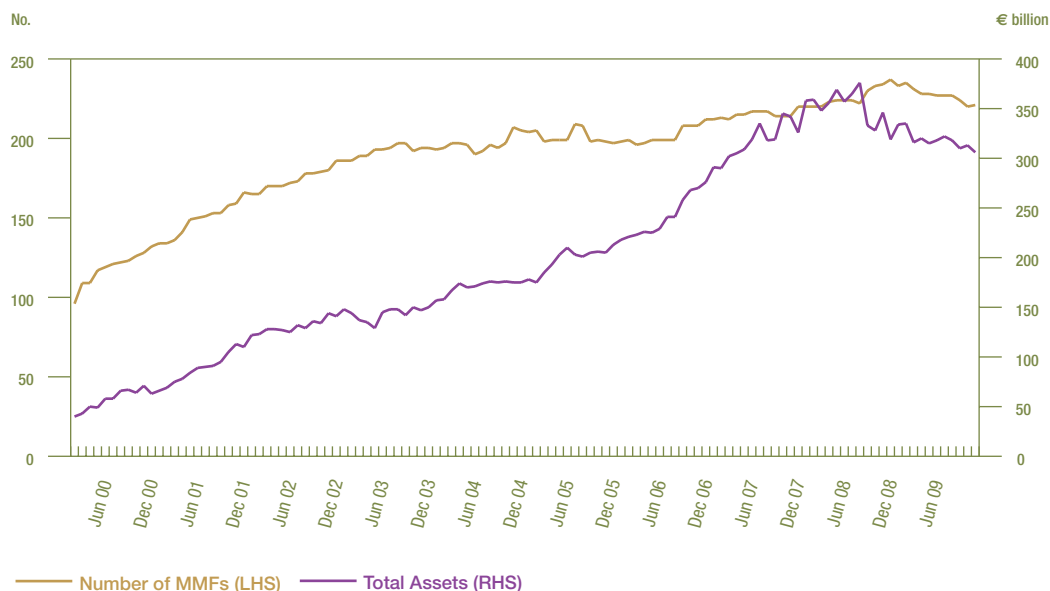
#### 5.5 Money Market Funds

The primary focus of this article is the new data series on investment funds, which do not include MMFs. However, MMFs are another important component of the MFI statistics and the financial sector, and the presentation of these data in this article provides a comprehensive overview of the investment funds industry in Ireland. The availability of separate data on MMFs, therefore, enhances monetary analysis and provides a better overview of the funds industry as a whole. The ECB defines a MMF as an entity whose business it is to receive deposits and/or close substitutes to deposits from entities other than MFIs and for their own account to grant credit and/or invest in securities. MMFs primarily invest in money market instruments, MMF shares/units, other transferable debt instruments with short maturities, and bank deposits, or pursue a rate of return that approaches the interest rates of money market instruments.

Table 6: Other Funds — Amounts Outstanding and Transactions

€ million	Q4 2008		Q1 2009		Q2 2009		Q3 2009	
	Stock	Stock	Flow	Stock	Flow	Stock	Flow	
<b>Assets</b>								
Deposits and loan claims	3,130	5,670	2,254	4,856	-1,297	5,480	844	
Securities other than shares	9,056	11,617	3,069	18,389	5,932	19,728	1,484	
Issued by euro area residents	2,749	3,999	1,389	3,599	-610	4,695	1,347	
Issued by non-euro area residents	6,307	7,618	1,680	14,789	6,543	15,033	136	
Shares and other equity	27,917	34,512	6,975	21,320	-15,743	25,076	1,898	
Issued by euro area residents	7,434	9,233	2,328	6,450	-3,546	8,837	1,965	
Issued by non-euro area residents	20,483	25,279	4,647	14,870	-12,198	16,239	-67	
Investment fund shares/units (incl. MMF shares)	30,317	22,784	-6,595	15,638	-7,830	16,113	273	
Issued by euro area residents	15,771	12,916	-2,183	9,113	-4,550	9,531	234	
Issued by non-euro area residents	14,546	9,868	-4,412	6,525	-3,279	6,582	39	
Non-financial assets	3,273	2,624	-511	6,033	3,574	5,180	-635	
Other assets	8,163	4,752	-2,982	5,334	-323	4,543	-1,212	
<b>Liabilities</b>								
Investment fund shares/units	74,994	77,246	4,053	67,070	-14,741	71,142	2,717	
Loans and deposits received	1,262	405	-863	300	-107	372	27	
Other liabilities	5,601	4,308	-980	4,199	-839	4,608	-92	
<b>Total Assets/Liabilities</b>	<b>81,857</b>	<b>81,960</b>	<b>2,210</b>	<b>71,570</b>	<b>-15,687</b>	<b>76,122</b>	<b>2,651</b>	

Chart 8: Number and Total Assets of MMFs Resident in Ireland



Source: Central Bank of Ireland.

Table 7: Balance Sheet of Money Market Funds

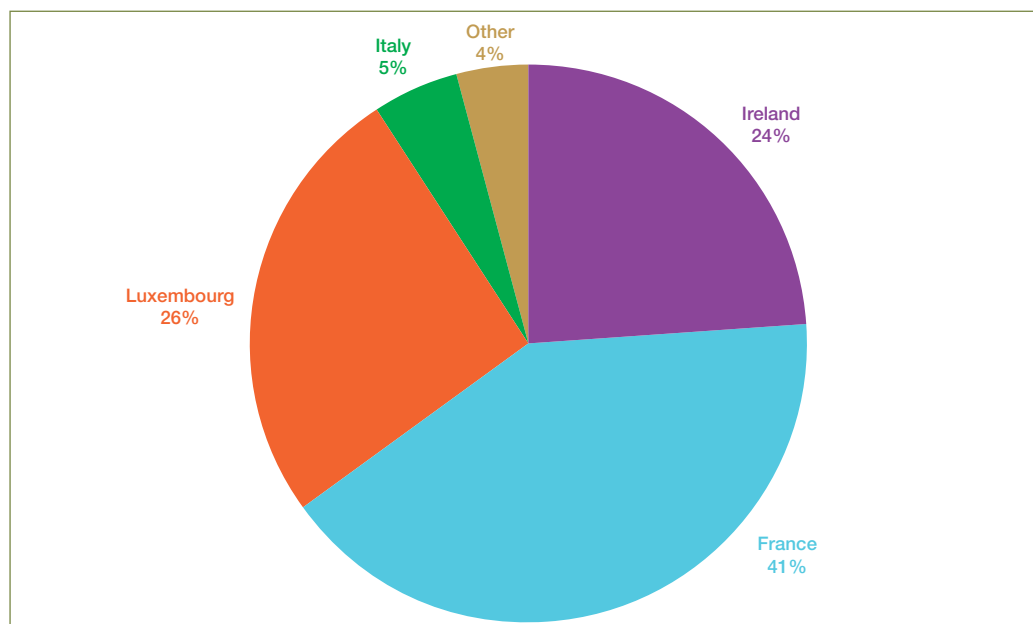
€ million	Dec. 2003	Dec. 2004	Dec. 2005	Dec. 2006	Dec. 2007	Dec. 2008	Sep. 2009
<b>Assets</b>							
Deposits and loan claims	7,016	8,486	13,843	21,342	51,663	51,182	28,363
Securities other than shares	141,242	165,592	197,441	252,714	272,124	265,017	280,166
Issued by euro area residents	30,804	30,936	39,259	40,192	52,470	59,962	78,874
Issued by non-euro area residents	110,438	134,656	158,182	212,521	219,653	205,055	201,292
Shares and other equity	173	25	20	18	15	11	7
MMF shares/units	449	979	874	830	950	839	816
Other assets	1,248	400	711	1,169	1,419	2,290	499
<b>Liabilities</b>							
MMF shares/units	148,304	174,105	210,969	274,157	323,207	316,917	305,993
Other liabilities	1,824	1,377	1,920	1,915	2,963	2,423	3,858
<b>Total Assets/Liabilities</b>	<b>150,128</b>	<b>175,482</b>	<b>212,889</b>	<b>276,072</b>	<b>326,170</b>	<b>319,340</b>	<b>309,851</b>

Money market fund shares/units are included in the measure of M3 (the broad money supply measure) as their units are close substitutes for deposits. Ireland had over 220 MMFs in September 2009; this had increased from just under 100 at the start of 2000 (Chart 8). The total assets of MMFs increased substantially since the start of this century, and expanded very rapidly, to €310 billion in September 2009. Total MMF shares/units in issue in the euro area in September 2009 was €1.3 trillion; Ireland accounted for 24 per cent of this. France and Luxembourg accounted for a further 67 per cent of shares in issue (Chart 9).

Chart 10 shows that the structure of Irish MMFs' balance sheets has remained relatively stable over the last few years. The liabilities side of the balance sheet comprise mainly MMF shares/units in issue. Table 7 shows a substantial rise in MMF shares/units between 2006 and 2007. There were sizeable redemptions during the worst of the financial turmoil, particularly in September 2008. This reflected investors' concerns regarding the safety of some funds in the context of intensifying financial tensions during September 2008 (ECB, 2008)<sup>13</sup>.

<sup>13</sup> ECB, (2008), 'Monthly Bulletin November', ECB, November.

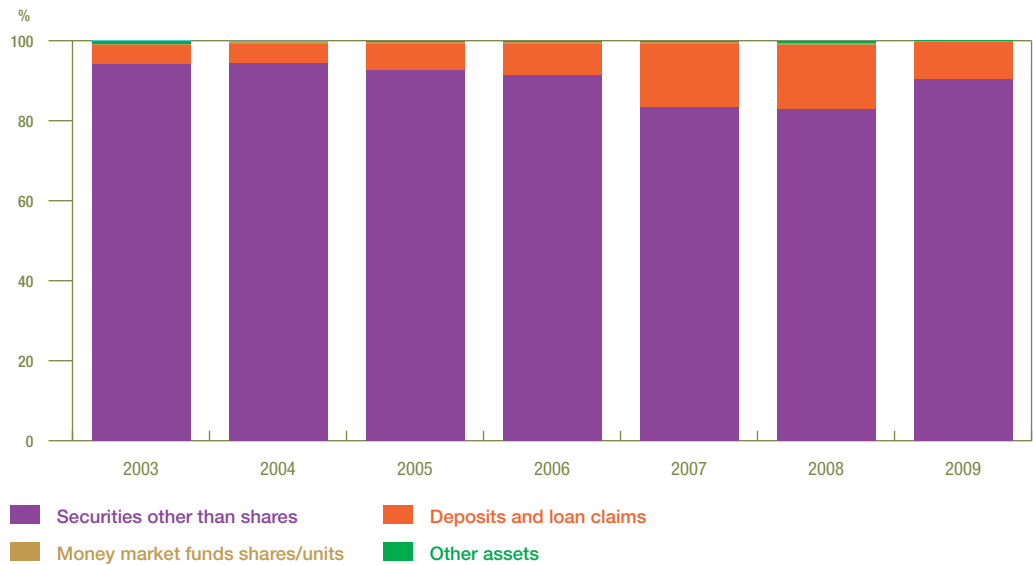
Chart 9: Country Shares of Euro Area MMFs Shares/Units Issued, September 2009



Source: European Central Bank.



Chart 10: Proportionate Breakdown of MMF Balance Sheet by Asset Type



Source: Central Bank of Ireland.

On the assets side, over the time period under analysis, the largest assets held by MMFs were short-term securities other than shares, in particular those issued by non-euro area residents. Deposits and loan claims increased as a proportion of MMFs' balance sheets during 2007 and 2008, and as a consequence, securities other than shares fell to below 90 per cent. This most likely reflected a desire by the funds to remove some of their assets from riskier categories like corporate bonds, short-term paper, and complex short-term structured securities, etc. This trend may also reflect the fact that during the worst of the financial crisis, there were severe liquidity restrictions, and very few new investment opportunities in securities. Towards the end of the third quarter of 2009, however, the proportion of MMF assets held in deposits reduced again, to just over 9 per cent.

Money market funds are generally seen as safe havens for investors, however, during the financial turmoil there was uncertainty over their exposure to riskier sub-prime bonds, and the value of their shares fell. A prime example of this was MMFs in the US during September 2008. After the fall of Lehman Brothers, one of the oldest and largest MMFs in the US 'broke the buck', where the value of its shares went

below US\$1, due to some of their assets being notes issued by Lehman Brothers. This was unprecedented. Following this, there was a run on some US MMFs, as investors sold off their shares. As a result, the US Federal Government and the US Department of the Treasury had to take action to restore the confidence in these funds and MMFs were given a 12-month guarantee in September 2008 (Baba, McCauley and Ramaswamy, 2009)<sup>14</sup>. MMFs, or mutual funds, are popular in the US, as an alternative investment to deposits. It should be noted that the definition of MMFs provided by the ECB covers a wider range of entities than the constant NAV funds guaranteed by the US authorities.

## 6. Conclusion

The availability of comprehensive statistics on investment funds makes a significant contribution to filling the data gaps for the OFI sector. This will be further enhanced with the advent of statistics on FVCs later in 2010. The new dataset on investment funds will become more useful for analytical purposes over time, as a longer time series is developed.

<sup>14</sup> Baba, N, R. McCauley and S. Ramaswamy, (2009), 'US Dollar Money Market Funds and Non-US Banks', BIS Quarterly Review, March.

Nevertheless, the data provide crucial information on the role of funds within financial intermediation, and on portfolio shifts, especially between monetary and non-monetary assets. The separate availability of money market fund data enhances the possibilities for monetary analysis, given their inclusion in the MFI sector, and the inclusion of their shares within M3.

The data will also make a significant contribution to tracking the development of the funds industry in Ireland. In Budget 2010, the

Minister of Finance announced that he will 'bring forward measures to strengthen Ireland's competitive edge in this important sector'. The Irish Funds Industry Association (IFIA) welcomed this announcement, and said that it will help Ireland remain competitive as a funds centre in the future.<sup>15</sup> The data series will be extremely beneficial in assessing the developments of each fund type, in particular hedge funds, and in monitoring investment strategies adopted.

<sup>15</sup> 'Finance Bill Tax Changes Set to Help Ireland Become EU Funds Centre', Irish Times, 2 January 2010.

# Measuring Ireland's Price and Labour Cost Competitiveness

by Derry O'Brien<sup>1</sup>

## Abstract

This article describes recent trends in the price and labour cost aspects of Ireland's competitiveness. The competitiveness of the Irish economy is especially important given the economy's dependence on international trade and foreign direct investment. The Central Bank's competitiveness indicators, including new indicators on labour cost competitiveness, are explained and their respective merits are discussed. According to a range of the Bank's economy-wide competitiveness indicators, the Irish economy has experienced substantial losses in price and labour cost competitiveness during the past decade. In the early part of this decade, the appreciation in the real exchange rate could be explained by the unsustainability of a 'super-competitive' starting point. Further into the decade, the strong personal consumption growth and the housing construction boom may have temporarily counter-balanced the consequences of the significant deterioration in competitiveness on the economy's growth rate. Recent prices and labour costs in levels are also described relative to those of important trading partners. The downwards adjustment of prices and labour costs last year should provide a timely boost for export competitiveness, made all the more necessary by the sharp depreciation of sterling against the euro during the past two years. The competitiveness gap looks set to close further during this year, although much will depend on the projected rebound in productivity growth and labour market developments.

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## 1. Introduction

Competitiveness indicators are not universally endorsed. This can be partly attributed to their weak conceptual basis while the vast array of definitions of competitiveness can sometimes lead to confusion as to the purpose and relevance of competitiveness indicators. Definitions of competitiveness with a longer term perspective incorporate notions of relative productivity whereas narrower definitions of competitiveness may correspond to real effective exchange rates or price and labour cost competitiveness indicators. The latter tend to be used in the context of conjunctural assessments and short-term forecasting exercises but the relationship between these indicators and economic performance is not without ambiguity. Indeed, an appreciation in a real effective exchange rate may not necessarily imply that the ability of a country to compete internationally has been compromised but may reflect positive developments in non-price dimensions or a convergence process. In this respect, it is important to acknowledge that an assessment of the overall international competitiveness position can be quite complex and the use of real effective exchange rates or price and labour cost competitiveness indicators should only form one element of the analysis.

The competitiveness of Ireland is especially important given the economy's dependence on international trade and foreign direct investment. Among euro area countries, Ireland is particularly vulnerable as it has the largest share of trade outside the euro area such that fluctuations in the euro exchange rate have a disproportionate impact on the volatility in the Irish real exchange rate. With devaluation no longer an option, greater emphasis is placed on price and wage adjustments to generate improvements in competitiveness. Monitoring developments in indicators of price and labour cost competitiveness can however be quite challenging as the idiosyncrasies of the Irish economy tend to distort these indicators. Taken together, Irish competitiveness measures can sometimes present a diverse picture and make it difficult to discern developments in the overall

competitiveness position. With no optimal indicator emerging on purely conceptual grounds, an appreciation of the merits and drawbacks of these indicators in an Irish context and their suitability for the issue in question is important. This article presents a detailed assessment of the price and labour cost competitiveness indicators developed by the Bank in order to enhance the understanding and uses of these indicators. Notwithstanding some strong caveats, these indicators can convey useful information on the state of the economy. The trends in the indicators are evaluated and the culmination of these trends is examined using recent deflator levels data. According to a range of economy-wide indicators, the Irish economy has experienced significant losses in price and labour cost competitiveness. In the context of subdued world demand and the prospect of a muted recovery in important trading partners, regaining price and labour competitiveness needs to be a key priority in order to sustain an export-led recovery in the economy.

The article is structured as follows. Section 2 recalls definitions of competitiveness arriving at a narrow definition of competitiveness corresponding to real effective exchange rates. The section then elaborates on how these price and cost competitiveness indicators are generally used. Section 3 explains how the Bank's competitiveness indicators for the Irish economy are constructed and their respective shortcomings. New indicators of price and labour cost competitiveness are also explained with the article intended as a comprehensive guide to these competitiveness indicators, which are available on the Bank's website. The trends in these indicators since the mid-1990s are reviewed in Section 4. These indicators only give the relative trends in competitiveness with reference to an arbitrarily chosen base year and do not describe the competitiveness position relative to trading partners at any given point in time. In order to address this, the latest price and cost competitiveness position is illustrated in Section 5 by examining the components of the competitiveness indicators.

The final section then summarises the findings and indicates avenues for further research.

## 1. A Narrow Definition of Competitiveness

The concept of national competitiveness has been subject to some strong criticism. In a provocative assault, Krugman (2004) stated that “competitiveness is a meaningless word when applied to national economies. And the obsession with competitiveness is both wrong and dangerous”. However, the arguments presented against the practical relevance of national competitiveness relate in the main to large economies such as the US and Japan. Krugman is more qualified further on and noted that “while competitive problems could arise in principle, as a practical empirical matter the major nations of the world are not to any significant degree in economic competition with each other”. In the case of small open economies such as Ireland, international competitiveness is relevant and important, particularly in the context of Ireland striving to maintain its attractiveness as a destination for foreign direct investment. Still, it is important to clarify what is meant precisely by the concept of national competitiveness.

There are many definitions of national competitiveness with the broader definitions generally adopting a longer term view where productivity performance is what matters in terms of setting the sustainable standard of living of a country. The ECB's broad definition of competitiveness includes a notion of relative productivity where the most competitive economy is the one with the best prospects for generating highly productive firms. In a similar vein, the Global Competitiveness Report defines competitiveness as “the set of institutions, policies and factors that determine the level of productivity of a country”. With a narrower focus on certain aspects of competitiveness, Lane (2004) defines “price and wage competitiveness to be a state in which medium-term full employment is achieved and the return on capital matches the global risk-adjusted cost of capital”. Other definitions tend to put explicit emphasis on trade performance giving rise to a sustainable and improving standard of living. For example,

the National Competitiveness Council (NCC) defines competitiveness as all those factors affecting the ability of Irish firms to sell goods and services in international markets. Finally, the ECB also defines competitiveness, but in a narrower sense, to be international price competitiveness as measured by various measures of effective exchange rates. Such price measures tend to have much intuitive appeal although their conceptual foundations can be weak. Ultimately, as emphasised by Neary (2006), the appropriate measure of competitiveness depends on the question that needs to be answered.

If the purpose of the analysis is more related to the short to medium term such as in a conjunctural analysis or a forecasting exercise, then price and cost competitiveness indicators can have a role to play. Indeed, Ca'Zorzi *et al.* (2007) show that price and cost competitiveness indicators can be useful for predicting trade flows as the pressures on firms' performance via relative trends in input prices or costs may influence short-term developments in export flows or trade balances. A fall in domestic prices relative to prices in our main trading partners will enhance the price competitiveness of domestic firms. Similarly, a relatively low cost base, adjusted for productivity, makes firms based in Ireland more competitive in international markets and more robust to volatility in exchange rates. It also makes Ireland more attractive as an export base for multinational firms. As a result, firms based in Ireland may be better positioned to capture a greater share of the domestic and trading partners' markets. Price and cost competitiveness indicators may also signal emerging imbalances and vulnerabilities of an economy, which may enable more timely policy adjustments. Monitoring relative price and cost developments is of heightened importance in a currency union. As devaluation is no longer an option, there is greater emphasis for price and wage adjustments to generate improvements in competitiveness.

The movements in price and cost competitiveness indicators are monitored closely but there is not always clarity as to what these movements reflect and what the

implications are. Indeed, there is no one real exchange rate that answers all questions and it can be quite challenging for policymakers and forecasters when the various indicators do not present a uniform picture. Aside from the timeliness and data quality criteria, the usefulness of these indicators can sometimes vary according to whether the assessment is focused on (i) economy-wide or sectoral performance; (ii) the short-term prospects for export performance and market shares; (iii) the trade balance and current account; or (iv) employment and welfare implications. The next section will attempt to explain the respective merits and relevance of the Bank's competitiveness indicators in order to illuminate the appropriate indicator depending on the issue in question. Finally, firm level data and wage share data can also provide an alternative view of competitiveness but come with their own limitations and distortions. Price and cost competitiveness indicators are superior in terms of timeliness and data quality, and for these reasons, price and cost competitiveness are commonly used at central banks and international organisations in conjunctural assessments and short-term forecasting.

This paper takes a rather narrow view of competitiveness and the use of price and labour cost competitiveness indicators should only be one element of the analysis. Trade specialisation and market effects can also be important determinants of a country's ability to compete in the short-run. The NCC's Annual Competitiveness Report publishes a comprehensive range of competitiveness indicators including other non-labour cost indicators while Cassidy and O'Brien (2007) also presents a wide-ranging assessment of competitiveness that incorporates non-price indicators relating to structural and technological factors. Price and cost competitiveness indicators are not intended to predict long-run export performance or sustainable growth in living standards — that depends on productivity growth, which in turn can be influenced by structural policies that affect wage flexibility and competition in sheltered sectors.

### 3. Price and Labour Cost Competitiveness Indicators for the Irish Economy

The Central Bank has developed a set of price and cost harmonised competitiveness indicators (HCIs) for the Irish economy as part of a collaborative project between the ECB and the national central banks of the euro area. Some of the indicators will appear for the first time in the current edition of the Bank's Quarterly Bulletin and will be published on the Bank's website. The Bank has also developed some absolute measures for Irish manufacturing competitiveness that adjust for the undue influence on competitiveness indicators of the high output but low employment chemicals sector. The purpose of this section is to explain these competitiveness measures in detail, highlighting the merits of each, in order to provide guidance on what information these measures can provide in an assessment of Ireland's international competitiveness. Some alternative measures of price and cost competitiveness, such as export prices, will also be reviewed.

The HCIs, which are conceptually equivalent to effective exchange rates, track the movements in nominal exchange rates and may also take into account movements in a chosen national deflator relative to the corresponding deflators of a large group of trading partners. Firstly, there are important considerations in the methodology behind these harmonised effective exchange rates, some of which are particularly relevant to the case of Ireland:

- (i) While an effective exchange rate should in theory take into account all trading partners, the set of trading partners is often in practice constrained by data availability and comparability. The significant broadening in Ireland's geographical trade diversification has called for an expansion of the set of trading partners beyond the important traditional trading partners such as the UK, major EU economies and the US. The set of trading partners used for the HCIs is quite large at 37 or 57 trading partners, depending on the deflator chosen;

(ii) The choice of weighting scheme is also important. As is standard practice, the weights for the HCIs are based on bilateral manufacturing trade flows (excluding agriculture, raw material and energy products). While services exports in Ireland have grown considerably this decade and accounted for about 46.3 per cent of total exports from Ireland in 2008, there are data constraints with services transactions and prices which would not allow the weights to adequately incorporate services trade. A double weighting scheme is used for the HCIs in order to capture the effect of competition in third markets<sup>2</sup>. Note that, in the case of Ireland, while the simple export weight for the UK was about 14 per cent on average during 2004 to 2006, the double weighting for the UK was about 18.3 per cent for the same period, reflecting the fact that the UK is an important competitor for Irish firms supplying the domestic market and for Irish exporters in international markets. The weights for the HCIs are based on trade flows from 1995-1997, 1998-2000, 2001-2003 and 2004-2006.

(iii) The base period chosen for HCIs is the beginning of 1999, which corresponds to the year of the introduction of the euro. It is important to note though that the choice of 1999 as the base year is arbitrary and does not reflect any sense of an 'equilibrium' reference value. The Irish economy was considered to be super-competitive during the end of the 1990s. In view of this, it could be argued that the selection of this base period puts Ireland in an exaggeratedly poor light in an assessment based purely on relative price and cost dynamics. Indeed, a portion of the subsequent increase in relative prices and costs could be conceived as reflecting an appropriate adjustment towards a more sustainable long-run output and employment growth rate i.e.

characterised by a 'catching-up' process.

The individual HCIs, along with their respective merits, are now explained in turn. The *Nominal HCI*, which is a double-weighted average of bilateral exchange rates with trading partners, isolates the impact of exchange rate developments on competitiveness and can be interpreted as a nominal effective exchange rate. The nominal HCI for Ireland, with  $N=57$  main trading partners, is calculated as follows

$$\text{nominal HCI} = \prod_{i=1}^N (e_i)^{w_i}$$

Or, alternatively expressed as

$$\% \text{change in nominal HCI} = \sum_{i=1}^N (w_i * \% \text{change in } e_i)$$

where  $e_i$  is the nominal exchange rate of currency of country  $i$  vis-à-vis the euro (with domestic currency as the numeraire) and  $w_i$  is the trade weight of country  $i$ . A higher  $e_i$ , meaning a depreciation of the currency of trading partner  $i$  against the euro, implies, *ceteris paribus*, a higher nominal HCI and a deterioration in competitiveness. If the weight of the trading partner is relatively large, such as in the case of the UK, then this will be reflected in a proportionately large increase in the HCI. The nominal HCI for Ireland is published at a monthly frequency by the Bank and the ECB.

The *Real HCIs* take into account price or cost movements, along with exchange rate developments, relative to our main trading partners, and can be interpreted as real effective exchange rates. The real HCIs for Ireland are calculated as follows

$$\text{real HCI} = \prod_{i=1}^N \left( \frac{d_{IRL}}{d_i} e_i \right)^{w_i}$$

where  $e_i$  is again the nominal exchange rate of the currency of country  $i$  vis-à-vis the euro,  $d_{IRL}$  is the price or cost deflator index for Ireland,  $d_i$  is the corresponding price or cost deflator index for country  $i$ ,  $w_i$  is the trade weight of country  $i$ , and  $N$  is equal to either 37 or 57 main trading partners depending on the

<sup>2</sup> For a description of how double weights are calculated, see Kelly and Golden (2001), 'Trade Weighted Competitiveness Indicators for Ireland', Quarterly Bulletin, Winter 2001.

deflator chosen. Alternatively, the above could be reformulated as

$$\begin{aligned} \%change\ in\ real\ HCI &= \sum_{i=1}^N w_i (\%change\ in\ d_{IRL} - \%change\ in\ d_i) \\ &+ \%change\ in\ nominal\ HCI \end{aligned}$$

Thus, a larger percentage increase in the Irish deflator index compared with the corresponding deflator of a trading partner will give, *ceteris paribus*, an increase in the real HCI and implies a deterioration in Ireland's price competitiveness. The deflators used are consumer prices, producer prices, unit labour costs for the whole economy and unit labour costs for the manufacturing sector, and four of these real HCIs are published at a monthly or quarterly frequency by the Bank and the ECB<sup>3</sup>.

The *consumer price deflated HCI* is a commonly used real HCI. Such a price deflated measure will convey information on how firms change prices to maintain domestic and foreign market shares in response to nominal exchange rate changes. However, choosing consumer prices as the deflator may give an incomplete picture of price competitiveness for a number of reasons: (i) given that consumer prices are based on final prices, they do not directly take into account intermediate goods prices, which are quite relevant in the context of the increasing international segmentation of production processes; (ii) the prices of capital goods are not included, which can also influence competitiveness considerations; (iii) indirect taxes and price controls in consumer prices may give rise to a distorted picture of true underlying cost competitiveness; and (iv) finally, it can be argued that since consumer prices include a large number of non-traded goods and services, it does not provide a very good indication of international competitiveness. Notwithstanding these limitations, the consumer price deflated HCI can provide a useful and timely first approximation to underlying cost competitiveness changes given that many

inputs into production, including labour, may tend to be priced in line with consumer prices.

An alternative would be to use *relative export prices* for manufacturing goods since they cover only internationally traded products. While a deflator based on export prices has intuitive appeal, export prices suffer from other drawbacks, which are particularly relevant for Ireland. As a small open economy, Irish export prices are generally set in international markets and, effectively, "given" for Irish exporters. Over the short to medium term, therefore, export prices may not be sensitive to domestic cost factors. Moreover, given that multinational firms in Ireland tend to price their exports in dollars including those exports destined for the euro area, volatility in the euro/dollar exchange rate can be the principal driver of short-run export euro price movements. The exports of multinationals in Ireland can often have high import content and these imports also tend to be priced in dollars, such that a rise in the dollar euro exchange rate can be more easily absorbed. Changes in competitiveness manifest themselves through changes in profitability (export prices less the cost of producing exports) rather than changes in prices. Finally, export price based competitiveness indicators also suffer from longer release lags, revisions, lack of comparability and, when measured using export unit values, are not robust to significant shifts in the composition of exports. Partly for these reasons, the ratio of domestically produced export prices to foreign produced import prices, or the external terms of trade, is also not considered a reliable indicator of competitiveness trends.

While export prices take into account only prices for those goods that were actually traded, producer prices cover a broader range of industrial goods. By encompassing non-traded industrial goods, the *producer price*

<sup>3</sup> The unit labour cost deflated HCI for the manufacturing sector will not be published until certain data issues are resolved. In the meantime, the Bank will continue to publish a relative unit labour cost based common currency measure for the manufacturing sector using simple trade weights for the 10 most important trading partners.



*deflated HCI* takes into account goods that could potentially be traded if the relative price were to become more favourable, thus giving a more accurate reflection of the economy-wide implications of developments in competitiveness. However, on the debit side, producer prices do not have nearly the same degree of comparability across countries as consumer prices and more importantly do not include services prices. Furthermore, the producer prices are based on gross value of output (i.e. also reflect prices of inputs such as imported goods along with non-traded goods) and in the highly specialised Irish economy, a high proportion of intermediate inputs are imports. This may explain why the impact of nominal effective exchange rate changes on price competitiveness can sometimes be quite muted.

While the economy's price competitiveness position relates to the ability of firms based in Ireland to sell goods or services at a lower price than firms in competitor countries, the economy's cost competitiveness position relates to the ability of firms here to produce goods and services at a lower cost than firms based abroad. Given that firms in Ireland are generally price takers, cost competitiveness developments have important implications for the profitability and viability of firms in the exporting sector. While over the shorter term firms may respond to nominal effective changes by lowering prices, this may be at the expense of a significant and prolonged squeeze on profits unless over time offsetting adjustments can be made to the cost base. In this sense, cost competitiveness indicators generally give a more accurate reflection of the underlying competitiveness pressures.

The largest costs incurred by firms are typically labour costs and the labour cost of producing one unit of value added may be calculated as follows

$$\text{Unit labour cost} = \frac{\frac{\text{Compensation of employees}}{\text{Number of employees}}}{\frac{\text{Value added}}{\text{Employment}}}$$

Compensation costs comprise pay, employers' social security contributions and other labour

taxes. The compensation level is a more relevant measure in an assessment of international labour costs than wage levels alone as employers' social security contributions can make up a significant proportion of total labour costs, and these contributions as a percentage of overall compensation can vary significantly across countries. Broader definitions of employer labour costs could take account of the cost of recruitment, employee-training, and on-site services such as cafeterias etc, but these items generally only account for a relatively small proportion (less than 5 per cent) of overall labour costs. The number of hours worked can vary considerably across countries due to factors such as differences in the proportion of part-time workers, average working week for full-time workers, minimum statutory annual leave and total numbers of national holidays across countries. Compensation per hour levels rather than compensation per worker levels may offer more informative comparative measures of international labour costs. However, there are stronger data limitations associated with constructed per hour basis series and for this reason, the series underlying the unit labour costs deflated HCIs are constructed using a per employee or worker basis.

Relative unit labour cost measures for the predominantly internationally traded Irish manufacturing, expressed in common currency, provide a useful assessment of cost competitiveness *vis-à-vis* our main trading partners, and such a measure is published by the Bank but is not based on the HCI methodology. A *unit labour cost deflated HCI for the manufacturing sector* is produced but is not published regularly as yet. Two of the difficulties relating to this measure are that competitiveness gains may be overstated due to capital labour substitution within sectors or by shifts in sectoral composition to sectors with lower labour shares. Developments in the chemicals sector, in particular, have tended to drive up measures of productivity growth and push down unit wage costs to such an extent as to reduce the relevance of output-weighted measures given the relatively small weight of the chemicals sector in manufacturing

employment. In order to overcome this drawback, alternative absolute and relative measures attempt to limit the influence of the chemicals sector by (i) excluding it altogether; (ii) weighting by wage shares; or (iii) weighting by employment shares to give a more direct link to fundamental concern with employment risks. Measures (i) and (ii) are published in the Bank's Quarterly Bulletin, along with a series on average wage rates in manufacturing relative to those in 10 major trading partners. The latter series have some appeal as the potentially large distortions introduced by productivity adjustments in the case of unit labour cost based measures are avoided.

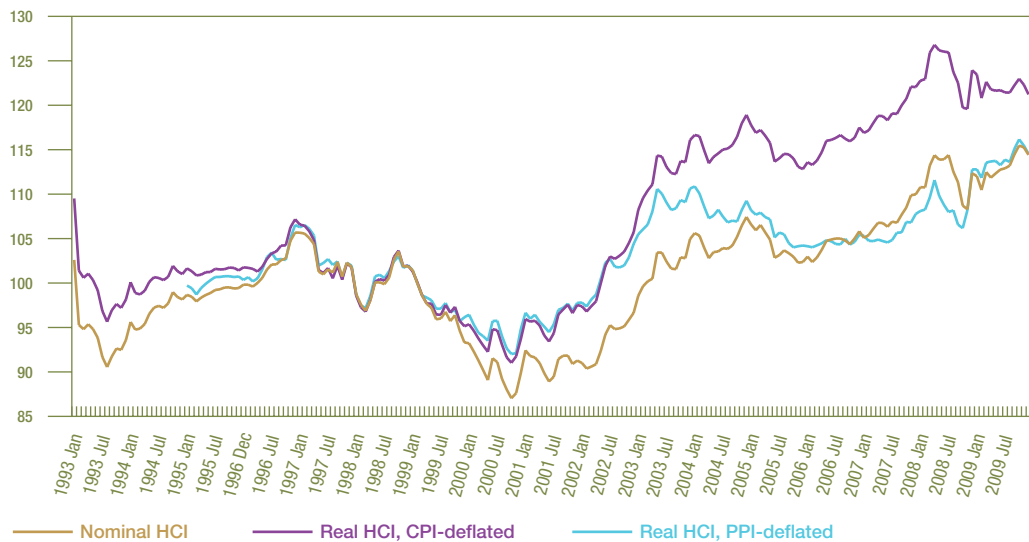
The services sector has often been neglected in analyses of competitiveness, owing largely to data constraints and also the perception that services are non-traded. However, with the expansion of financial and IT related services as well as tourism, services are growing in importance in the overall tradable sector. Even non-traded services are often an input in the production process of the traded sector and hence are an important factor in export competitiveness. For this reason, a *unit labour cost deflated HCI for the whole economy* should also form part of the analysis. The issue of extremely high value added and overstated productivity in the multinational sector remains, and, as a result, economy-wide relative unit wage costs using GNP-based measures of productivity are preferable to GDP-based measures. It is perhaps worth mentioning that although GNP may largely abstract from factor incomes of multinational firms, the GNP-based measure may still be distorted by developments in net interest payments on government debt. Finally, in order to more closely approximate the total cost of production, value added deflators are also used to proxy for relative costs and the broadest measure of cost competitiveness is the *GDP-deflated HCI*. This measure can suffer from distortions due to taxes and subsidies, may not be fully comparable across countries and may be too heavily weighted on non-tradable goods and services.

In conclusion, there are a number of important considerations concerning the usefulness and

appropriateness of the price and labour cost competitiveness indicators:

- There is no single ideal measure of price or labour cost competitiveness as each indicator is subject to different caveats. In view of this, conjunctural assessments of price and cost competitiveness developments should only be reached on the basis of an analysis of a broad set of measures and should be cognisant of the limitations inherent in each measure;
- While the price deflated HCIs give timely indications of the direction the economy is taking in terms of competitiveness and can isolate important factors affecting competitiveness, labour cost measures can be more informative about medium run competitiveness developments but are only available at a substantial lag. In this respect, the preferences for different indicators may tend to be partly influenced by the horizon of the analysis and the timeliness of the data;
- An assessment based on a combination of indicators can be informative. For example, an increase in the ULC-deflated HCI for the whole Irish economy relative to the ULC-deflated HCI for the mainly internationally traded manufacturing sector may indicate heightened inflationary pressures in the sheltered sectors of the economy;
- Certain competitiveness indicators may not be suitable depending on the purpose of the analysis. For example, it may be argued that the ULC-deflated HCI for the Irish manufacturing sector is overly influenced by the high-output but relatively low employment chemicals sector. Consequently, developments in the ULC-deflated HCI may have a tenuous link with employment and welfare consequences. In this regard, competitiveness measures that adjust for this undue influence may be more appropriate for the Irish manufacturing sector; and

Chart 1: Monthly Harmonised Competitiveness Indicators for the Irish Economy, 1999 Q1=100



- Finally, as mentioned earlier, the usefulness of these indicators can depend on whether the assessment is focused on (i) economy-wide or sectoral performance; (ii) the short-term prospects for export performance and market shares; (iii) the trade balance and current account; or (iv) employment and welfare implications. It is outside the scope of this paper to assess econometrically the performance of these indicators in short-term forecasting exercises but further research will perform these tests and develop more sector specific competitiveness indicators.

#### 4. Trends in Ireland's Price and Labour Cost Competitiveness

The appreciation of Ireland's nominal effective exchange rate since the introduction of the euro was quite significant, at close to 17 per cent (see Chart 1). Given that a disproportionately high share of Ireland's exports are destined for non-euro area countries (just over 60 per cent in 2008), the euro exchange rate appreciation weighed more heavily on the economy's price competitiveness relative to all other euro area countries. The consumer price deflated HCI indicates an

additional 9.2 percentage points deterioration in competitiveness due to relative price developments, the largest deterioration among all euro area countries. While trends in the PPI-deflated HCI and the nominal HCI have diverged during the past decade, relative producer prices on a common currency basis were comparable in recent years to the corresponding relative prices at the introduction of the euro. This would suggest that the deterioration in manufacturing price competitiveness was due, almost exclusively, to exchange rate movements. The culmination of all of these developments, in terms of the current competitiveness position, will be examined in the next section while the short-term competitiveness outlook is discussed in the Domestic Economy Chapter of the Quarterly Bulletin.

Turning to labour cost competitiveness, developments in manufacturing and the total economy have been markedly different over the past decade (see Chart 2). Indeed, the period since the mid-1990s can be decomposed into three distinctive phases in terms of the evolution in competitiveness (see Table 1). During the mid- to late 1990s, competitiveness improvements in manufacturing were quite dramatic but these improvements were not reflected in the whole economy where gains in

Table 1: Quarterly HCI, annual average percentage increases

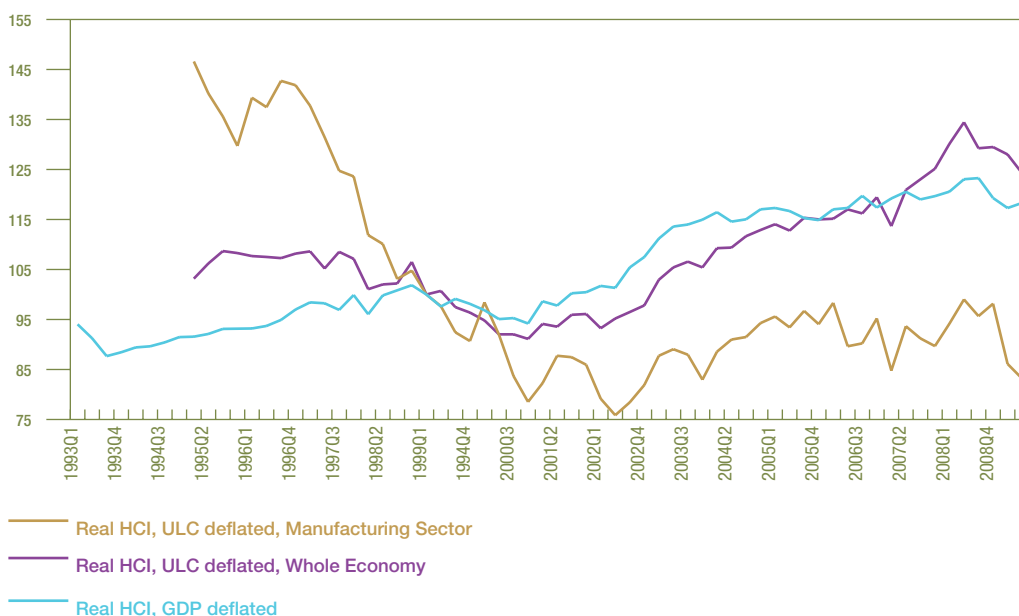
	HCI GDP deflated	HCI ULC deflated Manufacturing	HCI ULC deflated Total Economy (GDP-based)	HCI ULC deflated Total Economy (GNP-based*)
	%	%	%	%
1996-1998	2.5	-7.7	-1.1	-0.7
1999-2003	2.7	-3.9	0.6	1.2
2004-2008	1.4	2.3	4.5	4.4

\*GNP-based ULC for Ireland and GDP-based for trading partners.

competitiveness were on a much more modest scale. Within manufacturing, the chemicals and ICT sectors were the main driving forces behind strong productivity improvements in the modern sector, with this sector significantly outperforming the more traditional sectors. Due to a combination of modest wage increases and strong productivity gains during the mid- to late 1990s, the Irish economy was generally considered to have been “super-competitive” at the beginning of this decade. During 1999 to about 2003, however, trends in cost competitiveness altered such that the competitiveness levels in the manufacturing sector continued to improve, albeit at a more moderate pace, but the total economy began to experience a modest deterioration in competitiveness. Thereafter, the broader economy recorded significant declines in competitiveness.

It is worth considering the driving factors behind the movements in the HCIs during the two most recent phases. It is possible that the unfavourable dynamics in competitiveness since 1999 may reflect to some extent relatively lower initial price or cost levels or relatively high cumulative income increases. However, the ‘super-competitive’ starting point factor and the ‘catching-up’ or convergence effect are likely to have run their course during the early part of this decade. Focusing on a euro area comparison allows abstracting from the sometimes volatile exchange rate movements and can help to isolate the impact of compensation and productivity trends. As can clearly be observed from Table 2, compensation growth in Ireland remained persistently high relative to that in the euro area after 2003 (in fact, the differential widened by

Chart 2: Harmonised Competitiveness Indicators for the Irish Economy, 1999 Q1 = 100



— Real HCI, ULC deflated, Manufacturing Sector  
 — Real HCI, ULC deflated, Whole Economy  
 — Real HCI, GDP deflated

**Table 2: Compensation per employee increases and value added per worker growth, differentials between Ireland and euro area (12 country composition)**

	Total Economy		Industry***	
	1999-2003	2004-2008	1999-2003	2004-2008
Compensation per employee increases	3.8	2.5	3.1	2.6
Productivity growth*	3.1	-0.1	6.4	3.2
Unit labour cost growth**	0.1	2.7	-3.1	-0.5

\*Total economy productivity is GNP-based for Ireland; \*\*Unit labour cost growth can serve as a rough proxy for intra euro area ULC-deflated HCl; \*\*\*Industry including energy, taken as a proxy for manufacturing. Sources: CB calculations and ECB.

almost 2 percentage points), despite a significant fall-off in productivity growth. In more recent years, the Irish economy showed signs of overheating and the higher cumulative inflation in Ireland compared with the euro area average stemmed partly from positive output gap differentials. Indeed, the composition of growth changed during this decade from export-led to domestic demand driven growth. The strong personal consumption growth and the unsustainable housing construction boom only temporarily counter-balanced the adverse consequences of the significant deterioration in competitiveness on the economy's growth rate.

## 5. Ireland's Current Price and Labour Cost Competitiveness Position

The HCIs can illustrate the relative *trends* in competitiveness with reference to an arbitrarily chosen base year, but do not describe the competitiveness *level* or position relative to trading partners at any given point in time. In this respect, it is also helpful to assess how the price and cost deflators compare in levels.

### Price and Cost Components of HCIs in Levels

The price level in Ireland was much higher than in important trading partners in 2008.

Consumer good prices were the third highest and 14.5 per cent higher than the average in the euro area, while consumer services were the second highest and 28.5 per cent higher than the average. As can be observed from the comparative breakdown of consumer prices in Chart 3, the price levels are particularly high in areas such as housing and utilities (water, electricity and gas), communications, and restaurant and hotels. Prices are also especially high for alcoholic beverages and tobacco but the competitiveness implications of these items are less obvious. Although the gap in consumer prices has narrowed somewhat in the meantime, with annual average HICP inflation in Ireland 2.0 percentage points lower than in the euro area during 2009, the price level remains relatively high<sup>4</sup>. The resulting common currency price ratio in the consumer price deflated HCl level is significantly greater than one, which would indicate that the Irish economy is in a weaker competitiveness position with respect to its main trading partners. Similarly, the price level for total goods and total services, and the price level for all goods and services, are significantly higher than in main trading partners, bar the UK in the case of capital goods.

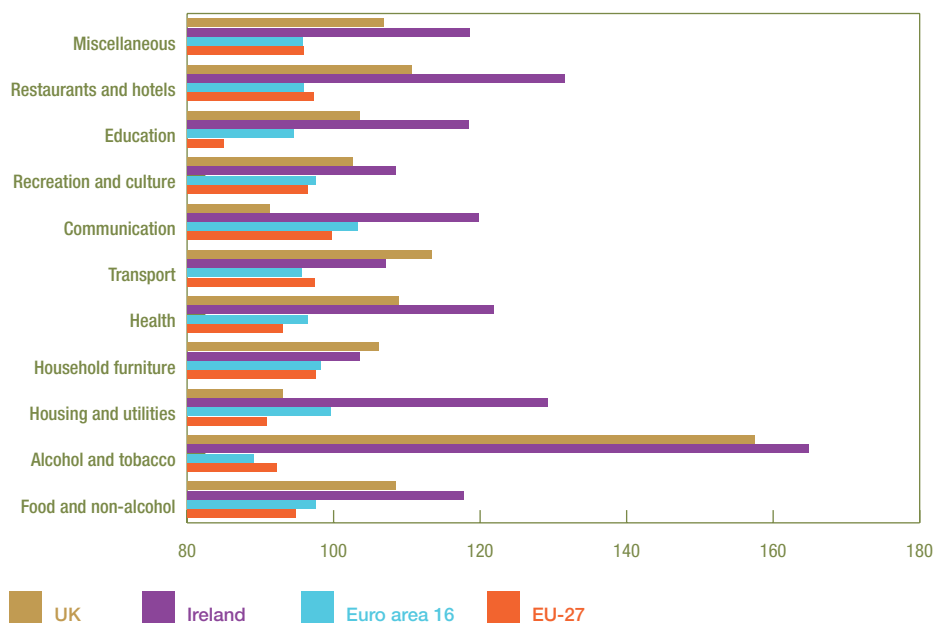
<sup>4</sup> The competitiveness implications of relatively high consumer prices are discussed in detail in Cassidy and O'Brien (2007), "Ireland's Competitiveness Performance", Central Bank Quarterly Bulletin 2007, 2.

**Table 3: Comparative Price Level Indices in 2008, EU15=100**

	Goods			Services		GDP
	Consumer goods prices	Capital goods prices*	Total goods prices*	Consumer services prices	Total services prices*	
Ireland	114.6	104.3	108.5	127.6	120.4	113.9
Euro area	100.1	95.9	96.8	99.3	96.7	99.2
EU27	97.6	97.5	97.3	94.2	92.7	95.4
UK	95.0	117.5	110.3	95.7	104.8	96.2

\*Data for 2007. Source: Eurostat. Note: Total goods include consumer goods that are classified as part of household final consumption expenditure (HFCE), and capital goods belonging to gross fixed capital formation (GFCF). Consumer goods include only goods from HFCE, while capital goods are all classified under GFCF. Total services include services classified under HFCE in addition to government services (individual and collective).

Chart 3: Consumer Goods and Services Component Price Levels, EU15 = 100, 2007



Irish labour costs in levels, on a common currency basis, for the whole economy and manufacturing are presented in an international perspective in Table 4 below. It should be noted that such comparisons come with a number of important caveats. In particular, the compensation levels are not adjusted for differences across countries in age, educational attainment and sectoral composition. In view of this, the following comparisons should be seen as rather crude and treated with caution. Labour costs on a per employee basis across the Irish economy are about 20 per cent higher than the euro area average in 2008. A somewhat different picture emerges for the mainly internationally traded industrial sector. Although compensation per employee was 18 per cent higher than the euro area average, the compensation per hour in Ireland was lower than the corresponding euro area average. This would suggest that

compensation levels in the more sheltered sectors of the Irish economy are likely to be significantly higher than those in the main trading partners.

Comparison of cross-country labour costs have sometimes been presented in purchasing power parity (PPP) terms and it is important to point out that this is not appropriate in an assessment of international labour cost competitiveness. If multinational firms were to make foreign investment decisions purely on a labour cost basis, they would make those decisions on the basis of labour costs in common currency terms and not in PPP terms. Given that Ireland has relatively high price levels, compensating workers for higher local prices would clearly put firms based here at a significant competitive disadvantage compared with firms exporting from countries with lower price levels. In fact, only relatively higher productivity levels could be used to justify

Table 4: Compensation levels in euro in Ireland and trading partners, 2008

	Total Economy		Industry*	
	Per employee	Per hour	Per employee	Per hour
Ireland	45,980	26.63	47,743	22.34
Euro area	35,700	23.61	40,426	25.79

\*Data for 2007. Industry including energy, taken as a proxy for manufacturing for Ireland and Euro area (12 country composition). Sources: CB calculations, EC AMECO, EU KLEMS, OECD Taxing Wages and US Bureau of Labour Statistics.

**Table 5: Productivity levels (value added per worker) in euro, 2008**

	Total Economy	Industry*
Ireland (GDP-based)	70,650	162,470
Ireland (GNP-based)	63,120	—
Euro area	49,670	60,070

\*Data for 2007, Value added in 2000 prices, Euro area (12 country composition), Industry including energy, taken as a proxy for manufacturing. Source: CB calculations, CSO and ECB.

higher labour costs as in this case labour costs per unit produced may be contained, with little impact on the competitiveness position. A study of compensation levels on a PPP-basis is more relevant when assessing living standards i.e. this takes into account what workers can purchase in a given country according to their average compensation level.

Turning to productivity levels, GNP per worker in Ireland is higher than GDP per worker in the euro area (see Table 5). While the aggregate industrial sector appears to remain in a healthy competitiveness position, this largely reflects the performance of a small number of high-technology multinational firms that have very high productivity levels. The latter may be partly attributable to returns to intangible factors such as R&D and marketing activities, which are often undertaken outside Ireland, and so productivity levels in Irish manufacturing are overstated. Unfortunately, only a gross value added series is available and no GNP-type adjustment is feasible. Meanwhile, the competitiveness position of many indigenous firms in more traditional sectors is much less favourable, with the weaker sterling, in particular, weighing heavily on the competitiveness of many of these firms.

Unit labour costs in Ireland were close to the euro area average on a GDP basis in 2008 but, on a GNP basis, unit labour costs are higher

than the euro area (see Table 6). This would indicate that the overall labour cost competitiveness position in Ireland is comparatively weak, even when adjusting for productivity. In contrast, in the industrial sector, the unit labour costs are dramatically lower and are boosted both by the relatively lower labour costs and particularly by the markedly higher productivity levels. However, as above, the relatively low unit labour costs for this sector should be interpreted with caution as they are not broad-based and include significant returns to intangible activities undertaken elsewhere.

HCIs and information on the relative levels of their respective price and cost deflators still cannot reveal whether the real exchange rate is overvalued or not. A model of the long run real exchange rate is necessary in order to properly distinguish relative price changes that represent movements towards an appreciating equilibrium exchange rate from relative price changes due to overheating in the economy. It is important to note that model-based estimates of the equilibrium exchange rate level are surrounded by a high degree of uncertainty. While the findings from a range of approaches that have been applied recently to Ireland, should only be taken as indicative, there appears to be broad evidence suggesting that the real exchange rate was overvalued in 2008<sup>5</sup>.

<sup>5</sup> See, for example, IMF 2009 Article IV Ireland Consultation and also the European Commission Quarterly Report on the Euro Area Volume 8, No. 1 2009.

**Table 6: Unit Labour Cost Levels, Euro area = 100, 2008**

	Whole Economy	Industry*
Ireland (GDP)	93	40
Ireland (GNP)	104	—
Euro area	100	100

\*Data for 2007, Industry including energy, taken as a proxy for manufacturing, Euro area 12 country composition. Sources: CB calculations, CSO and ECB.

## 6. Conclusions

This article describes recent trends and the current levels of the price and labour cost aspects of Ireland's competitiveness. The competitiveness of the Irish economy is especially important given the economy's dependence on international trade and foreign direct investment. As devaluation is no longer a policy option, even greater emphasis is placed on price and wage adjustments to generate improvements in competitiveness.

Notwithstanding the focus on a narrow meaning of competitiveness, price and labour cost competitiveness indicators generally can play a role in short-term forecasting and may also be helpful in signalling emerging imbalances and vulnerabilities of the economy. This may enable more timely policy adjustments but it is important to understand the underlying nature of the competitiveness trends and imbalances in the economy as different policy responses may be required. In this regard, price and labour cost competitiveness indicators should only form one element of the assessment of the competitiveness position.

The challenges of measuring price and labour cost competitiveness for the Irish economy are discussed in detail in this article. The approach to the compilation of harmonised competitiveness indicators, which were jointly developed by the Bank, other national central banks and the ECB, has been explained. Aside from their harmonised nature, these indicators have important properties such as the large set of trading partners to allow for the growing geographical diversification of trade and the use of a double weighting scheme to account for third market effects. Still, the respective indicators have merits and drawbacks and particularly when applied to Ireland. There is also some discussion of alternative competitiveness indicators developed by the Bank, which attempt to limit the undue influence of some distinctive features of Irish economy. The merits of the various indicators were highlighted with a view to clarifying the suitability of different sets of indicators to particular analyses. However, certain indicators suffer from potentially large distortions and avenues for addressing these issues via, for

example, the development of more sector-specific indicators, will be explored in future research. Furthermore, it would also be helpful to econometrically test the usefulness of these competitiveness indicators for forecasting at the whole economy and sectoral levels.

According to a range of the Bank's economy-wide competitiveness indicators, the Irish economy has experienced substantial losses in price and labour cost competitiveness during the past decade. In the early part of this decade, the appreciation in the real exchange rate could be explained by the unsustainability of a 'super-competitive' starting point and perhaps the final throes of a 'catching-up' process. Further into the decade, the strong personal consumption growth and the housing construction boom may have temporarily counter-balanced the consequences of the significant deterioration in competitiveness on the economy's growth rate. When the domestic demand boom came to an end, the consequences for an Irish economy characterised by uncompetitive price and labour costs, became more apparent and particularly acute in the context of a sharp contraction in world demand. This has weighed especially heavily on the more indigenous and labour intensive exporting sectors, with adverse sterling exchange rate movements exacerbating these vulnerabilities. With the prospect of a muted recovery in demand in important trading partners, regaining price and labour competitiveness needs to be a key priority in order to make Irish firms more robust to adverse shocks and to sustain an export-led recovery in the economy.

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### **Notice**

Publication of Tables A1, A4, B3, B5, B6, B7, C1, C12, D3–D8 and E1–E6 has been discontinued. These data are available from alternative sources, and readers are directed to these sources, which have been noted in previous bulletins. The CBFSAI Quarterly Bulletin and Monthly Statistics are also provided in electronic format on the website: [www.centralbank.ie](http://www.centralbank.ie) and the ECB Monthly Bulletin is available on the website: [www.ecb.int](http://www.ecb.int).

The layout and design of many tables in Sections A, B and C were changed significantly at the start of EMU in January 1999 and users should exercise caution when comparing these series with earlier data as the underlying definitions may have changed. Detailed definitions of the concepts in each table can be found in the Explanatory Notes on pages 57 to 61.

# Reporting Institutions

The following is a list of institutions currently submitting returns included under the headings in the Statistical Appendix.

## **Credit Institutions: Retail Clearing**

AIB Mortgage Bank  
Allied Irish Banks plc  
Bank of Ireland Mortgage Bank  
The Governor and Company of the Bank of Ireland  
Danske Bank A/S  
Ulster Bank Ireland Limited

## **Credit Institutions: Non-Clearing with Predominantly Domestic Business**

ABN AMRO Bank N.V.  
ACC Bank plc  
Anglo Irish Bank Corporation Limited  
Anglo Irish Mortgage Bank  
Bank of America National Association  
Bank of Scotland (Ireland) Limited  
BNP Paribas SA  
Citibank International plc  
DePfa Bank plc  
EBS Building Society  
EBS Mortgage Finance  
FCE Bank plc  
First Active plc  
HFC Bank Limited  
ICS Building Society  
Investec Bank plc  
Irish Life & Permanent plc  
Irish Nationwide Building Society  
KBC Bank Ireland plc  
Marks & Spencer Financial Services plc  
MBNA Europe Bank Limited  
Nationwide Building Society  
Northern Rock plc  
Postbank Ireland Limited

## **Credit Institutions: Non-Clearing with Predominantly Foreign Business**

Aareal Bank AG  
Bankinter S.A.  
Bank of Montreal Ireland plc  
Barclays Bank Ireland plc  
Barclays Bank plc  
BNP Paribas Securities Services SA  
CACEIS Bank Luxembourg  
Caja de Ahorros Y Monte de Piedad de Madrid  
Citco Bank Nederland N.V.  
Citibank Europe plc  
Commerzbank Europe (Ireland)  
DePfa ACS Bank  
DePfa-Bank Europe plc  
Deutsche Bank AG  
Dexia Banque Belgique  
Dexia Crédit Local  
DZ-Bank Ireland plc  
Dexia Municipal Agency  
Elavon Financial Service Limited  
Fortis Prime Fund Solutions Bank (Ireland) Limited  
Goldman Sachs Bank (Europe) plc  
Helaba Dublin Landesbank Hessen-Thuringen International  
Hewlett-Packard International Bank plc  
HSBC Bank plc  
HSBC Private Bank (UK) Limited  
Hypo Public Finance Bank  
ING Bank N.V.  
J.P. Morgan Bank Dublin plc  
J.P. Morgan Bank (Ireland) plc  
KBC Bank N.V. Dublin Branch

**Credit Institutions: Non-Clearing with Predominantly Foreign Business (Continued)**

Landesbank Hessen-Thüringen Girozentrale  
Leeds Building Society  
LGT Bank (Ireland) Limited  
Merrill Lynch International Bank Limited  
Naspa Dublin  
Pfizer International Bank Europe  
PNC International Bank Limited  
Rabobank Ireland plc  
Rabobank Nederland  
RBC Dexia Investor Services Bank SA  
Intesa Sanpaolo Bank Ireland plc  
Scotiabank (Ireland) Limited  
Société Générale SA  
The Bank of New York Mellon (Ireland) Ltd  
UBS (Luxembourg) SA  
UniCredit Bank Ireland plc  
Volkswagen Bank GmbH  
Wells Fargo Bank International  
WestLB Covered Bond Bank plc  
WestLB Ireland plc  
WGZ-Bank Ireland plc  
Zurich Bank

**Credit Institutions: Mortgage Lenders**

ACC Bank plc  
AIB Mortgage Bank  
Allied Irish Banks plc  
Anglo Irish Mortgage Bank  
Bank of Ireland Mortgage Bank  
The Governor and Company of the Bank of Ireland  
Bank of Scotland (Ireland) Limited  
Danske Bank A/S  
EBS Building Society  
EBS Mortgage Finance  
First Active plc  
ICS Building Society  
Irish Life & Permanent plc  
Irish Nationwide Building Society  
KBC Bank Ireland plc  
KBC Mortgage Bank  
Ulster Bank Ireland Limited

**Post Office Savings Bank**





# Section A

## Main Monetary Indicators



Table A2.1: Domestic Credit to Irish Residents

€ million	2009		
Return dates	30 Sept	30 Oct	30 Nov
<b>1. Components</b>			
<b>Credit Institutions: Retail Clearing</b>			
1. Loans to other residents (non-MFI, non-Government entities)	189,721	188,289	187,150
1.1 Euro	165,944	164,725	164,320
1.2 Non-euro	23,778	23,565	22,830
2. Holdings of securities, shares and other equity issued by other residents	16,721	16,816	16,829
2.1 Securities	15,765	15,717	15,722
2.1.1 Euro	15,658	15,611	15,618
2.1.2 Non-euro	106	106	104
2.2 Shares and other equity	957	1,099	1,106
2.2.1 Euro	892	1,034	1,042
2.2.2 Non-euro	65	65	65
3. General Government credit (central, regional and local)	4,419	4,490	4,338
3.1 Loans	478	502	427
3.1.1 Euro	478	502	427
3.1.2 Non-euro	—	—	—
3.2 Securities	3,941	3,988	3,910
3.2.1 Euro	3,941	3,988	3,910
3.2.2 Non-euro	—	—	—
4. Accrued interest receivable on credit to other residents	522	783	755
4.1 Euro	423	682	644
4.2 non-euro	99	102	111
<b>Credit Institutions: Non-Clearing</b>			
5. Loans to other residents (non-MFI, non-Government entities)	143,192	142,100	141,072 <sup>r</sup>
5.1 Euro	128,109	127,148	126,502 <sup>r</sup>
5.2 non-euro	15,082	14,951	14,571 <sup>r</sup>
6. Holdings of securities, shares and other equity issued by other residents	27,614	27,408	27,024
6.1 Securities	22,957	22,750	22,368
6.1.1 Euro	22,079	21,920	21,550
6.1.2 non-euro	879	829	818
6.2 Shares and other equity	4,657	4,659	4,657
6.2.1 Euro	4,546	4,547	4,546
6.2.2 non-euro	111	112	111
7. General Government credit (central, regional and local)	5,013	4,939	5,168
7.1 Loans	931	930	946
7.1.1 Euro	931	930	946
7.1.2 non-euro	—	—	—
7.2 Securities	4,082	4,009	4,221
7.2.1 Euro	4,082	4,009	4,221
7.2.2 Non-euro	—	—	—
8. Accrued interest receivable on credit to other residents	315	348	422
8.1 Euro	278	303	364
8.2 non-euro	37	44	57
<b>Other</b>			
9. Non-euro lending by credit institutions to non-MFI IFSC companies	20,630	20,304	19,708
10. Total lending by credit institutions to non-MFI IFSC companies	28,628	28,131	27,401

Table A2.2: Private-Sector Credit to Irish Residents

	Private sector credit (PSC)				Residential mortgage lending			
	Total	PSC Growth Rates		Non-Mortgage Credit	Outstanding level <sup>b</sup>	Unadjusted year-to-year change	Adjusted level <sup>c</sup>	Adjusted year-to-year change <sup>c,d</sup>
	(1+2+4+5+6+8)	Unadjusted year-to-year change	Adjusted year-to-year change <sup>a</sup>	Adjusted year-to-year change <sup>a</sup>	€ million	%	€ million	%
	€ million	%	%	%	€ million	%	€ million	%
<b>2007</b>								
April	331,842	20.2	22.2	29.4	113,722	11.6	128,722	21.0
May	337,438	19.3	20.9	27.7	115,397	10.8	130,215	20.0
June	342,774	18.8	20.2	26.3	115,704	10.9	131,845	19.0
July	347,684	18.5	20.3	25.9	117,549	11.6	133,441	17.9
August	351,650	18.4	20.1	25.0	119,098	12.5	134,723	17.0
September	360,112	19.0	19.5	24.5	120,522	11.6	135,963	16.1
October	366,705	18.7	18.5	23.4	121,872	10.8	137,125	15.1
November	372,703	18.1	17.1	21.6	123,407	10.0	138,457	14.2
December	376,796	18.6	17.0	20.6	123,002	11.2	139,842	13.4
<b>2008</b>								
January	378,202	17.7	16.6	20.2	123,981	10.6	140,666	12.9
February	379,072	16.2	15.6	18.9	124,888	10.0	141,378	12.3
March	384,340	17.1	17.1	20.8	124,385	10.7	142,403	11.6
April	386,342	16.4	15.9	19.3	125,348	10.2	143,417	11.4
May	390,325	15.7	15.1	18.3	126,597	9.7	144,456	10.9
June	392,937	14.6	14.3	20.2	120,569	4.2	145,341	10.2
July	395,857	13.9	13.2	18.8	121,442	3.3	146,304	9.6
August	399,473	13.6	12.8	18.6	122,125	2.5	146,813	9.0
September	399,143	10.8	10.5	15.4	123,045	2.1	147,550	8.5
October	401,244	9.4	8.9	13.4	123,240	1.1	147,574	7.6
November	403,945	8.4	9.1	17.7	115,944	-6.0	147,881	6.8
December	395,070	4.8	7.3	15.4	114,290	-7.1	148,115	5.9
<b>2009</b>								
January	398,069	5.3	6.6	14.6	114,772	-7.4	148,465	5.5
February	398,252	5.1	5.6	13.3	114,970	-7.9	148,523	5.1
March	392,258	2.1	2.4	8.5	113,637	-8.6	148,542	4.3
April	390,446	1.1	1.6	7.6	113,679	-9.3	148,429	3.5
May	388,859	-0.4	0.6	6.5	113,765	-10.1	148,411	2.7
June	387,350	-1.4	-0.8	1.7	113,860	-5.6	148,349	2.1
July	383,969	-3.0	-2.2	-0.2	113,744	-6.3	148,067	1.2
August	382,460	-4.3	-3.0	0.6	109,618	-10.2	147,983	0.8
September	378,086	-5.3	-3.4	0.4	109,764	-10.8	147,969	0.3
October	375,744	-6.4	-3.7	0.0	109,752	-10.9	147,807	0.2
November	373,251 <sup>f</sup>	-7.6 <sup>f</sup>	-5.3 <sup>f</sup>	-5.4	109,779	-5.3	147,673	-0.1

<sup>a</sup> This growth rate excludes lending to non-MFI IFSC companies and valuation effects arising from exchange-rate movements.

<sup>b</sup> Data relate to residential mortgages as reported on the balance sheets of within-the-State offices of credit institutions, i.e., mortgages extended on a cross-border basis are not included. The total reported is the same figure as that reported vis-à-vis Irish residents under Item 5.6 (Assets) of Table C3.

<sup>c</sup> In order to more accurately capture the indebtedness of Irish residents for house purchase, the level of outstanding securitised mortgages (i.e. the initial amount of the securitisation less all repayments of capital made by the borrowers) has been added to the outstanding level of residential mortgages, giving rise to the adjusted growth rate.

<sup>d</sup> A series of reclassifications from term loans to residential mortgages, starting in September 2005, boosted the level of residential mortgages. These reclassifications have been excluded in the calculation of growth rates between September 2005 and February 2007. The resulting growth rates, shown in the final column, are termed 'underlying' growth rates.

Table A3: Irish Contribution to Euro Area Money Supply<sup>a</sup>

€ million	2009						
	End-month	30 Sept	30 Oct	30 Nov			
<b>1. Components<sup>b</sup></b>							
1. Currency issued <sup>c</sup>		10,830	10,995	11,173			
2. Overnight deposits		75,983	77,494	77,800			
<b>M1 (1+2)</b>		86,812	88,489	88,973			
3. Deposits with agreed maturity: up to 2 years		86,785	87,561	84,310			
4. Deposits redeemable at notice: up to 3 months		14,942	15,294	15,697			
5. Post Office Savings Bank Deposits		1,833	1,836	1,836			
<b>M2 (M1+3+4+5)</b>		190,373	193,180	190,816			
6. Repurchase agreements		463	754	908			
7. Debt securities: up to 2 years maturity <sup>d</sup>		-45,768	-44,214	-47,449			
8. Money market fund shares/units		56,022	58,334	58,131			
<b>M3 (M2+6+7+8)</b>		201,088	208,054	202,406			
<b>2. Selected Measures of Irish Contribution</b>							
<b>Components</b>	<b>M1</b>		<b>M2</b>		<b>M3</b>		
	1+2		M1+3+4+5		M2+6+7+8		
	Amount	Headline year-to-year change – %	Amount	Headline year-to-year change – %	Amount	Headline year-to-year change – % <sup>e</sup>	
<b>2009</b>							
	30 September	86,812	5.9	190,373	-3.5	201,088	0.6
	30 October	88,489	6.9	193,180	0.6	208,054	6.0
	30 November	88,973	11.8	190,816	0.5	202,406	2.8

**a** From 1 January 2009, credit unions are classified as credit institutions. However, their balance sheet data are not included in the *Monthly Statistics*, and Table A3 does not currently include credit unions' deposits in the Irish contribution to the euro-area money supply.

**b** *Vis-à-vis* residents of Ireland and other Monetary Union Members.

**c** This comprises the Bank's share of euro banknotes issued in the Eurosystem, in proportion to its paid-up shares in the capital of the ECB, plus coin issued by the Bank less holdings of issued euro banknotes and coin by the MFI sector.

**d** In line with Eurosystem requirements, these data exclude securities issued to non-euro area residents, while holdings by credit institutions of debt securities up to two years maturity issued by euro-area MFIs are netted off debt securities issued in this category.

**e** Year-to-year changes in M3 from June 2009 have been adjusted to account for residency reclassifications of money market fund shares/units in this month which would otherwise artificially lower the annual change in the broad money aggregate.



## **Section B**

### **Interest Rates and Exchange Rates and Balance of Payments**





**Table B1: Official and Selected Interest Rates**

Per cent per annum End-month	2009				
	Aug.	Sep.	Oct.	Nov.	Dec.
<b>1. Eurosystem Official Interest Rates<sup>a</sup></b>					
Marginal lending facility	1.75	1.75	1.75	1.75	1.75
Deposit facility	0.25	0.25	0.25	0.25	0.25
Main refinancing operations	1.00	1.00	1.00	1.00	1.00
<b>2. Interbank Market — Euribor<sup>b</sup></b>					
Eonia (overnight)	0.34	0.53	0.40	0.43	0.41
1 month fixed	0.48	0.44	0.42	0.47	0.45
3 month fixed	0.82	0.75	0.72	0.72	0.70
12 month fixed	1.30	1.24	1.24	1.23	1.25
<b>3. Clearing Banks' Prime Rate — Ireland<sup>c</sup></b>					
	0.75-2.10	0.70-2.10	0.70-2.00	0.70-2.00	0.75-2.00
<b>4. House Purchase Loans — Ireland<sup>d</sup></b>					
	2.45 <sup>f</sup> -5.90	2.45-5.90	2.45-5.90	2.45-5.90	2.45-5.90
<b>5. Government Securities Market — Ireland<sup>g</sup></b>					
2 years to maturity	2.39	2.03	2.04	2.22	2.23
5 years to maturity	3.36	3.11	3.10	3.26	3.25
10 years to maturity	4.87	4.71	4.76	4.91	4.94

**a** On 7 May 2009, the ECB announced a decrease of 0.5 of a percentage point in the 'marginal lending facility', and 0.25 of a percentage point in the 'main refinancing operations' rates.

**b** Euribor is the rate at which euro interbank term deposits are offered by one prime bank to another, within the euro area. Daily data from 30 December 1998 are available from [www.euribor.org](http://www.euribor.org).

**c** Rates are representative of those charged to large commercial customers for short-term borrowings.

**d** These are standard variable mortgage rates for 'Credit Institutions: Mortgage Lenders' reporting to the Central Bank & Financial Services Authority of Ireland.

**g** The yields shown under this heading are representative.

Table B2.1: Retail Interest Rates<sup>a</sup> and Volumes for Outstanding Amounts<sup>b</sup>

End-month	2009				
	July	Aug.	Sep.	Oct.	Nov.
<b>DEPOSITS</b>					
<b>Households</b>					
<i>With agreed maturity</i>					
— Up to 2 years	<b>3.51</b>	<b>3.49</b>	<b>3.46</b>	<b>3.38</b>	<b>3.28</b>
	<i>33,228</i>	<i>32,766</i>	<i>32,275</i>	<i>31,621</i>	<i>30,935</i>
— Over 2 years	<b>2.41</b>	<b>2.49</b>	<b>2.37</b>	<b>2.38</b>	<b>1.98</b>
	<i>3,069</i>	<i>2,970</i>	<i>3,038</i>	<i>3,015</i>	<i>3,150</i>
<b>Non-financial corporations</b>					
<i>With agreed maturity</i>					
— Up to 2 years	<b>2.21</b>	<b>2.10</b>	<b>2.09</b>	<b>2.02</b>	<b>2.05</b>
	<i>22,037</i>	<i>22,445</i>	<i>22,062</i>	<i>21,836</i>	<i>21,487</i>
— Over 2 years	<b>1.30</b>	<b>1.15</b>	<b>0.97</b>	<b>0.94</b>	<b>0.92</b>
	<i>3,080</i>	<i>3,103</i>	<i>3,047</i>	<i>3,042</i>	<i>2,927</i>
<b>LOANS</b>					
<b>Households</b>					
<i>For house purchase</i>					
— Up to 1 year original maturity	<b>2.86</b>	<b>2.80</b>	<b>2.80</b>	<b>2.77</b>	<b>2.76</b>
	<i>1,143</i>	<i>1,106</i>	<i>1,102</i>	<i>1,091</i>	<i>1,052</i>
— Over 1 and up to 5 years original maturity	<b>2.77</b>	<b>2.73</b>	<b>2.70</b>	<b>2.74</b>	<b>2.72</b>
	<i>2,184</i>	<i>2,175</i>	<i>2,146</i>	<i>2,113</i>	<i>2,121</i>
— Over 5 years original maturity	<b>2.84</b>	<b>2.83</b>	<b>2.73</b>	<b>2.67</b>	<b>2.66</b>
	<i>110,241</i>	<i>106,169</i>	<i>106,346</i>	<i>106,364</i>	<i>106,406</i>
<i>For consumer credit and other loans</i>					
— Up to 1 year original maturity	<b>7.07</b>	<b>7.10</b>	<b>7.07</b>	<b>7.06</b>	<b>7.01</b>
	<i>7,821</i>	<i>7,645</i>	<i>7,489</i>	<i>7,413</i>	<i>7,559</i>
— Over 1 and up to 5 years original maturity	<b>5.87</b>	<b>5.81</b>	<b>6.01</b>	<b>5.88</b>	<b>5.85</b>
	<i>9,760</i>	<i>9,634</i>	<i>8,173</i>	<i>8,155</i>	<i>7,900</i>
— Over 5 years original maturity	<b>4.10</b>	<b>3.97</b>	<b>3.97</b>	<b>3.92</b>	<b>3.89</b>
	<i>9,093</i>	<i>9,017</i>	<i>9,042</i>	<i>8,825</i>	<i>8,581</i>
<b>Non-financial corporations</b>					
— Up to 1 year original maturity	<b>3.32</b>	<b>3.23</b>	<b>3.10</b>	<b>3.01</b>	<b>3.05</b>
	<i>47,045</i>	<i>47,041</i>	<i>49,232</i>	<i>50,372</i>	<i>49,806</i>
— Over 1 and up to 5 years original maturity	<b>3.50</b>	<b>3.36</b>	<b>3.30</b>	<b>3.26</b>	<b>3.23<sup>r</sup></b>
	<i>52,984</i>	<i>53,406</i>	<i>51,733</i>	<i>51,328</i>	<i>51,200<sup>f</sup></i>
— Over 5 years original maturity	<b>3.19</b>	<b>3.11</b>	<b>3.00</b>	<b>2.96</b>	<b>2.95</b>
	<i>59,021</i>	<i>58,412</i>	<i>57,869</i>	<i>55,131</i>	<i>55,265</i>

**a** Rates reported are weighted averages for each instrument category.

**b** The interest rate and volume data refer to euro-denominated loans and deposits *vis-à-vis* households and non-financial corporations resident in Ireland and other Monetary Union Member States.

**Note:** Rates are in bold in percentages per annum; volumes are in italics in € million.

Table B2.2: Retail Interest Rates<sup>a</sup> and Volumes for New Business<sup>b</sup>

End-month	2009				
	July	Aug.	Sep.	Oct.	Nov.
<b>DEPOSITS</b>					
<b>Households</b>					
— Overnight <sup>c</sup>	<b>0.59</b>	<b>0.60</b>	<b>0.63</b>	<b>0.63</b>	<b>0.64</b>
	<i>37,101</i>	<i>37,844</i>	<i>36,721</i>	<i>37,660</i>	<i>37,465</i>
— With agreed maturity	<b>1.48</b>	<b>1.40</b>	<b>1.23</b>	<b>1.33</b>	<b>1.49</b>
	<i>13,029</i>	<i>10,578</i>	<i>11,882</i>	<i>11,325</i>	<i>11,461</i>
— Redeemable at notice <sup>c</sup>	<b>2.29</b>	<b>2.29</b>	<b>2.21</b>	<b>2.22</b>	<b>2.24</b>
	<i>13,664</i>	<i>14,143</i>	<i>14,551</i>	<i>14,883</i>	<i>15,314</i>
<b>Non-financial corporations</b>					
— Overnight <sup>c</sup>	<b>0.36</b>	<b>0.29</b>	<b>0.30</b>	<b>0.30</b>	<b>0.30</b>
	<i>17,561</i>	<i>18,995</i>	<i>18,740</i>	<i>19,136</i>	<i>19,202</i>
— With agreed maturity	<b>1.22</b>	<b>1.02</b>	<b>1.00</b>	<b>0.96</b>	<b>0.94<sup>f</sup></b>
	<i>12,485</i>	<i>11,180</i>	<i>11,858</i>	<i>10,300</i>	<i>10,579<sup>f</sup></i>
<b>LOANS</b>					
<b>Households</b>					
<i>Bank overdraft<sup>c</sup></i>	<b>12.40</b>	<b>12.51</b>	<b>12.64</b>	<b>12.71</b>	<b>12.66</b>
	<i>2,900</i>	<i>2,881</i>	<i>2,788</i>	<i>2,758</i>	<i>2,743</i>
<i>For consumption purposes</i>					
— Floating rate and up to 1 year initial rate fixation	<b>4.27</b>	<b>4.22</b>	<b>4.47</b>	<b>4.05</b>	<b>4.65</b>
	<i>332</i>	<i>308</i>	<i>291</i>	<i>288</i>	<i>286</i>
— Over 1 year initial rate fixation	<b>9.61</b>	<b>9.70</b>	<b>9.68</b>	<b>9.83</b>	<b>10.01</b>
	<i>80</i>	<i>67</i>	<i>66</i>	<i>80</i>	<i>60</i>
<i>For house purchases</i>					
— Floating rate and up to 1 year initial rate fixation	<b>2.72</b>	<b>2.62</b>	<b>2.62</b>	<b>2.67</b>	<b>2.61</b>
	<i>2,195</i>	<i>1,594</i>	<i>1,696</i>	<i>1,765</i>	<i>1,669</i>
— Over 1 year initial rate fixation	<b>3.60</b>	<b>3.56</b>	<b>3.65</b>	<b>3.60</b>	<b>3.58</b>
	<i>356<sup>f</sup></i>	<i>397</i>	<i>335</i>	<i>358</i>	<i>322</i>
<i>For other purposes</i>					
	<b>3.45</b>	<b>3.51</b>	<b>4.06</b>	<b>3.79</b>	<b>3.51</b>
	<i>143</i>	<i>113</i>	<i>89</i>	<i>78</i>	<i>114</i>
<b>Non-financial corporations</b>					
<i>Bank overdraft<sup>c</sup></i>	<b>5.79</b>	<b>5.80</b>	<b>5.75</b>	<b>5.75</b>	<b>5.69</b>
	<i>5,643</i>	<i>5,570</i>	<i>5,635</i>	<i>5,371</i>	<i>5,497</i>
<i>Other loans up to €1 million</i>					
— Floating rate and up to 1 year initial rate fixation	<b>3.89</b>	<b>3.58</b>	<b>3.50</b>	<b>3.59</b>	<b>3.94</b>
	<i>897</i>	<i>646</i>	<i>642</i>	<i>542</i>	<i>627</i>
— Over 1 and up to 5 years initial rate fixation	<b>4.56</b>	<b>4.50</b>	<b>4.63</b>	<b>4.81</b>	<b>4.62</b>
	<i>59</i>	<i>50</i>	<i>47</i>	<i>41</i>	<i>41</i>
— Over 5 years initial rate fixation	<b>3.92</b>	<b>3.90</b>	<b>4.15</b>	<b>3.94</b>	<b>4.10</b>
	<i>62</i>	<i>43</i>	<i>46</i>	<i>45</i>	<i>44</i>
<i>Other loans over €1 million</i>					
— Floating rate and up to 1 year initial rate fixation	<b>3.03</b>	<b>3.01</b>	<b>2.71</b>	<b>2.71</b>	<b>2.59</b>
	<i>7,028</i>	<i>4,934</i>	<i>4,122</i>	<i>3,651</i>	<i>2,761</i>
— Over 1 and up to 5 years initial rate fixation	<b>2.31</b>	<b>2.80</b>	<b>2.24</b>	<b>2.51</b>	<b>2.67</b>
	<i>143</i>	<i>145</i>	<i>185</i>	<i>148</i>	<i>142</i>
— Over 5 years initial rate fixation	<b>3.21</b>	<b>4.80</b>	<b>2.47</b>	<b>3.66</b>	<b>3.16</b>
	<i>48</i>	<i>109</i>	<i>50</i>	<i>36</i>	<i>110</i>
<b>APRC for loans to households</b>					
<i>For consumption purposes</i>					
	<b>5.33</b>	<b>5.21</b>	<b>5.44</b>	<b>5.12</b>	<b>5.56</b>
	<i>412</i>	<i>375</i>	<i>357</i>	<i>368</i>	<i>347</i>
<i>For house purchases</i>					
	<b>2.88</b>	<b>2.81</b>	<b>2.85</b>	<b>2.86</b>	<b>2.78</b>
	<i>2,550<sup>f</sup></i>	<i>1,991</i>	<i>2,031</i>	<i>2,122</i>	<i>1,991</i>

<sup>a</sup> Rates reported are weighted averages for each instrument category.

<sup>b</sup> The interest rate and volume data refer to euro-denominated loans and deposits *vis-à-vis* households and non-financial corporations resident in Ireland and other Monetary Union Member States.

<sup>c</sup> For these categories, new business is defined as outstanding amounts.

**Note:** Rates are in bold in percentages per annum; volumes are in italics in € million.

Table B4: Harmonised Competitiveness Indicators for Ireland (HCIs)

1999 Q1 = 100	Nominal HCI (Monthly average)	Real HCI (Deflated by consumer prices)	Real HCI (Deflated by producer prices)
<b>2005</b>			
January	106.57	117.75	108.17
February	105.93	116.89	107.69
March	106.53	117.22	107.92
April	105.69	116.57	107.41
May	104.89	115.78	107.18
June	102.84	113.65	105.13
July	103.14	114.04	105.68
August	103.68	114.53	105.48
September	103.36	114.47	104.49
October	102.95	114.02	104.01
November	102.28	113.08	104.14
December	102.36	112.80	104.22
<b>2006</b>			
January	102.97	113.60	104.14
February	102.36	113.28	104.02
March	102.88	113.79	104.23
April	103.72	114.71	104.46
May	104.73	116.00	104.81
June	104.89	116.10	104.71
July	105.01	116.34	104.39
August	105.00	116.65	104.35
September	104.79	116.23	104.98
October	104.38	115.96	104.33
November	105.00	116.33	104.63
December	105.82	117.47	105.44
<b>2007</b>			
January	105.07	116.88	105.31
February	105.39	117.16	104.75
March	106.12	118.02	104.71
April	106.78	118.80	104.89
May	106.75	118.78	104.72
June	106.34	118.30	104.57
July	106.91	119.09	104.84
August	106.78	119.02	105.66
September	107.68	119.98	105.69
October	108.49	120.75	106.88
November	109.88	122.07	106.80
December	109.97	122.02	107.77
<b>2008</b>			
January	110.79	122.76	108.11
February	110.76	122.93	108.27
March	113.22	125.90	109.63
April	114.38	126.80	111.59
May	113.88	126.17	109.80
June	113.92	126.04	108.80
July	114.39	125.96	107.99
August	112.53	123.75	108.18
September	111.33	122.53	106.57
October	108.71	119.76	106.18
November	108.30	119.57	108.20
December	112.34	123.91	112.78
<b>2009</b>			
January	112.04	123.46	112.79
February	110.46	120.79	111.83
March	112.48	122.62	113.55
April	111.86	121.79	113.68
May	112.33	121.63	113.74
June	112.76	121.72	113.24
July	112.91	121.48	112.84
August	113.21	121.47	113.64
September	114.47	122.30	115.16
October	115.46	123.04	116.31
November	115.27	122.67	116.07

**Notes:**

1. See Box B in the 'Domestic Prices, Costs and Competitiveness' Chapter of the Bank's Quarterly Bulletin No. 2 of 2007.
2. A rise in an indicator implies a disimprovement in competitiveness while a fall in an indicator implies an improvement.
3. These indicators are available from January 1995 in excel format on the Bank's website.
4. Real HCIs may be subject to revisions to reflect latest available price data.

**Table B5: Indices of Relative Wage Costs in Manufacturing Industry**

1999 = 100	Average Hourly Earnings <sup>a</sup>		Unit Wage Costs <sup>a</sup>	
	Ireland	Major Trading Partners	Ireland <sup>c</sup>	Major Trading Partners
<b>Year</b>				
1990	69	71	166	90
1991	73	75	171	94
1992	76	79	163	97
1993	81	83	164	99
1994	82	86	155	98
1995	84	89	136	99
1996	87	92	135	100
1997	90	95	124	100
1998	95	97	110	101
1999	100	100	100	100
2000	106	105	97	99
2001	117	108	95	101
2002	125	112	88	101
2003	131	116	85	101
2004	137	119	85	99
2005	142	122	84	98
2006	149	126	85	98
2007	155	130	85	98
2008	163	134	87	101
2009 <sup>f</sup>	168	136	79	106
2010 <sup>f</sup>	169	139	75	106
1999 = 100	Relative Hourly Earnings <sup>b</sup>		Relative Unit Wage Costs <sup>b</sup>	
	National Currencies	Common Currency (€)	National Currencies	Common Currency (€)
<b>Year</b>				
1990	97	110	185	209
1991	97	107	181	201
1992	96	109	169	192
1993	97	102	165	174
1994	96	101	157	166
1995	95	101	137	146
1996	95	104	135	147
1997	95	104	124	136
1998	97	101	109	113
1999	100	100	100	100
2000	102	95	98	91
2001	108	102	94	88
2002	113	108	87	83
2003	113	117	84	87
2004	116	122	86	90
2005	116	134	86	99
2006	118	125	87	93
2007	119	130	87	94
2008	121	139	86	98
2009 <sup>f</sup>	123	142	75	86
2010 <sup>f</sup>	121	141	71	83

**a** In national currencies.

**b** A rise in the index implies a disimprovement in competitiveness while a fall in the index implies an improvement.

**c** Changes in domestic unit wage costs should be interpreted with caution because of the strong influence of the chemicals sector in recent years.

**Sources:** Ireland — Central Statistics Office and Central Bank estimates.

Major trading partners comprise the United Kingdom, the United States, Germany, France, Italy, Belgium, the Netherlands, Spain and Singapore. Data on these were derived from the OECD and other sources.

**Note:** This table was formerly called Table E2.



## Section C

### Banking and Other Financial Institutions

**Note:** From 1 January 2009, credit unions are classified as credit institutions. Therefore, deposits from, and loans to credit unions are now included under the deposit and loans balances with other MFIs in Tables C3-C7. However, credit unions' balance sheets are not currently incorporated in Tables C3-C7.





Table C2: Financial Statement of the Central Bank and Financial Services Authority of Ireland<sup>a</sup>

€ million	1. Assets								
	Gold and gold receivables	Claims on non-euro area residents in foreign currency	Claims on euro area residents in foreign currency	Claims on non-euro area residents in euro	Lending to euro area credit institutions in euro	of which			
						Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations	
	1	2	3	4	5	6	7	8	
<b>2008</b>									
26 December	121	571	5,078	525	88,562	39,581	48,981	—	
<b>2009</b>									
30 January	120	546	6,238	1,389	91,174	36,300	54,874	—	
27 February	120	517	9,541	1,348	103,390	42,213	61,177	—	
27 March	120	566	11,041	1,568	120,628	52,424	67,304	—	
24 April	133	589	11,411	1,478	120,577	46,448	74,129	—	
29 May	133	636	8,328	1,740	118,087	46,733	71,354	—	
26 June	133	665	7,352	1,488	130,423	20,090	110,333	—	
31 July	129	609	4,802	1,665	110,215	7,497	102,718	—	
28 August	129	1,290	2,897	1,185	98,403	10,715	87,688	—	
25 September	129	1,367	2,707	1,603	91,573	14,418	77,155	—	
30 October	132	1,310	125	1,527	87,404	6,750	80,654	—	
27 November	132	1,258	154	1,159	78,664	4,340	74,324	—	
25 December	132	1,278	132	1,037	91,958	7,525	84,433	—	
<b>2. Liabilities</b>									
	Banknotes in circulation	Liabilities to euro area credit institutions in euro	of which		Fixed-term deposits	Deposits related to margin calls	Fine-tuning reverse operations	Other liabilities to euro area credit institutions in euro	Debt Certificates issued
	1	2	Current accounts (covering the minimum reserve system)	Deposit facility	5	6	7	8	9
<b>2008</b>									
26 December	9,548	21,444	13,210	8,234	—	—	—	—	—
<b>2009</b>									
30 January	10,830	13,324	8,506	4,818	—	—	—	—	—
27 February	10,861	10,321	9,157	761	—	403	—	—	—
27 March	11,095	10,895	10,686	109	—	100	—	—	—
24 April	11,044	11,606	11,480	26	—	100	—	—	—
29 May	11,145	7,225	7,225	—	—	—	—	—	—
26 June	11,206	14,763	7,951	6,812	—	—	—	—	—
31 July	11,312	9,865	7,679	2,186	—	—	—	—	—
28 August	11,313	9,670	7,230	2,440	—	—	—	—	—
25 September	11,331	13,297	11,337	1,960	—	—	—	—	—
30 October	11,295	10,121	8,371	1,750	—	—	—	—	—
27 November	11,390	10,950	10,387	563	—	—	—	—	—
25 December	12,219	13,893	8,840	5,053	—	—	—	—	—

<sup>a</sup> Data relate to the last Friday of the month.

**Note:** An advance release calendar for the publication of the analytical accounts of the CBFSAI and of the banking sector that meets the IMF's SDDS requirements is published on the IMF Bulletin Board, <http://dsbb.imf.org>.

Table C2 — continued

## 1. Assets

Structural Reverse operations	Marginal Lending Facility	Credits related to margin calls	Other claims on euro area credit institutions in euro	Securities of euro area residents in euro	General government debt in euro	Other assets	Total Assets	
9	10	11	12	13	14	15	16	
—	—	—	123	8,466	—	7,636	111,082	<b>2008</b> 26 December
—	—	—	322	13,986	—	1,585	115,360	<b>2009</b> 30 January
—	—	—	526	13,877	—	1,558	130,877	27 February
—	900	—	271	13,930	—	11,726	159,850	27 March
—	—	—	530	13,880	—	11,673	160,271	24 April
—	—	—	408	13,800	—	14,331	157,463	29 May
—	—	—	428	14,056	—	15,290	169,835	26 June
—	—	—	334	14,111	—	14,193	146,058	31 July
—	—	—	503	14,595	—	11,448	130,450	28 August
—	—	—	65	14,699	—	11,087	123,230	25 September
—	—	—	200	14,861	—	9,111	114,670	30 October
—	—	—	330	15,303	—	10,566	107,566	27 November
—	—	—	636	15,150	—	13,474	123,797	25 December

## 2. Liabilities

Liabilities to other euro area residents in euro	Liabilities to non-euro area residents in euro	Liabilities to euro area residents in foreign currency	Liabilities to non-euro area residents in foreign currency	Counterpart of Special Drawing Rights allocated by the IMF	Revaluation accounts	Capital and reserves	Other liabilities	Total Liabilities	
10	11	12	13	14	15	16	17	18	
25,763	55	—	—	95	135	1,191	52,851	111,082	<b>2008</b> 26 December
31,422	15	—	—	96	242	1,169	58,262	115,360	<b>2009</b> 30 January
30,286	15	—	—	96	242	1,319	77,737	130,877	27 February
30,678	2,164	—	—	96	242	1,320	103,360	159,850	27 March
22,710	4,443	—	—	98	295	1,317	108,758	160,271	24 April
19,985	4,568	—	—	98	295	1,305	112,842	157,463	29 May
24,689	4,620	—	—	98	295	1,291	112,873	169,835	26 June
31,309	4,648	—	—	96	208	1,285	87,335	146,058	31 July
30,938	4,734	—	—	773	208	1,284	71,530	130,450	28 August
28,319	4,554	—	—	845	208	1,284	63,392	123,230	25 September
30,487	3,538	—	—	838	215	1,283	56,893	114,670	30 October
31,673	12	—	—	838	215	1,287	51,201	107,566	27 November
25,759	10	—	—	838	215	1,290	69,573	123,797	25 December

Table C3: Credit Institutions<sup>a</sup>: Aggregate Balance Sheet

€ million	30 September 2009			
	Irish residents	Other Monetary Union residents	Rest of World residents	Total
Vis-à-vis				
<b>Liabilities</b>				
1. Capital and reserves	54,908	13,803	14,986	83,696
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	169,921	183,489	253,623	607,033
3. Deposits from Central Bank	88,339	—	—	88,339
3.1 Short-term	88,339	—	—	88,339
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	3,324	849	4,810	8,984
5. Deposits from other residents (non-MFIs, non-Government entities)	170,369	34,180	74,678	279,227
5.1 Overnight: Current accounts	34,391	668	14,491	49,550
Demand accounts	38,744	1,495	19,822	60,061
5.2 Agreed maturity: Up to and including 1 year	63,238	12,811	26,360 <sup>r</sup>	102,409 <sup>r</sup>
1 to 2 years	9,372	356	1,385	11,113
Over 2 years	9,832	18,718	3,208	31,758
5.3 Notice: Up to and including 3 months	14,780	132	708 <sup>r</sup>	15,620 <sup>r</sup>
Over 3 months	1	—	—	1
5.4 Repurchase agreements	13	—	8,704	8,716
6. Debt securities issued	50,665	28,442	100,918	180,025
6.1 Up to and including 1 year	3,339	6,240	31,357	40,936
6.2 1 to 2 years	13,683	1,719	14,740	30,142
6.3 Over 2 years	33,643	20,483	54,821	108,947
7. Remaining liabilities	37,422	7,110	33,845	78,378
<b>Total liabilities</b>	<b>574,950</b>	<b>267,873</b>	<b>482,860</b>	<b>1,325,683</b>
<b>Assets</b>				
1. Holdings of notes and coin	1,069	—	17	1,086
2. Loans to credit institutions and other MFIs (excluding Central Bank)	169,921	54,248	177,878	402,048
3. Balances with Central Bank	10,177	97	25	10,299
3.1 Mandatory balances	10,177	—	—	10,177
3.2 Other	—	97	25	122
4. Loans to general government (central, regional and local)	1,409	10,777	4,030	16,216
5. Loans to other residents (non-MFI, non-Government entities)	371,635	67,416	161,308	600,358
5.1 Overdrafts	8,921	50	-2,471	6,500
5.2 Repurchase agreements	29	—	10,444	10,473
5.3 Loans up to and including 1 year	52,139	2,126	6,203	60,469
5.4 Term/revolving loans	139,751	25,912	35,887	201,551
5.5 Instalment credit/hire-purchase/leases	2,796	242	198	3,236
5.6 Residential mortgages	109,764	96	1,197	111,056
5.7 Other mortgages	16,200	785	721	17,707
5.8 Other loans and securities issued to other residents	42,034	38,203	109,129	189,366
6. Holdings of securities	33,873	114,086	71,009	218,968
6.1 Issued by MFIs	25,851	57,330	38,866	122,046
6.2 Issued by general government	8,023	56,756	32,143	96,922
6.2.1 Exchequer notes	752	4,786	915	6,454
6.2.2 Securities	7,270	51,970	31,227	90,468
7. Holdings of shares and other equity	8,734	2,345	4,545	15,624
7.1 Issued by MFIs	3,121	648	1,426	5,195
7.2 Issued by other residents (non-MFI, non-Government entities)	5,613	1,698	3,119	10,430
8. Fixed assets	1,509	—	—	1,509
9. Remaining assets	25,314	9,004	25,257	59,575
<b>Total assets</b>	<b>623,641</b>	<b>257,972</b>	<b>444,069</b>	<b>1,325,683</b>

<sup>a</sup> Loans and deposits from credit unions are now captured in Item 2 of assets and liabilities, but credit unions' balance sheet data are not included in Tables C3-C7.

Table C3 — continued

€ million	30 October 2009				
	Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>					
1. Capital and reserves		54,656	13,819	15,436	83,910
2. Deposits from credit institutions and other MFIs (excluding Central Bank)		169,211	179,672	251,240	600,122
3. Deposits from Central Bank		87,404	—	—	87,404
3.1 Short-term		87,404	—	—	87,404
3.2 Other		—	—	—	—
4. Deposits from general government (central, regional and local)		3,262	1,087	5,320	9,669
5. Deposits from other residents (non-MFIs, non-Government entities)		172,885	34,503	72,982	280,369
5.1 Overnight: Current accounts		35,428	463	14,255	50,147
Demand accounts		39,417	1,526	19,939	60,883
5.2 Agreed maturity: Up to and including 1 year		63,571	13,109	25,383	102,063
1 to 2 years		9,492	366	1,520	11,378
Over 2 years		9,824	18,626	2,876	31,326
5.3 Notice: Up to and including 3 months		15,147	113	895	16,155
Over 3 months		—	—	—	—
5.4 Repurchase agreements		4	300	8,113	8,417
6. Debt securities issued		49,777	27,858	102,055	179,689
6.1 Up to and including 1 year		4,327	5,926	32,600	42,853
6.2 1 to 2 years		12,872	1,698	14,648	29,218
6.3 Over 2 years		32,577	20,234	54,807	107,619
7. Remaining liabilities		33,655	7,099	33,540	74,294
<b>Total liabilities</b>		<b>570,849</b>	<b>264,037</b>	<b>480,571</b>	<b>1,315,458</b>
<b>Assets</b>					
1. Holdings of notes and coin		967	—	13	980
2. Loans to credit institutions and other MFIs (excluding Central Bank)		169,211	55,680	177,335	402,226
3. Balances with Central Bank		11,613	96	25	11,734
3.1 Mandatory balances		9,864	—	—	9,864
3.2 Other		1,750	96	25	1,870
4. Loans to general government (central, regional and local)		1,432	10,697	4,090	16,218
5. Loans to other residents (non-MFI, non-Government entities)		368,856	67,074	160,698	596,628
5.1 Overdrafts		9,002	49	-3,001	6,049
5.2 Repurchase agreements		34	—	10,513	10,548
5.3 Loans up to and including 1 year		51,917	2,045	5,907	59,870
5.4 Term/revolving loans		137,988	25,929	35,847	199,765
5.5 Instalment credit/hire-purchase/leases		2,708	275	212	3,195
5.6 Residential mortgages		109,752	96	1,199	111,048
5.7 Other mortgages		15,787	716	662	17,165
5.8 Other loans and securities issued to other residents		41,667	37,964	109,357	188,988
6. Holdings of securities		32,486	112,029	70,001	214,516
6.1 Issued by MFIs		24,489	56,346	38,661	119,496
6.2 Issued by general government		7,997	55,683	31,340	95,020
6.2.1 Exchequer notes		702	3,886	903	5,492
6.2.2 Securities		7,295	51,797	30,437	89,529
7. Holdings of shares and other equity		8,870	2,677	4,957	16,504
7.1 Issued by MFIs		3,112	764	1,848	5,724
7.2 Issued by other residents (non-MFI, non-Government entities)		5,758	1,913	3,109	10,780
8. Fixed assets		1,499	—	—	1,499
9. Remaining assets		22,951	8,953	23,250	55,154
<b>Total assets</b>		<b>617,885</b>	<b>257,205</b>	<b>440,369</b>	<b>1,315,458</b>

Table C3 — continued

€ million	30 November 2009			
Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>				
1. Capital and reserves	53,887 <sup>f</sup>	14,049	15,303	83,240 <sup>f</sup>
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	166,556	176,705	260,305	603,566
3. Deposits from Central Bank	77,984	—	—	77,984
3.1 Short-term	77,984	—	—	77,984
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	3,502	663	4,806	8,971
5. Deposits from other residents (non-MFIs, non-Government entities)	172,223	33,102	65,013	270,338
5.1 Overnight: Current accounts	35,186	392	8,540	44,117
Demand accounts	39,769	1,696	19,865	61,330
5.2 Agreed maturity: Up to and including 1 year	61,957	11,658	23,953	97,569
1 to 2 years	9,827	334	828	10,989
Over 2 years	9,936	18,444	2,906	31,286
5.3 Notice: Up to and including 3 months	15,539	128	725	16,392
Over 3 months	—	—	—	—
5.4 Repurchase agreements	8	450	8,197	8,654
6. Debt securities issued	51,340	28,753	99,505	179,598
6.1 Up to and including 1 year	4,555	5,491	33,689	43,735
6.2 1 to 2 years	12,805	2,007	14,596	29,409
6.3 Over 2 years	33,980	21,254	51,220	106,453
7. Remaining liabilities	36,775 <sup>f</sup>	7,273	35,186	79,234 <sup>f</sup>
<b>Total liabilities</b>	<b>562,267<sup>f</sup></b>	<b>260,544</b>	<b>480,120</b>	<b>1,302,931<sup>f</sup></b>
<b>Assets</b>				
1. Holdings of notes and coin	860	—	11	870
2. Loans to credit institutions and other MFIs (excluding Central Bank)	166,556	50,670	177,423	394,649
3. Balances with Central Bank	10,688	94	67	10,850
3.1 Mandatory balances	10,613	—	—	10,613
3.2 Other	75	94	67	237
4. Loans to general government (central, regional and local)	1,374	10,408	4,049	15,831
5. Loans to other residents (non-MFI, non-Government entities)	366,312 <sup>f</sup>	66,506	160,296	593,114 <sup>f</sup>
5.1 Overdrafts	8,921	32	374	9,328
5.2 Repurchase agreements	55	—	10,659	10,714
5.3 Loans up to and including 1 year	51,571	1,965	5,486	59,022
5.4 Term/revolving loans	136,309 <sup>f</sup>	26,045	35,236	197,590 <sup>f</sup>
5.5 Instalment credit/hire-purchase/leases	2,629	257	193	3,079
5.6 Residential mortgages	109,779	96	1,198	111,073
5.7 Other mortgages	15,796	703	634	17,132
5.8 Other loans and securities issued to other residents	41,252	37,408	106,517	185,177
6. Holdings of securities	32,731	108,966	68,392	210,088
6.1 Issued by MFIs	24,599	54,435	36,993	116,027
6.2 Issued by general government	8,132	54,531	31,399	94,061
6.2.1 Exchequer notes	867	2,449	914	4,230
6.2.2 Securities	7,264	52,082	30,484	89,830
7. Holdings of shares and other equity	8,874	2,464	4,921	16,259
7.1 Issued by MFIs	3,111	764	1,842	5,716
7.2 Issued by other residents (non-MFI, non-Government entities)	5,763	1,699	3,080	10,542
8. Fixed assets	1,506	—	—	1,506
9. Remaining assets	25,751	9,329	24,683	59,763
<b>Total assets</b>	<b>614,651<sup>f</sup></b>	<b>248,438</b>	<b>439,843</b>	<b>1,302,931<sup>f</sup></b>

Table C4: Credit Institutions: Retail Clearing: Aggregate Balance Sheet

€ million	30 September 2009			
	Irish residents	Other Monetary Union residents	Rest of World residents	Total
Vis-à-vis				
<b>Liabilities</b>				
1. Capital and reserves	27,426	9	3,987	31,422
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	97,757	8,426	132,644	238,826
3. Deposits from Central Bank	25,305	—	—	25,305
3.1 Short-term	25,305	—	—	25,305
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	2,315	13	3,506	5,835
5. Deposits from other residents (non-MFIs, non-Government entities)	112,094	3,641	22,783	138,519
5.1 Overnight: Current accounts	30,720	60	5,935	36,715
Demand accounts	26,445	210	3,812	30,467
5.2 Agreed maturity: Up to and including 1 year	33,393	3,188	10,186	46,766
1 to 2 years	4,481	137	396	5,015
Over 2 years	6,926	16	2,204	9,146
5.3 Notice: Up to and including 3 months	10,116	30	250	10,396
Over 3 months	—	—	—	—
5.4 Repurchase agreements	13	—	—	13
6. Debt securities issued	21,930	6,400	26,354	54,684
6.1 Up to and including 1 year	1,521	564	9,181	11,266
6.2 1 to 2 years	5,810	877	7,124	13,811
6.3 Over 2 years	14,599	4,959	10,049	29,607
7. Remaining liabilities	16,794	1,474	9,294	27,562
<b>Total liabilities</b>	<b>303,622</b>	<b>19,963</b>	<b>198,569</b>	<b>522,153</b>
<b>Assets</b>				
1. Holdings of notes and coin	993	—	15	1,008
2. Loans to credit institutions and other MFIs (excluding Central Bank)	97,783	1,750	99,346	198,879
3. Balances with Central Bank	6,512	—	—	6,512
3.1 Mandatory balances	6,512	—	—	6,512
3.2 Other	—	—	—	—
4. Loans to general government (central, regional and local)	478	—	3	481
5. Loans to other residents (non-MFI, non-Government entities)	205,486	6,013	32,026	243,525
5.1 Overdrafts	7,442	2	-2,940	4,504
5.2 Repurchase agreements	1	—	—	1
5.3 Loans up to and including 1 year	27,731	24	384	28,140
5.4 Term/revolving loans	93,642	3,180	7,758	104,580
5.5 Instalment credit/hire-purchase/leases	1,914	—	8	1,922
5.6 Residential mortgages	53,075	42	610	53,726
5.7 Other mortgages	4,372	1	15	4,388
5.8 Other loans and securities issued to other residents	17,308	2,764	26,192	46,264
6. Holdings of securities	9,685	17,767	16,001	43,453
6.1 Issued by MFIs	5,745	14,529	12,244	32,518
6.2 Issued by general government	3,941	3,237	3,758	10,935
6.2.1 Exchequer notes	—	—	—	—
6.2.2 Securities	3,941	3,237	3,758	10,935
7. Holdings of shares and other equity	2,341	611	1,888	4,840
7.1 Issued by MFIs	1,384	—	1,109	2,493
7.2 Issued by other residents (non-MFI, non-Government entities)	957	611	779	2,347
8. Fixed assets	932	—	—	932
9. Remaining assets	17,331	1,493	3,699	22,523
<b>Total assets</b>	<b>341,542</b>	<b>27,634</b>	<b>152,978</b>	<b>522,153</b>

Table C4 — continued

€ million	30 October 2009			
Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>				
1. Capital and reserves	25,614	—	4,472	30,085
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	97,569	8,681	126,920	233,169
3. Deposits from Central Bank	22,219	—	—	22,219
3.1 Short-term	22,219	—	—	22,219
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	2,250	112	4,030	6,392
5. Deposits from other residents (non-MFIs, non-Government entities)	113,298	3,941	22,021	139,260
5.1 Overnight: Current accounts	31,565	61	6,287	37,913
Demand accounts	26,951	222	3,799	30,972
5.2 Agreed maturity: Up to and including 1 year	32,890	3,476	8,950	45,317
1 to 2 years	4,423	136	538	5,098
Over 2 years	6,950	16	2,190	9,156
5.3 Notice: Up to and including 3 months	10,515	29	256	10,800
Over 3 months	—	—	—	—
5.4 Repurchase agreements	4	—	—	4
6. Debt securities issued	21,911	6,472	27,432	55,816
6.1 Up to and including 1 year	2,500	604	9,374	12,478
6.2 1 to 2 years	5,802	878	7,216	13,896
6.3 Over 2 years	13,610	4,990	10,842	29,442
7. Remaining liabilities	17,234	1,653	10,620	29,507
<b>Total liabilities</b>	<b>300,094</b>	<b>20,859</b>	<b>195,495</b>	<b>516,449</b>
<b>Assets</b>				
1. Holdings of notes and coin	894	—	10	904
2. Loans to credit institutions and other MFIs (excluding Central Bank)	97,586	1,542	100,703	199,831
3. Balances with Central Bank	5,162	—	—	5,162
3.1 Mandatory balances	5,162	—	—	5,162
3.2 Other	—	—	—	—
4. Loans to general government (central, regional and local)	502	—	3	505
5. Loans to other residents (non-MFI, non-Government entities)	204,006	6,075	31,724	241,806
5.1 Overdrafts	7,509	2	-3,183	4,327
5.2 Repurchase agreements	7	—	—	7
5.3 Loans up to and including 1 year	27,548	23	284	27,855
5.4 Term/revolving loans	92,491	3,274	7,897	103,662
5.5 Instalment credit/hire-purchase/leases	1,845	—	8	1,852
5.6 Residential mortgages	53,098	42	612	53,752
5.7 Other mortgages	4,306	1	15	4,322
5.8 Other loans and securities issued to other residents	17,203	2,734	26,093	46,029
6. Holdings of securities	9,365	16,823	15,055	41,242
6.1 Issued by MFIs	5,376	13,802	11,755	30,933
6.2 Issued by general government	3,988	3,021	3,300	10,309
6.2.1 Exchequer notes	—	—	—	—
6.2.2 Securities	3,988	3,021	3,300	10,309
7. Holdings of shares and other equity	2,483	622	1,898	5,003
7.1 Issued by MFIs	1,384	—	1,109	2,493
7.2 Issued by other residents (non-MFI, non-Government entities)	1,099	622	789	2,510
8. Fixed assets	924	—	—	924
9. Remaining assets	15,859	1,499	3,714	21,073
<b>Total assets</b>	<b>336,781</b>	<b>26,561</b>	<b>153,106</b>	<b>516,449</b>

Table C4 — continued

€ million	30 November 2009			
Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>				
1. Capital and reserves	26,749	—	4,416	31,165
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	96,493	8,872	135,708	241,072
3. Deposits from Central Bank	17,689	—	—	17,689
3.1 Short-term	17,689	—	—	17,689
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	2,518	12	3,411	5,942
5. Deposits from other residents (non-MFIs, non-Government entities)	111,884	3,436	16,874	132,194
5.1 Overnight: Current accounts	31,225	59	1,391	32,674
Demand accounts	27,333	195	4,142	31,670
5.2 Agreed maturity: Up to and including 1 year	30,942	3,006	8,319	42,267
1 to 2 years	4,439	125	536	5,100
Over 2 years	7,083	16	2,218	9,316
5.3 Notice: Up to and including 3 months	10,855	36	269	11,160
Over 3 months	—	—	—	—
5.4 Repurchase agreements	8	—	—	8
6. Debt securities issued	22,633	6,552	26,951	56,136
6.1 Up to and including 1 year	2,552	669	8,977	12,197
6.2 1 to 2 years	5,739	877	7,167	13,783
6.3 Over 2 years	14,343	5,006	10,806	30,155
7. Remaining liabilities	17,230	1,684	11,398	30,312
<b>Total liabilities</b>	<b>295,198</b>	<b>20,556</b>	<b>198,757</b>	<b>514,511</b>
<b>Assets</b>				
1. Holdings of notes and coin	816	—	8	824
2. Loans to credit institutions and other MFIs (excluding Central Bank)	95,913	1,553	97,956	195,422
3. Balances with Central Bank	5,490	—	—	5,490
3.1 Mandatory balances	5,490	—	—	5,490
3.2 Other	—	—	—	—
4. Loans to general government (central, regional and local)	427	—	3	430
5. Loans to other residents (non-MFI, non-Government entities)	202,872	6,061	34,189	243,122
5.1 Overdrafts	7,399	3	73	7,475
5.2 Repurchase agreements	27	—	—	27
5.3 Loans up to and including 1 year	27,324	23	283	27,630
5.4 Term/revolving loans	91,564	3,279	7,630	102,473
5.5 Instalment credit/hire-purchase/leases	1,786	—	7	1,794
5.6 Residential mortgages	53,207	42	611	53,859
5.7 Other mortgages	4,370	1	14	4,385
5.8 Other loans and securities issued to other residents	17,195	2,712	25,572	45,478
6. Holdings of securities	9,077	15,843	14,460	39,380
6.1 Issued by MFIs	5,167	13,145	11,357	29,669
6.2 Issued by general government	3,910	2,698	3,103	9,711
6.2.1 Exchequer notes	—	—	—	—
6.2.2 Securities	3,910	2,698	3,103	9,711
7. Holdings of shares and other equity	2,491	610	1,897	4,997
7.1 Issued by MFIs	1,384	—	1,109	2,493
7.2 Issued by other residents (non-MFI, non-Government entities)	1,106	610	788	2,504
8. Fixed assets	925	—	—	925
9. Remaining assets	18,199	1,692	4,030	23,921
<b>Total assets</b>	<b>336,210</b>	<b>25,758</b>	<b>152,544</b>	<b>514,511</b>



Table C5: Credit Institutions: Non-Clearing with Predominantly Domestic Business: Aggregate Balance Sheet

€ million	30 September 2009			
	Irish residents	Other Monetary Union residents	Rest of World residents	Total
Vis-à-vis				
<b>Liabilities</b>				
1. Capital and reserves	12,425	6,151	4,375	22,951
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	44,673	85,736	79,906	210,315
3. Deposits from Central Bank	50,454	—	—	50,454
3.1 Short-term	50,454	—	—	50,454
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	1,009	40	851	1,900
5. Deposits from other residents (non-MFIs, non-Government entities)	50,865	4,890	20,560	76,315
5.1 Overnight: Current accounts	2,891	125	135	3,151
Demand accounts	10,054	231	5,467	15,752
5.2 Agreed maturity: Up to and including 1 year	25,846	2,839	6,040 <sup>r</sup>	34,724 <sup>r</sup>
1 to 2 years	4,828	113	180	5,122
Over 2 years	2,655	1,510	430	4,595
5.3 Notice: Up to and including 3 months	4,591	71	261 <sup>r</sup>	4,924 <sup>r</sup>
Over 3 months	1	—	—	1
5.4 Repurchase agreements	—	—	8,047	8,047
6. Debt securities issued	16,779	7,485	23,577	47,841
6.1 Up to and including 1 year	1,109	1,556	4,749	7,414
6.2 1 to 2 years	7,874	381	5,808	14,063
6.3 Over 2 years	7,797	5,548	13,019	26,364
7. Remaining liabilities	14,725	1,817	6,552	23,094
<b>Total liabilities</b>	<b>190,930</b>	<b>106,119</b>	<b>135,822</b>	<b>432,871</b>
<b>Assets</b>				
1. Holdings of notes and coin	76	—	2	78
2. Loans to credit institutions and other MFIs (excluding Central Bank)	49,292	14,346	45,184	108,822
3. Balances with Central Bank Bank)	1,369	12	25	1,406
3.1 Mandatory balances	1,369	—	—	1,369
3.2 Other	—	12	25	37
4. Loans to general government (central, regional and local)	185	1,205	331	1,721
5. Loans to other residents (non-MFI, non-Government entities)	150,016	12,377	59,188	221,580
5.1 Overdrafts	1,424	1	271	1,696
5.2 Repurchase agreements	—	—	—	—
5.3 Loans up to and including 1 year	17,193	820	2,998	21,012
5.4 Term/revolving loans	42,206	2,927	18,562	63,694
5.5 Instalment credit/hire-purchase/leases	876	—	9	886
5.6 Residential mortgages	56,689	54	587	57,330
5.7 Other mortgages	11,828	741	707	13,276
5.8 Other loans and securities issued to other residents	19,800	7,834	36,053	63,688
6. Holdings of securities	22,245	37,401	16,962	76,609
6.1 Issued by MFIs	18,457	8,098	6,518	33,072
6.2 Issued by general government	3,789	29,303	10,444	43,536
6.2.1 Exchequer notes	602	—	—	602
6.2.2 Securities	3,186	29,303	10,444	42,934
7. Holdings of shares and other equity	6,352	630	1,630	8,611
7.1 Issued by MFIs	1,737	630	169	2,535
7.2 Issued by other residents (non-MFI, non-Government entities)	4,615	—	1,461	6,076
8. Fixed assets	536	—	—	536
9. Remaining assets	5,603	2,203	5,700	13,507
<b>Total assets</b>	<b>235,675</b>	<b>68,174</b>	<b>129,022</b>	<b>432,871</b>

Table C5 — continued

€ million	30 October 2009				
	Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>					
1. Capital and reserves		11,819	5,955	4,383	22,158
2. Deposits from credit institutions and other MFIs (excluding Central Bank)		45,558	83,783	81,393	210,734
3. Deposits from Central Bank		53,710	—	—	53,710
3.1 Short-term		53,710	—	—	53,710
3.2 Other		—	—	—	—
4. Deposits from general government (central, regional and local)		1,010	109	912	2,032
5. Deposits from other residents (non-MFIs, non-Government entities)		52,301	4,684	20,777	77,762
5.1 Overnight: Current accounts		3,021	116	84	3,221
Demand accounts		10,154	231	5,591	15,975
5.2 Agreed maturity: Up to and including 1 year		26,938	2,647	7,107	36,692
1 to 2 years		5,007	113	176	5,296
Over 2 years		2,620	1,510	189	4,319
5.3 Notice: Up to and including 3 months		4,560	67	254	4,881
Over 3 months		—	—	—	—
5.4 Repurchase agreements		—	—	7,377	7,377
6. Debt securities issued		15,904	6,639	23,788	46,330
6.1 Up to and including 1 year		1,111	1,088	5,632	7,830
6.2 1 to 2 years		7,070	359	5,780	13,210
6.3 Over 2 years		7,722	5,192	12,376	25,290
7. Remaining liabilities		11,854	1,783	6,857	20,493
<b>Total liabilities</b>		<b>192,156</b>	<b>102,953</b>	<b>138,111</b>	<b>433,219</b>
<b>Assets</b>					
1. Holdings of notes and coin		73	—	3	76
2. Loans to credit institutions and other MFIs (excluding Central Bank)		48,362	16,506	45,619	110,487
3. Balances with Central Bank		3,616	12	25	3,652
3.1 Mandatory balances		1,974	—	—	1,974
3.2 Other		1,641	12	25	1,678
4. Loans to general government (central, regional and local)		185	1,205	349	1,740
5. Loans to other residents (non-MFI, non-Government entities)		148,831	12,236	59,135	220,202
5.1 Overdrafts		1,437	4	11	1,453
5.2 Repurchase agreements		—	—	—	—
5.3 Loans up to and including 1 year		17,398	842	2,961	21,201
5.4 Term/revolving loans		41,455	2,919	18,792	63,166
5.5 Instalment credit/hire-purchase/leases		857	—	9	866
5.6 Residential mortgages		56,654	54	588	57,296
5.7 Other mortgages		11,481	672	648	12,801
5.8 Other loans and securities issued to other residents		19,550	7,745	36,126	63,420
6. Holdings of securities		21,297	37,351	16,796	75,443
6.1 Issued by MFIs		17,581	8,062	6,477	32,120
6.2 Issued by general government		3,716	29,289	10,319	43,323
6.2.1 Exchequer notes		552	—	—	552
6.2.2 Securities		3,163	29,289	10,319	42,771
7. Holdings of shares and other equity		6,345	630	1,612	8,587
7.1 Issued by MFIs		1,728	630	171	2,529
7.2 Issued by other residents (non-MFI, non-Government entities)		4,617	—	1,441	6,058
8. Fixed assets		530	—	—	530
9. Remaining assets		4,419	2,236	5,847	12,502
<b>Total assets</b>		<b>233,658</b>	<b>70,175</b>	<b>129,386</b>	<b>433,219</b>

Table C5 — continued

€ million	30 November 2009			
Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>				
1. Capital and reserves	11,070 <sup>f</sup>	6,235	4,390	21,695 <sup>f</sup>
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	44,363	81,830	83,013	209,207
3. Deposits from Central Bank	50,010	—	—	50,010
3.1 Short-term	50,010	—	—	50,010
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	984	224	1,054	2,263
5. Deposits from other residents (non-MFIs, non-Government entities)	53,337	4,221	19,419	76,977
5.1 Overnight: Current accounts	2,913	115	83	3,111
Demand accounts	10,345	234	5,494	16,073
5.2 Agreed maturity: Up to and including 1 year	27,501	2,323	5,874	35,699
1 to 2 years	5,336	93	179	5,608
Over 2 years	2,628	1,390	211	4,229
5.3 Notice: Up to and including 3 months	4,613	65	263	4,941
Over 3 months	—	—	—	—
5.4 Repurchase agreements	—	—	7,314	7,314
6. Debt securities issued	16,706	7,778	23,871	48,355
6.1 Up to and including 1 year	1,333	2,048	5,732	9,113
6.2 1 to 2 years	7,067	359	5,772	13,197
6.3 Over 2 years	8,306	5,371	12,368	26,045
7. Remaining liabilities	13,747	1,928	6,817	22,491 <sup>f</sup>
<b>Total liabilities</b>	<b>190,217<sup>f</sup></b>	<b>102,216</b>	<b>138,564</b>	<b>430,997<sup>f</sup></b>
<b>Assets</b>				
1. Holdings of notes and coin	44	—	2	46
2. Loans to credit institutions and other MFIs (excluding Central Bank)	46,376	14,248	48,004	108,629
3. Balances with Central Bank	2,014	12	67	2,093
3.1 Mandatory balances	1,939	—	—	1,939
3.2 Other	75	12	67	154
4. Loans to general government (central, regional and local)	202	1,147	362	1,711
5. Loans to other residents (non-MFI, non-Government entities)	148,001 <sup>f</sup>	12,262	58,840	219,103 <sup>f</sup>
5.1 Overdrafts	1,469	1	13	1,483
5.2 Repurchase agreements	—	—	—	—
5.3 Loans up to and including 1 year	17,429	865	2,707	21,001
5.4 Term/revolving loans	40,789 <sup>f</sup>	2,910	19,064	62,763 <sup>f</sup>
5.5 Instalment credit/hire-purchase/leases	836	—	9	845
5.6 Residential mortgages	56,572	54	588	57,214
5.7 Other mortgages	11,426	659	620	12,704
5.8 Other loans and securities issued to other residents	19,481	7,772	35,840	63,093
6. Holdings of securities	21,875	38,003	17,147	77,026
6.1 Issued by MFIs	17,947	8,041	6,554	32,542
6.2 Issued by general government	3,928	29,962	10,593	44,484
6.6.6 Exchequer notes	717	—	15	732
6.6.6 Securities	3,211	29,962	10,579	43,751
7. Holdings of shares and other equity	6,341	630	1,581	8,552
7.1 Issued by MFIs	1,726	630	168	2,524
7.2 Issued by other residents (non-MFI, non-Government entities)	4,615	—	1,413	6,028
8. Fixed assets	519	—	—	519
9. Remaining assets	4,883	2,407	6,029	13,318
<b>Total assets</b>	<b>230,255<sup>f</sup></b>	<b>68,708</b>	<b>132,033</b>	<b>430,997<sup>f</sup></b>

**Table C6: Credit Institutions: Non-Clearing with Predominantly Foreign Business: Aggregate Balance Sheet**

€ million	30 September 2009			
Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>				
1. Capital and reserves	15,058	7,642	6,623	29,323
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	27,491	89,328	41,073	157,892
3. Deposits from Central Bank	12,580	—	—	12,580
3.1 Short-term	12,580	—	—	12,580
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	—	796	453	1,248
5. Deposits from other residents (non-MFIs, non-Government entities)	7,410	25,649	31,334	64,393
5.1 Overnight: Current accounts	780	484	8,421	9,684
Demand accounts	2,245	1,053	10,543	13,841
5.2 Agreed maturity: Up to and including 1 year	3,999	6,784	10,135	20,918
1 to 2 years	62	106	808	976
Over 2 years	251	17,192	574	18,017
5.3 Notice: Up to and including 3 months	73	30	197	300
Over 3 months	—	—	—	—
5.4 Repurchase agreements	—	—	657	657
6. Debt securities issued	11,956	14,558	50,986	77,500
6.1 Up to and including 1 year	708	4,121	17,427	22,256
6.2 1 to 2 years	—	461	1,808	2,268
6.3 Over 2 years	11,247	9,976	31,752	52,976
7. Remaining liabilities	5,904	3,820	17,999	27,722
<b>Total liabilities</b>	<b>80,398</b>	<b>141,792</b>	<b>148,469</b>	<b>370,658</b>
<b>Assets</b>				
1. Holdings of notes and coin	—	—	—	—
2. Loans to credit institutions and other MFIs (excluding Central Bank)	22,845	38,153	33,348	94,347
3. Balances with Central Bank	2,296	85	—	2,381
3.1 Mandatory balances	2,296	—	—	2,296
3.2 Other	—	85	—	85
4. Loans to general government (central, regional and local)	746	9,572	3,696	14,014
5. Loans to other residents (non-MFI, non-Government entities)	16,133	49,026	70,094	135,253
5.1 Overdrafts	55	47	198	300
5.2 Repurchase agreements	28	—	10,444	10,472
5.3 Loans up to and including 1 year	7,215	1,282	2,821	11,317
5.4 Term/revolving loans	3,903	19,806	9,568	33,276
5.5 Instalment credit/hire-purchase/leases	6	242	181	429
5.6 Residential mortgages	—	—	—	—
5.7 Other mortgages	—	43	—	43
5.8 Other loans and securities issued to other residents	4,926	27,605	46,883	79,415
6. Holdings of securities	1,943	58,918	38,045	98,906
6.1 Issued by MFIs	1,649	34,702	20,105	56,456
6.2 Issued by general government	294	24,216	17,941	42,450
6.2.1 Exchequer notes	150	4,786	915	5,851
6.2.2 Securities	144	19,430	17,025	36,599
7. Holdings of shares and other equity	41	1,104	1,027	2,173
7.1 Issued by MFIs	—	18	149	166
7.2 Issued by other residents (non-MFI, non-Government entities)	41	1,086	878	2,006
8. Fixed assets	40	—	—	40
9. Remaining assets	2,380	5,307	15,858	23,545
<b>Total assets</b>	<b>46,424</b>	<b>162,165</b>	<b>162,069</b>	<b>370,658</b>

Table C6 — continued

€ million	30 October 2009			
Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>				
1. Capital and reserves	17,223	7,863	6,581	31,667
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	26,084	87,209	42,926	156,219
3. Deposits from Central Bank	11,475	—	—	11,475
3.1 Short-term	11,475	—	—	11,475
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	2	866	377	1,245
5. Deposits from other residents (non-MFIs, non-Government entities)	7,286	25,878	30,183	63,348
5.1 Overnight: Current accounts	843	287	7,884	9,013
Demand accounts	2,312	1,073	10,550	13,935
5.2 Agreed maturity: Up to and including 1 year	3,744	6,985	9,326	20,055
1 to 2 years	62	116	806	984
Over 2 years	254	17,100	497	17,851
5.3 Notice: Up to and including 3 months	72	17	386	474
Over 3 months	—	—	—	—
5.4 Repurchase agreements	—	300	735	1,035
6. Debt securities issued	11,962	14,747	50,835	77,543
6.1 Up to and including 1 year	717	4,234	17,594	22,544
6.2 1 to 2 years	—	461	1,651	2,112
6.3 Over 2 years	11,245	10,052	31,590	52,887
7. Remaining liabilities	4,567	3,664	16,063	24,293
<b>Total liabilities</b>	<b>78,599</b>	<b>140,226</b>	<b>146,965</b>	<b>365,791</b>
<b>Assets</b>				
1. Holdings of notes and coin	—	—	—	—
2. Loans to credit institutions and other MFIs (excluding Central Bank)	23,262	37,632	31,014	91,908
3. Balances with Central Bank	2,836	84	—	2,919
3.1 Mandatory balances	2,727	—	—	2,727
3.2 Other	108	84	—	192
4. Loans to general government (central, regional and local)	745	9,491	3,737	13,974
5. Loans to other residents (non-MFI, non-Government entities)	16,018	48,763	69,839	134,620
5.1 Overdrafts	56	43	171	269
5.2 Repurchase agreements	28	—	10,513	10,541
5.3 Loans up to and including 1 year	6,971	1,181	2,663	10,814
5.4 Term/revolving loans	4,042	19,737	9,159	32,937
5.5 Instalment credit/hire-purchase/leases	6	275	195	477
5.6 Residential mortgages	—	—	—	—
5.7 Other mortgages	—	43	—	43
5.8 Other loans and securities issued to other residents	4,915	27,485	47,139	79,539
6. Holdings of securities	1,825	57,856	38,150	97,831
6.1 Issued by MFIs	1,532	34,483	20,428	56,443
6.2 Issued by general government	293	23,373	17,722	41,388
6.2.1 Exchequer notes	150	3,886	903	4,939
6.2.2 Securities	143	19,487	16,819	36,449
7. Holdings of shares and other equity	42	1,426	1,447	2,915
7.1 Issued by MFIs	—	135	568	702
7.2 Issued by other residents (non-MFI, non-Government entities)	42	1,291	880	2,212
8. Fixed assets	45	—	—	45
9. Remaining assets	2,673	5,218	13,689	21,579
<b>Total assets</b>	<b>47,446</b>	<b>160,469</b>	<b>157,876</b>	<b>365,791</b>

Table C6 — continued

€ million	30 November 2009			
Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>				
1. Capital and reserves	16,067	7,814	6,498	30,379
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	25,700	86,003	41,584	153,287
3. Deposits from Central Bank	10,285	—	—	10,285
3.1 Short-term	10,285	—	—	10,285
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	—	426	341	767
5. Deposits from other residents (non-MFIs, non-Government entities)	7,002	25,445	28,721	61,167
5.1 Overnight: Current accounts	1,047	219	7,066	8,332
Demand accounts	2,091	1,266	10,229	13,587
5.2 Agreed maturity: Up to and including 1 year	3,514	6,329	9,760	19,603
1 to 2 years	52	116	113	281
Over 2 years	225	17,038	478	17,741
5.3 Notice: Up to and including 3 months	71	27	192	291
Over 3 months	—	—	—	—
5.4 Repurchase agreements	—	450	883	1,333
6. Debt securities issued	12,001	14,423	48,684	75,107
6.1 Up to and including 1 year	671	2,774	18,981	22,426
6.2 1 to 2 years	—	771	1,657	2,428
6.3 Over 2 years	11,330	10,877	28,046	50,253
7. Remaining liabilities	5,798	3,662	16,971	26,431
<b>Total liabilities</b>	<b>76,853</b>	<b>137,772</b>	<b>142,798</b>	<b>357,423</b>
<b>Assets</b>				
1. Holdings of notes and coin	—	—	—	—
2. Loans to credit institutions and other MFIs (excluding Central Bank)	24,267	34,869	31,463	90,598
3. Balances with Central Bank	3,184	83	—	3,267
3.1 Mandatory balances	3,184	—	—	3,184
3.2 Other	—	83	—	83
4. Loans to general government (central, regional and local)	744	9,261	3,684	13,690
5. Loans to other residents (non-MFI, non-Government entities)	15,439	48,184	67,267	130,890
5.1 Overdrafts	54	28	289	370
5.2 Repurchase agreements	29	—	10,659	10,688
5.3 Loans up to and including 1 year	6,818	1,077	2,496	10,391
5.4 Term/revolving loans	3,956	19,856	8,542	32,353
5.5 Instalment credit/hire-purchase/leases	6	256	177	439
5.6 Residential mortgages	—	—	—	—
5.7 Other mortgages	—	43	—	43
5.8 Other loans and securities issued to other residents	4,576	26,924	45,105	76,605
6. Holdings of securities	1,778	55,120	36,784	93,682
6.1 Issued by MFIs	1,485	33,250	19,082	53,816
6.2 Issued by general government	293	21,871	17,702	39,866
6.6.6 Exchequer notes	150	2,449	900	3,498
6.6.6 Securities	143	19,422	16,803	36,368
7. Holdings of shares and other equity	42	1,224	1,443	2,710
7.1 Issued by MFIs	—	135	565	699
7.2 Issued by other residents (non-MFI, non-Government entities)	42	1,090	879	2,010
8. Fixed assets	62	—	—	62
9. Remaining assets	2,669	5,231	14,625	22,524
<b>Total assets</b>	<b>48,186</b>	<b>153,972</b>	<b>155,266</b>	<b>357,423</b>

Table C7: Credit Institutions: Mortgage Lenders: Aggregate Balance Sheet

€ million	30 September 2009			
	Irish residents	Other Monetary Union residents	Rest of World residents	Total
Vis-à-vis				
<b>Liabilities</b>				
1. Capital and reserves	35,684	2,984	6,040	44,709
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	125,615	18,803	161,559	305,977
3. Deposits from Central Bank	43,855	—	—	43,855
3.1 Short-term	43,855	—	—	43,855
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	3,006	36	3,900	6,942
5. Deposits from other residents (non-MFIs, non-Government entities)	147,530	6,434	31,123	185,088
5.1 Overnight: Current accounts	33,071	65	5,968	39,105
Demand accounts	32,721	224	8,966	41,910
5.2 Agreed maturity: Up to and including 1 year	49,442	4,450	12,839	66,731
1 to 2 years	8,939	168	524	9,630
Over 2 years	9,349	1,485	2,434	13,267
5.3 Notice: Up to and including 3 months	13,995	43	393	14,431
Over 3 months	1	—	—	1
5.4 Repurchase agreements	13	—	—	13
6. Debt securities issued	38,660	10,822	33,168	82,649
6.1 Up to and including 1 year	2,602	1,015	11,786	15,403
6.2 1 to 2 years	13,683	1,197	7,261	22,142
6.3 Over 2 years	22,375	8,610	14,120	45,105
7. Remaining liabilities	19,286	1,674	9,868	30,828
<b>Total liabilities</b>	<b>413,637</b>	<b>40,753</b>	<b>245,658</b>	<b>700,048</b>
<b>Assets</b>				
1. Holdings of notes and coin	1,067	—	17	1,085
2. Loans to credit institutions and other MFIs (excluding Central Bank)	112,426	2,004	107,818	222,248
3. Balances with Central Bank	7,576	—	—	7,576
3.1 Mandatory balances	7,576	—	—	7,576
3.2 Other	—	—	—	—
4. Loans to general government (central, regional and local)	588	—	3	591
5. Loans to other residents (non-MFI, non-Government entities)	321,448	7,383	47,364	376,196
5.1 Overdrafts	8,730	2	-2,938	5,795
5.2 Repurchase agreements	1	—	—	1
5.3 Loans up to and including 1 year	30,212	113	517	30,841
5.4 Term/revolving loans	118,122	3,519	10,579	132,219
5.5 Instalment credit/hire-purchase/leases	2,671	—	17	2,688
5.6 Residential mortgages	109,594	74	1,196	110,863
5.7 Other mortgages	16,200	742	721	17,663
5.8 Other loans and securities issued to other residents	35,917	2,934	37,273	76,124
6. Holdings of securities	17,675	20,264	18,014	55,953
6.1 Issued by MFIs	11,100	16,126	14,188	41,413
6.2 Issued by general government	6,575	4,138	3,826	14,539
6.2.1 Exchequer notes	592	—	—	592
6.2.2 Securities	5,983	4,138	3,826	13,947
7. Holdings of shares and other equity	6,936	612	1,934	9,482
7.1 Issued by MFIs	1,681	1	1,129	2,811
7.2 Issued by other residents (non-MFI, non-Government entities)	5,255	611	805	6,671
8. Fixed assets	1,439	—	—	1,439
9. Remaining assets	19,496	1,595	4,387	25,478
<b>Total assets</b>	<b>488,653</b>	<b>31,858</b>	<b>179,537</b>	<b>700,048</b>

Table C7 — continued

€ million	30 October 2009				
	Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>					
1. Capital and reserves		33,372	2,839	6,522	42,733
2. Deposits from credit institutions and other MFIs (excluding Central Bank)		127,636	17,838	155,097	300,571
3. Deposits from Central Bank		41,789	—	—	41,789
3.1 Short-term		41,789	—	—	41,789
3.2 Other		—	—	—	—
4. Deposits from general government (central, regional and local)		2,951	204	4,447	7,603
5. Deposits from other residents (non-MFIs, non-Government entities)		150,035	6,618	30,246	186,899
5.1 Overnight: Current accounts		34,021	67	6,321	40,409
Demand accounts		33,266	234	9,021	42,521
5.2 Agreed maturity: Up to and including 1 year		49,976	4,622	11,539	66,138
1 to 2 years		9,031	167	663	9,861
Over 2 years		9,335	1,485	2,302	13,122
5.3 Notice: Up to and including 3 months		14,401	43	401	14,844
Over 3 months		—	—	—	—
5.4 Repurchase agreements		4	—	—	4
6. Debt securities issued		37,778	10,814	34,309	82,901
6.1 Up to and including 1 year		3,594	1,315	12,342	17,251
6.2 1 to 2 years		12,872	1,198	7,351	21,422
6.3 Over 2 years		21,312	8,302	14,615	44,229
7. Remaining liabilities		19,518	1,842	11,280	32,641
<b>Total liabilities</b>		<b>413,079</b>	<b>40,156</b>	<b>241,903</b>	<b>695,137</b>
<b>Assets</b>					
1. Holdings of notes and coin		963	—	13	976
2. Loans to credit institutions and other MFIs (excluding Central Bank)		113,637	2,111	109,097	224,845
3. Balances with Central Bank		7,331	—	—	7,331
3.1 Mandatory balances		6,281	—	—	6,281
3.2 Other		1,050	—	—	1,050
4. Loans to general government (central, regional and local)		612	—	3	615
5. Loans to other residents (non-MFI, non-Government entities)		319,183	7,379	47,203	373,764
5.1 Overdrafts		8,800	2	-3,181	5,621
5.2 Repurchase agreements		7	—	—	7
5.3 Loans up to and including 1 year		30,004	113	420	30,537
5.4 Term/revolving loans		116,703	3,616	10,735	131,054
5.5 Instalment credit/hire-purchase/leases		2,585	—	17	2,602
5.6 Residential mortgages		109,587	74	1,198	110,859
5.7 Other mortgages		15,787	673	662	17,122
5.8 Other loans and securities issued to other residents		35,710	2,901	37,351	75,962
6. Holdings of securities		16,453	19,323	17,017	52,792
6.1 Issued by MFIs		9,855	15,401	13,650	38,905
6.2 Issued by general government		6,598	3,922	3,367	13,887
6.2.1 Exchequer notes		542	—	—	542
6.2.2 Securities		6,055	3,922	3,367	13,344
7. Holdings of shares and other equity		7,070	623	1,944	9,637
7.1 Issued by MFIs		1,672	1	1,129	2,802
7.2 Issued by other residents (non-MFI, non-Government entities)		5,398	622	815	6,835
8. Fixed assets		1,427	—	—	1,427
9. Remaining assets		17,577	1,604	4,569	23,749
<b>Total assets</b>		<b>484,252</b>	<b>31,039</b>	<b>179,845</b>	<b>695,137</b>



Table C7 — continued

€ million	30 November 2009			
Vis-à-vis	Irish residents	Other Monetary Union residents	Rest of World residents	Total
<b>Liabilities</b>				
1. Capital and reserves	34,423 <sup>f</sup>	2,747	6,472	43,642 <sup>f</sup>
2. Deposits from credit institutions and other MFIs (excluding Central Bank)	127,051	18,396	164,148	309,596
3. Deposits from Central Bank	34,059	—	—	34,059
3.1 Short-term	34,059	—	—	34,059
3.2 Other	—	—	—	—
4. Deposits from general government (central, regional and local)	3,196	28	3,851	7,075
5. Deposits from other residents (non-MFIs, non-Government entities)	149,416	5,993	24,161	179,569
5.1 Overnight: Current accounts	33,581	64	1,424	35,069
Demand accounts	33,631	209	9,231	43,072
5.2 Agreed maturity: Up to and including 1 year	48,500	4,170	10,091	62,761
1 to 2 years	9,411	135	663	10,209
Over 2 years	9,479	1,365	2,330	13,174
5.3 Notice: Up to and including 3 months	14,804	49	422	15,276
Over 3 months	—	—	—	—
5.4 Repurchase agreements	8	—	—	8
6. Debt securities issued	39,303	11,434	34,064	84,801
6.1 Up to and including 1 year	3,872	1,741	12,126	17,740
6.2 1 to 2 years	12,805	1,197	7,301	21,303
6.3 Over 2 years	22,626	8,495	14,637	45,758
7. Remaining liabilities	19,101 <sup>f</sup>	1,942	12,095	33,137 <sup>f</sup>
<b>Total liabilities</b>	<b>406,550<sup>f</sup></b>	<b>40,540</b>	<b>244,790</b>	<b>691,879<sup>f</sup></b>
<b>Assets</b>				
1. Holdings of notes and coin	856	—	11	867
2. Loans to credit institutions and other MFIs (excluding Central Bank)	110,247	2,375	106,198	218,820
3. Balances with Central Bank	6,756	—	—	6,756
3.1 Mandatory balances	6,681	—	—	6,681
3.2 Other	75	—	—	75
4. Loans to general government (central, regional and local)	554	—	3	557
5. Loans to other residents (non-MFI, non-Government entities)	317,913 <sup>f</sup>	7,345	49,340	374,598 <sup>f</sup>
5.1 Overdrafts	8,715	3	75	8,793
5.2 Repurchase agreements	27	—	—	27
5.3 Loans up to and including 1 year	29,935	112	392	30,438
5.4 Term/revolving loans	115,679 <sup>f</sup>	3,617	10,451	129,747 <sup>f</sup>
5.5 Instalment credit/hire-purchase/leases	2,511	—	16	2,527
5.6 Residential mortgages	109,621	74	1,197	110,892
5.7 Other mortgages	15,796	660	634	17,089
5.8 Other loans and securities issued to other residents	35,631	2,879	36,575	75,084
6. Holdings of securities	16,751	19,028	16,411	52,190
6.1 Issued by MFIs	10,015	14,743	13,242	38,000
6.2 Issued by general government	6,736	4,285	3,169	14,190
6.6.6 Exchequer notes	707	—	—	707
6.6.6 Securities	6,029	4,285	3,169	13,483
7. Holdings of shares and other equity	7,075	611	1,943	9,628
7.1 Issued by MFIs	1,670	1	1,129	2,800
7.2 Issued by other residents (non-MFI, non-Government entities)	5,404	610	814	6,828
8. Fixed assets	1,418	—	—	1,418
9. Remaining assets	20,327	1,812	4,905	27,045
<b>Total assets</b>	<b>481,897<sup>f</sup></b>	<b>31,172</b>	<b>178,811</b>	<b>691,879<sup>f</sup></b>

Table C8: All Credit Institutions: Sectoral Distribution of Advances

€ million	Resident Non-Government Credit	
	June 2009	September 2009
<b>1. Agriculture and forestry</b>	5,341	5,210
1.1 Farming of cattle and other animals	1,990	1,948
1.2 Dairy farming	1,282	1,266
1.3 Other agricultural activities	1,812	1,746
1.4 Forestry and logging	257	251
<b>2. Fishing</b>	381	374
<b>3. Mining and quarrying</b>	441	454
<b>4. Manufacturing</b>	7,821	7,550
4.1 Food products derived from agricultural activities	2,712	2,632
4.1.1 Processing of meat	589	546
4.1.2 Processing of dairy products and other food products	2,123	2,085
4.2 Food (non-agricultural activities)/beverages/tobacco	611	672
4.3 Textiles, textile products, leather and leather products	96	86
4.4 Wood, pulp, paper products, publishing/printing	1,344	1,129
4.5 Chemicals, man-made fibres, rubber/plastic products	519	585
4.6 Machinery/equipment	729	684
4.7 Computers and office machinery	32	53
4.8 Other manufacturing	1,777	1,709
<b>5. Electricity, gas and water supply</b>	1,015	1,100
<b>6. Construction</b>	19,002	16,603
<b>7. Wholesale/retail trade &amp; repairs</b>	13,236	12,965
7.1 Sale/maintenance/repair of vehicles; retail sale of fuel	2,156	2,110
7.2 Wholesale/commission trade (except vehicles)	2,971	2,930
7.3 Retail trade/repair of personal/household goods	6,775	6,659
7.4 Other wholesale/retail, not included elsewhere	1,334	1,266
<b>8. Hotels and restaurants</b>	11,295	11,214
8.1 Hotels	6,604	6,608
8.2 Restaurants	779	758
8.3 Public Houses	3,362	3,278
8.4 Other accommodation and catering	551	570
<b>9. Transport, storage and communications</b>	3,283	3,225

Table C8 — continued

€ million	Resident Non-Government Credit	
	June 2009	September 2009
<b>10. Financial intermediation</b>	86,181	86,206
10.1 Financial leasing	1,962	1,874
10.2 Non-bank credit grantors, including credit unions	14,190	13,276
10.3 Investment and unit trusts	365	309
10.4 Holding companies	1,368	1,422
10.5 Hire-purchase finance companies	1,312	1,170
10.6 Life insurance companies	3,585	3,758
10.7 Pension funds	257	240
10.8 Non-life insurance companies	585	589
10.9 Security broker/Fund management	9,646	8,846
10.10 Other financial intermediation	52,911	54,721
<b>11. Real estate and business activities</b>	95,563	95,146
11.1 Real estate activities	89,401	88,050
11.2 Computer and related services	202	199
11.3 Research and development	35	34
11.4 Legal, accounting and consulting	1,989	1,844
11.5 Advertising	56	58
11.6 Other business activities	3,879	4,962
<b>12. Education (Schools and Colleges)</b>	823	856
<b>13. Health and social work</b>	2,638	2,660
<b>14. Other Community, Social &amp; Personal Services</b>	2,926	2,843
14.1 Recreational, cultural, sporting and other service activities	2,752	2,667
14.2 Churches/religious organisations and charities	174	176
<b>15. Personal (private households) and charities</b>	136,446	130,842
15.1 House mortgage finance	113,860	109,764
15.1.1 Principal dwelling houses	81,939	78,615
15.1.2 Buy-to-Let residential properties	30,667	30,045
15.1.3 Holiday homes/second houses	1,254	1,104
15.2 Other housing finance	718	644
15.3 Finance for investment	2,659	2,796
15.4 Other personal	19,210	17,638
<b>Total</b>	<b>386,390</b>	<b>377,248</b>

**Table C9: Credit Institutions: Sectoral Distribution of Advances and Deposits**

€ million	June 2009		
	Non-resident non-Government credit	Non-resident non-Government deposits	Resident non-Government deposits
1. Agriculture and Forestry	261	55	2,342
2. Fishing	6	1	104
3. Mining and quarrying	635	169	439
4. Manufacturing	7,507	3,130	5,322
5. Electricity, gas and water supply	9,481	1,173	1,250
6. Construction	3,652	545	3,274
7. Wholesale/retail trade & repairs	1,883	1,865	4,187
8. Hotels and restaurants	1,573	95	680
9. Transport, storage and communications	18,770	1,943	3,936
10. Financial intermediation	166,944	87,900	44,559
11. Real estate and business activities	24,063	3,389	14,970
12. Education (Schools and Colleges)	1,612	121	1,725
13. Health and social work	3,265	96	938
14. Other Community, Social & Personal Services	1,253	1,033	4,903
15. Personal (private households)	4,395	5,128	82,799
<b>Total</b>	<b>245,300</b>	<b>106,644</b>	<b>171,428</b>

€ million	September 2009		
	Non-resident non-Government credit	Non-resident non-Government deposits	Resident non-Government deposits
1. Agriculture and Forestry	236	31	2,329
2. Fishing	5	0	97
3. Mining and quarrying	586	204	397
4. Manufacturing	6,315	2,882	5,963
5. Electricity, gas and water supply	9,113	1,468	997
6. Construction	3,438	507	3,454
7. Wholesale/retail trade & repairs	1,883	2,422	4,048
8. Hotels and restaurants	1,343	165	702
9. Transport, storage and communications	18,427	1,878	3,938
10. Financial intermediation	158,099	90,185	45,245
11. Real estate and business activities	23,826	3,505	14,940
12. Education (Schools and Colleges)	1,561	62	1,675
13. Health and social work	2,891	124	996
14. Other Community, Social & Personal Services	1,194	1,318	4,826
15. Personal (private households)	4,621	4,109	80,804
<b>Total</b>	<b>233,540</b>	<b>108,858</b>	<b>170,411</b>

Table C10: All Credit Institutions: International Business: Analysis by Currency, Sector and Maturity

€ million	30 June 2009	30 Sept 2009
<b>Assets</b>		
<b>1. Analysis by currency</b>		
<i>Irish residents in non-euro</i>	72,163	68,555
US dollar	31,321	29,816
Sterling	31,697	29,093
Other	9,145	9,646
<i>Non-residents in non-euro</i>	384,634 <sup>f</sup>	359,817
US dollar	152,494 <sup>f</sup>	145,474
Sterling	183,501 <sup>f</sup>	165,762
Other	48,640 <sup>f</sup>	48,581
<i>Non-Residents in euro</i>	316,636 <sup>f</sup>	305,873
<b>2. Analysis by sector</b>		
<i>Irish residents in non-euro</i>		
Monetary financial institutions	28,830	28,535
Non-monetary financial institutions	43,333	40,020
<i>Non-residents in non-euro</i>		
Monetary financial institutions	186,307 <sup>f</sup>	173,256
non-monetary financial institutions	198,328	186,561
<i>Non-Residents in euro</i>		
Monetary financial institutions	160,370 <sup>f</sup>	155,188
non-monetary financial institutions	156,266	150,685
<b>3. Total international business</b>	<b>773,433<sup>f</sup></b>	<b>734,245</b>

**Note:** Data in this table are currently being collected under new reporting arrangements. As these new arrangements are still in the implementation phase, some estimation has been necessary, and some data for June 2009 have been revised.

€ million	30 June 2009	30 Sept 2009
<b>Liabilities</b>		
<b>1. Analysis by currency</b>		
<i>Irish residents in non-euro</i>	54,936	48,653 <sup>r</sup>
US dollar	28,571	23,165
Sterling	16,816 <sup>r</sup>	15,619
Other	9,549 <sup>r</sup>	9,870
<i>Non-residents in non-euro</i>	346,714 <sup>r</sup>	331,062
US dollar	180,395 <sup>r</sup>	174,870
Sterling	133,622 <sup>r</sup>	123,477
Other	32,697 <sup>r</sup>	32,715
<i>Non-Residents in euro</i>	337,802 <sup>r</sup>	356,102
<b>2. Analysis by sector</b>		
<i>Irish residents in non-euro</i>		
Monetary financial institutions	35,202	30,488
Non-monetary financial institutions	19,734	18,165
<i>Non-residents in non-euro</i>		
Monetary financial institutions	260,790 <sup>r</sup>	247,611
non-monetary financial institutions	85,924	83,451
<i>Non-Residents in euro</i>		
Monetary financial institutions	279,674 <sup>r</sup>	293,701
non-monetary financial institutions	58,128	62,401
<b>3. Total international business</b>	<b>739,452<sup>r</sup></b>	<b>735,818</b>

Table C11: All Credit Institutions: International Business: Analysis by Geographic Area

€ million	Liabilities			Assets				Net external liabilities <sup>a</sup>
	Denominated in:							
	Euro	Non-euro	Total	Euro	Non-euro	Total		
Return dates	2009							
	June							
<b>1. EU countries</b>	<b>309,944</b>	<b>299,485</b>	<b>609,428</b>	<b>294,989</b>	<b>308,557</b>	<b>603,546</b>	<b>+23,109</b>	
<b>MU countries</b>	<b>193,011</b>	<b>115,049</b>	<b>308,060</b>	<b>223,999</b>	<b>104,984</b>	<b>328,982</b>	<b>-3,695</b>	
Austria	2,948	805	3,753	3,372	1,509	4,881	-1,128	
Belgium	40,119	4,408	44,527	4,066	1,044	5,110	+39,417	
Luxembourg	3,113	533	3,646	2,218	2,883	5,101	-1,455	
Finland	100	139	239	1,545	653	2,198	-1,959	
France	34,459	5,334	39,794	24,938	3,686	28,624	+11,169	
Germany	95,120	30,560	125,680	33,194	4,340	37,534	+88,146	
Greece	37	82	119	8,009	527	8,535	-8,417	
Ireland	—	54,936	54,936	—	72,163	72,163	—	
Italy	1,559	1,582	3,141	71,560	8,564	80,124	-76,984	
Netherlands	9,390	15,883	25,273	24,071	4,884	28,955	-3,682	
Portugal	1,116	303	1,419	5,885	34	5,919	-4,500	
Spain	3,961	234	4,195	40,603	1,932	42,536	-38,340	
Other MU <sup>b</sup>	1,088	250	1,338	4,538	2,763	7,301	-5,963	
<b>Other EU</b>	<b>116,933</b>	<b>184,435</b>	<b>301,368</b>	<b>70,990</b>	<b>203,574</b>	<b>274,564</b>	<b>+26,804</b>	
Denmark	8,776	1,258	10,035	5,342	3,779	9,121	+914	
Sweden	145	824	969	1,752	2,473	4,225	-3,256	
United Kingdom	107,122	181,455	288,576	56,892	191,561	248,453	+40,123	
Other EU	890	899	1,789	7,005	5,761	12,766	-10,977	
<b>2. Other Europe</b>	<b>3,769</b>	<b>8,418</b>	<b>12,187</b>	<b>3,017</b>	<b>10,683</b>	<b>13,699</b>	<b>-1,512</b>	
<b>Switzerland</b>	<b>2,951</b>	<b>7,672</b>	<b>10,622</b>	<b>326</b>	<b>6,242</b>	<b>6,568</b>	<b>+4,054</b>	
<b>Other Europe</b>	<b>819</b>	<b>747</b>	<b>1,565</b>	<b>2,691</b>	<b>4,440</b>	<b>7,131</b>	<b>-5,566</b>	
<b>3. Other Industrial Countries</b>	<b>16,687</b>	<b>66,159</b>	<b>82,846</b>	<b>15,884</b>	<b>120,605</b>	<b>136,490</b>	<b>-53,643</b>	
Australia, New Zealand, South Africa	318	1,046	1,365	3,009	6,360	9,369	-8,004	
Canada	942	8,877	9,819	2,028	7,259	9,286	+533	
Japan	63	308	371	676	10,086	10,762	-10,391	
United States	15,364	55,928	71,292	10,172	96,901	107,072	-35,780	
<b>4. Offshore Centres</b>	<b>5,366</b>	<b>21,834</b>	<b>27,201</b>	<b>796</b>	<b>9,245</b>	<b>10,040</b>	<b>+17,161</b>	
<b>5. Other</b>	<b>2,035</b>	<b>5,753</b>	<b>7,789</b>	<b>1,950</b>	<b>7,708</b>	<b>9,658</b>	<b>-1,869</b>	
<b>6. Total international business</b>	<b>337,802</b>	<b>401,650</b>	<b>739,452</b>	<b>316,636</b>	<b>456,798</b>	<b>773,433</b>	<b>-16,755</b>	

<sup>a</sup> Net external liabilities are based on the selected assets and liabilities which are included in this table. A plus sign denotes net external liabilities; a minus sign net external assets.

<sup>b</sup> Positions *vis-à-vis* Slovenia, Cyprus, Malta and the Czech Republic are not statistically significant.

**Note:** Data in this table are currently being collected under new reporting arrangements. As these new arrangements are still in the implementation phase, some estimation has been necessary, and some data for June 2009 have been revised.



Liabilities			Assets			
Denominated in:			Denominated in:			
Euro	Non-euro	Total	Euro	Non-euro	Total	Net external liabilities <sup>a</sup>
2009						
September						
<b>327,270</b>	<b>285,927</b>	<b>613,197</b>	<b>286,228</b>	<b>283,671</b>	<b>569,899</b>	<b>+63,199</b>
<b>190,631</b>	<b>105,327</b>	<b>295,958</b>	<b>219,006</b>	<b>97,870</b>	<b>316,876</b>	<b>-1,017</b>
2,829	575	3,404	3,152	1,017	4,168	-764
46,897	13,005	59,902	5,873	2,037	7,910	+51,992
2,817	936	3,753	3,515	2,564	6,078	-2,325
19	60	80	1,411	564	1,974	-1,895
29,625	2,692	32,316	23,615	2,523	26,138	+6,178
83,325	23,705	107,029	31,615	3,975	35,589	+71,440
138	105	243	6,859	518	7,377	-7,134
—	48,653	48,653	—	68,555	68,555	—
11,919	1,372	13,291	73,415	7,119	80,534	-67,244
8,971	12,536	21,506	19,149	4,607	23,756	-2,250
198	188	386	5,860	10	5,870	-5,484
2,985	660	3,644	40,148	1,906	42,055	-38,411
909	842	1,750	4,395	2,475	6,870	-5,120
<b>136,639</b>	<b>180,600</b>	<b>317,239</b>	<b>67,222</b>	<b>185,801</b>	<b>253,023</b>	<b>+64,216</b>
10,152	687	10,839	6,544	4,253	10,797	+42
352	764	1,116	1,711	2,603	4,314	-3,198
125,409	178,305	303,714	52,348	173,334	225,682	+78,032
727	844	1,570	6,620	5,611	12,231	-10,660
<b>3,506</b>	<b>8,571</b>	<b>12,077</b>	<b>2,930</b>	<b>10,736</b>	<b>13,666</b>	<b>-1,589</b>
2,777	7,692	10,469	415	6,169	6,585	+3,884
728	879	1,608	2,515	4,567	7,081	-5,474
<b>17,839</b>	<b>58,898</b>	<b>76,737</b>	<b>14,049</b>	<b>116,023</b>	<b>130,072</b>	<b>-53,336</b>
344	1,039	1,383	2,826	5,995	8,821	-7,438
847	8,624	9,471	1,946	7,066	9,012	+459
65	310	375	571	10,534	11,104	-10,730
16,583	48,925	65,508	8,706	92,429	101,135	-35,627
<b>4,909</b>	<b>22,107</b>	<b>27,016</b>	<b>886</b>	<b>10,351</b>	<b>11,238</b>	<b>+15,778</b>
<b>2,578</b>	<b>4,213</b>	<b>6,791</b>	<b>1,779</b>	<b>7,590</b>	<b>9,369</b>	<b>-2,578</b>
<b>356,102</b>	<b>379,716</b>	<b>735,818</b>	<b>305,873</b>	<b>428,372</b>	<b>734,245</b>	<b>+21,474</b>

Table C13: Analysis of Residential Mortgages vis-à-vis Irish Residents

€ million	Variable rate	Fixed rate	of which:			Total
			Over 1 and up to 3 years	Over 3 and up to 5 years	Over 5 years	
<b>2002</b>						
28 June	27,582	10,296	5,608	2,699	1,989	37,878
30 September	30,422	10,125	5,426	2,632	2,067	40,547
31 December	33,137	10,279	5,475	2,698	2,106	43,416
<b>2003</b>						
31 March	34,716	10,767	6,219	2,552	1,996	45,483
30 June	36,467	10,445	6,034	2,539	1,871	46,912
30 September	40,318	10,299	6,642	2,348	1,309	50,617
31 December	44,007	10,607	7,077	2,299	1,231	54,614
<b>2004</b>						
31 March	46,809	11,083	7,220	2,176	1,687	57,892
30 June	50,843	10,994	7,444	1,930	1,620	61,837
30 September	55,731	12,887	9,313	1,880	1,694	68,618
31 December	60,563	12,557	9,234	1,673	1,650	73,120
<b>2005</b>						
31 March	64,448	12,359	9,065	1,633	1,661	76,807
30 June	69,961	12,269	8,994	1,681	1,594	82,230
30 September	75,605	12,522	9,032	1,827	1,664	88,127
30 December	79,720	14,539	10,171	2,553	1,815	94,259
<b>2006</b>						
31 March	84,045	16,037	11,731	2,682	1,623	100,082
30 June	87,124	17,214	12,071	3,333	1,810	104,338
29 September	89,257	18,708	12,667	4,074	1,967	107,965
29 December	90,355	20,247	12,793	5,306	2,148	110,603
<b>2007</b>						
30 March	88,480	23,878	15,236	6,295	2,347	112,358
29 June	88,461	27,243	19,774	4,944	2,525	115,704
28 September	90,880	29,642	20,060	6,952	2,630	120,522
31 December	92,657	30,345	20,811	6,979	2,555	123,002
<b>2008</b>						
31 March	94,026	30,359	20,662	7,115	2,582	124,385
30 June	93,034	27,535	17,932	7,016	2,587	120,569
30 September	95,730	27,314	17,090	7,449	2,775	123,045
31 December	91,433	22,857	13,272	6,878	2,707	114,290
<b>2009</b>						
31 March	93,805	19,832	10,590 <sup>f</sup>	6,409 <sup>f</sup>	2,833 <sup>f</sup>	113,637
30 June	95,777	18,083	9,243 <sup>f</sup>	6,160 <sup>f</sup>	2,680 <sup>f</sup>	113,860
30 September	93,510	16,254	7,781	5,913	2,559	109,764

**Notes:**

1. Data relate to residential mortgages as reported on the balance sheets of within-the-State offices of credit institutions, i.e., mortgages extended on a cross-border basis are not included. The total reported above is the same figure as that reported vis-à-vis Irish residents under item 5.6 (Assets) of Table C3: Credit Institutions: Aggregate Balance Sheet and so does not include securitised mortgages.
2. Variable rate includes fixed rate mortgages of up to and including 1 year.
3. Fixed rate mortgages are classified according to the term over which the interest rate is fixed and not the term of the mortgage, e.g., a 20-year mortgage with a two-year fixed interest rate is included under Fixed Rate: Over 1 and up to 3 years.



Table C14: Credit Card Statistics

Vis-à-vis Irish Residents	No. of credit cards in issue <sup>a</sup> of which:			New spending during month <sup>b</sup> of which:		
	End-month (000)	Personal cards	Business cards	€ million	Personal cards	Business cards
<b>2007</b>						
January	2,173	2,043	130	1,162.4	1,022.4	140.0
February	2,185	2,053	132	1,008.1	873.0	135.1
March	2,194	2,060	134	1,115.1	967.8	147.3
April	2,210	2,075	135	1,131.2	991.5	139.7
May	2,217	2,081	136	1,191.3	1,038.0	153.3
June	2,229	2,091	138	1,133.5	991.5	142.0
July	2,241	2,101	139	1,255.7	1,106.8	148.9
August	2,250	2,109	141	1,221.5	1,077.5	144.0
September	2,262	2,120	142	1,103.3	957.8	145.5
October	2,276	2,132	144	1,234.6	1,067.7	166.9
November	2,294	2,149	146	1,207.0	1,047.5	159.6
December	2,303	2,156	147	1,297.6	1,136.2	161.4
<b>2008</b>						
January	2,311	2,164	148	1,199.5	1,048.7	150.8
February	2,326	2,176	150	1,092.6	938.2	154.5
March	2,335	2,184	151	1,146.1	999.6	146.4
April	2,347	2,195	152	1,183.3	1,020.0	163.3
May	2,357	2,204	153	1,171.5	1,016.2	155.3
June	2,365	2,211	154	1,164.8	1,013.6	151.2
July	2,374	2,222	152	1,242.0	1,089.2	152.8
August	2,375	2,219	156	1,111.5	977.8	133.7
September	2,377	2,219	157	1,206.9	1,046.1	160.9
October	2,379	2,222	158	1,120.8	965.8	155.0
November	2,380	2,222	158	1,004.3	867.7	136.6
December	2,381	2,223	158	1,244.3	1,091.4	152.9
<b>2009</b>						
January	2,382	2,224	158	992.1	869.4	122.7
February	2,370	2,212	158	889.5	766.4	123.1
March	2,369	2,208	161	1,009.2	875.8	133.4
April	2,368	2,207	160	968.3	840.4	127.9
May	2,362	2,203	160	927.1	801.1	126.0
June	2,358	2,198	160	1,043.9	909.7	134.1
July	2,356	2,197	160	1,045.0	913.6	131.4
August	2,354	2,194	160	978.6	859.6	119.0
September	2,349	2,190	159	1,028.1	890.6	137.5
October	2,347	2,188	158	957.5	821.5	136.0
November	2,337	2,178	158	946.3	810.9	135.4

**a** Data relate to credit cards (i.e. Visa, MasterCard) in issue by credit institutions resident in Ireland. Debit cards or store cards are excluded.

**b** Data refer to new spending on all credit cards during the reference period and not just spending on new credit cards.

**c** Data refer to debt outstanding on all credit cards at month-end and include balances that may be paid in full at the payment due date.

Payment received during month			Outstanding indebtedness on credit cards <sup>c</sup>			Outstanding indebtedness year-to-year change	
€ million	of which:		€ million	of which:		%	
	Personal cards	Business cards		Personal cards	Business cards		
							<b>2007</b>
1,229.1	1,080.0	149.1	2,696.8	2,573.8	123.0	17.9	January
1,035.9	897.6	138.3	2,697.8	2,577.4	120.4	18.6	February
1,141.1	999.6	141.4	2,698.3	2,571.6	126.8	19.6	March
1,129.8	979.0	150.8	2,791.8	2,670.8	121.0	17.1	April
1,346.9	1,200.0	146.4	2,673.2	2,544.6	128.5	11.5	May
1,138.7	997.1	141.7	2,692.7	2,563.4	129.4	10.6	June
1,267.5	1,114.1	153.4	2,720.9	2,595.6	125.3	11.7	July
1,208.6	1,061.7	146.8	2,762.9	2,639.7	123.3	11.7	August
1,074.9	936.2	138.7	2,817.7	2,686.9	130.8	11.6	September
1,271.1	1,108.8	162.4	2,810.6	2,674.7	135.9	11.5	October
1,187.0	1,031.6	155.4	2,866.5	2,724.3	142.2	11.1	November
1,198.6	1,039.2	159.4	2,992.2	2,847.3	144.9	9.3	December
							<b>2008</b>
1,278.6	1,116.3	162.3	2,938.1	2,802.7	135.3	8.9	January
1,145.7	997.6	148.1	2,919.8	2,777.3	142.5	8.2	February
1,167.7	1,008.3	159.4	2,930.2	2,799.9	130.3	8.6	March
1,209.4	1,053.3	156.1	2,992.3	2,850.2	142.2	7.2	April
1,210.7	1,052.2	158.5	2,990.4	2,850.6	139.8	11.9	May
1,184.4	1,028.7	155.7	3,000.7	2,864.4	136.3	11.4	June
1,273.1	1,115.0	158.2	2,999.1	2,867.4	131.7	10.2	July
1,099.1	959.3	139.8	3,042.3	2,916.2	126.1	10.1	August
1,202.2	1,052.6	149.6	3,078.7	2,940.4	138.3	9.3	September
1,181.4	1,024.1	157.4	3,052.1	2,915.2	136.9	8.6	October
1,043.2	897.5	145.7	3,045.9	2,917.4	128.6	6.3	November
1,194.5	1,043.8	150.7	3,128.5	2,997.0	131.5	4.6	December
							<b>2009</b>
1,088.7	953.6	135.1	3,066.5	2,946.5	120.0	4.4	January
965.1	839.7	125.4	3,015.3	2,896.7	118.6	3.3	February
1,087.7	955.5	132.2	2,963.8	2,843.0	120.8	1.1	March
999.2	865.8	133.5	3,016.4	2,896.2	120.2	0.8	April
976.2	852.3	123.9	2,993.7	2,870.8	122.9	0.1	May
1,041.2	906.5	134.8	3,020.9	2,898.3	122.6	0.7	June
1,067.5	934.0	133.5	3,035.5	2,914.2	121.3	1.2	July
985.3	862.1	123.2	3,042.1	2,924.2	117.8	0.0	August
1,013.5	884.3	129.2	3,078.1	2,951.2	126.9	0.0	September
1,008.9	873.7	135.2	3,052.5	2,924.0	128.6	0.0	October
994.3	858.2	136.1	3,028.8	2,900.8	128.0	-0.6	November



## **Section D**

### **Public Finances**





**Table D1: Government Debt and Government-Guaranteed Debt<sup>a</sup>**

€ million	2009			
	End-quarter	31 Mar.	30 June	30 Sep.
<b>Government Debt</b>				
<u>Amount outstanding (gross)</u>				
<b>Euro-denominated debt</b>				
Government stock	53,166	57,453	61,262	70,858
Exchequer Bills/Notes, Central Treasury Notes	3,376	13,685	13,701	9,265
Saving Certificates/Stamps	2,664	2,811	2,950	3,105
Prize Bonds	874	944	1,015	1,073
Savings Bonds	2,130	2,332	2,526	2,761
National Instalment Savings	437	443	449	456
Ways and means	1,495	2,079	2,247	1,783
Borrowings from Central Bank, etc.	—	—	—	—
Local loans funds	5	5	5	5
Short-term paper	10,269	6,959	3,649	1,746
FX contracts	6,954	6,987	7,345	5,258
EIB loans	—	—	—	—
Public bond issues	—	—	—	—
Private placements	218	218	218	218
Medium-term notes	—	—	—	—
Swaps	448	448	448	448
<b>Total euro-denominated debt</b>	<b>82,036</b>	<b>94,364</b>	<b>95,815</b>	<b>96,975</b>
<b>Non-euro-denominated debt</b>				
EIB loans	30	—	—	—
Public bond issues	—	—	—	—
Private placements	—	—	—	—
Medium-term notes	452	428	418	422
Swaps	-452	-428	-418	-422
Short-term paper	6,778	6,756	7,115	5,373
FX contracts	-6,910	-6,830	-7,142	-5,381
<b>Total non-euro-denominated debt</b>	<b>-102</b>	<b>-75</b>	<b>-27</b>	<b>-8</b>
<b>Gross debt</b>	<b>81,934</b>	<b>94,289</b>	<b>95,788</b>	<b>96,967</b>
<b>Residual Maturity Profile</b>				
Amounts due to mature in:				
— ≤ 1 year	28,055	30,688	25,409	19,968
— Over 1 year but ≤ 5 years	18,011	18,846	22,035	27,849
— Over 5 year but ≤ 10 years	20,667	22,854	25,556	33,059
— Over 10 years	15,201	21,901	22,788	16,092
<b>Total</b>	<b>81,934</b>	<b>94,289</b>	<b>95,788</b>	<b>96,967</b>
<b>Government-guaranteed debt</b>	<b>4,628</b>	<b>5,785</b>	<b>5,210</b>	<b>n.a.</b>

<sup>a</sup> The term Government debt refers to central government debt. The data provided on Government-guaranteed debt refer mainly to State-sponsored bodies. An advance release calendar for central government debt is shown on the IMF Special Data Dissemination Standards (SDDS) Bulletin Board.

**Sources:** NTMA and Department of Finance.

Table D2: Government Stock — Nominal Holdings

€ million End-quarter	2008	2009		
	December	March	June	September
1. Resident <sup>a</sup>	3,586	9,729	11,284	11,360
— MFIs and Central Bank	2,405	6,665	8,081	8,074
— General government	157	412	450	337
— Financial intermediaries	811	2,356	2,426	2,623
i) Financial auxiliaries	144	182	210	270
ii) Insurance corporations and pension funds	648	2,144	2,165	2,307
iii) Other financial intermediaries	19	30	51	46
— Non Financial Corporations	53	85	122	199
— Households	160	211	205	127
2. Rest of world	38,277	43,437	46,169	49,903
<b>Total</b>	<b>41,863</b>	<b>53,166</b>	<b>57,453</b>	<b>61,263</b>
3. Amounts due to mature in:				
— Less than 3 years	9,869	14,258	9,836	10,258
— 3 or more years but less than 5 years	6,062	12,064	12,668	14,422
— 5 or more years but less than 10 years	11,857	11,860	20,965	21,712
— 10 or more years but less than 15 years	14,075	14,984	13,984	14,871
— 15 or more years				
<b>Total</b>	<b>41,863</b>	<b>53,166</b>	<b>57,453</b>	<b>61,263</b>

<sup>a</sup> Above conform to ESA95 standard. Financial auxiliaries include, for example, insurance and security brokers and investment advisors, etc. Other financial intermediaries include mutual funds, financial leasing, etc.

# Explanatory Notes

The Central Bank of Ireland became the Central Bank & Financial Services Authority of Ireland (the 'Bank') on 1 May 2003. However, in order to ensure clarity and continuity in the statistical tables and Explanatory Notes the term 'Central Bank' is generally used.

## Section A: Main Monetary Indicators

### Selected Monetary Aggregates

#### 1. Selected Measures of Private-Sector Credit

*Private-sector credit of all credit institutions* comprises all forms of lending, including accrued interest thereon, by within-the-State offices of all credit institutions to Irish resident entities other than credit institutions, the Central Bank and the General Government.

#### 2. Monetary Aggregates

The Irish contribution to *narrow money supply M1*, contains two components, namely currency in circulation and overnight deposits. Currency in circulation comprises the Bank's share of euro banknotes issued in the Eurosystem, in proportion to the Bank's paid-up shares in the capital of the ECB, plus coin issued by the Central Bank less holdings by within-the-State offices of MFIs of issued euro banknotes and coin. Overnight deposits comprise sight/demand deposits held at within-the-State offices of all credit institutions and the Post Office Savings Bank by Irish and other monetary union resident private-sector entities, i.e., by Irish and other monetary union resident entities other than credit institutions, the Central Bank and Central Government.

The Irish contribution to the *intermediate money supply M2*, comprises M1 plus deposits with an agreed maturity of up to 2 years, deposits with a period of notice of up to 3 months denominated in both euro and foreign currency held at within-the-State offices of all credit institutions and the Post Office Savings Bank, by Irish and other monetary union resident private-sector entities, i.e., by Irish and other monetary union resident entities other than credit institutions, the Central Bank and Central Government.

The Irish contribution to the *broad money supply M3*, covers M2, repurchase agreements and debt securities with a maturity of up to 2 years issued by within-the-State offices of all credit institutions to Irish and other monetary union resident private-sector entities minus holdings by credit institutions of securities issued by euro-area MFIs. It also includes money market fund (MMF) shares/units issued by resident MMFs to Irish and other euro-area residents.

## Section B: Interest Rates and Exchange Rates and Balance of Payments

### Official and Selected Interest Rates

Table B1 includes key ECB and money-market interest rates and selected domestic rates, which were previously in Tables B1 and B2.

### Retail Interest Rates

Tables B2.1 and B2.2 show retail interest rates and volumes for outstanding amounts and new business collected under Regulation ECB/2001/18. This regulation provides a framework for collecting harmonised interest-rate data for euro-denominated loans and deposits vis-à-vis households and non-financial corporations resident in the euro area. Rates are calculated as weighted averages for all products within each instrument category.

For all instrument categories except the APRC, the rate relates to the interest component only. The APRC includes the interest component plus any other charges applied by the lending institution.

## Trade-Weighted Competitiveness Indicators for Ireland

### 1. Weights (%)

UK (27.66), US (18.31), Germany (16.22), France (9.12), Japan (8.57), Netherlands (5.67), Italy (5.43), Belgium (3.51), Singapore (2.93) and Spain (2.58).

### 2. Deflators

*Consumer Prices* — Harmonised Indices of Consumer Prices (HICP) are used for Ireland and the other EU countries. CPI indices are used for the remaining three countries.

*Producer Prices* — Indices of domestic output prices for manufacturing are used for Ireland, the other EU countries and Japan. The index for finished goods is used for the US while the wholesale index is used for Singapore.

Since seasonally-adjusted data are not universally available, non-seasonally adjusted price indices are used.

## Section C: Banking and Other Financial Institutions

### Credit Institutions: Monthly Balance-Sheet Statistics

#### 1. Coverage

The monthly balance-sheet statistics relate to liabilities and assets, classified on a residency basis in respect of within-the-State offices.

#### 2. Residency

The residency classification is based on the residency of a customer and not on the location of the particular branch in which the account is maintained. Irish residents comprise the General Government, individuals living in the State for at least one year, private non-profit-making bodies, and enterprises, both public and private, that operate within the State. The definition of residency conforms to international balance-of-payments convention.

#### 3. Valuation

Unless otherwise specified, all liabilities and assets are recorded at the value standing in reporting institutions' books ("book value") on return dates. In some cases, book value will reflect not only the cash value but also revaluations and internal transfers.

All non-euro liabilities and assets, regardless of residency classification, are valued at mid-spot rates on return dates and recorded in the tables as euro equivalents of the amounts outstanding on those days.

The valuation of liabilities and assets would not normally include accrued interest payable or receivable on relevant accounts, nor would it include unearned interest or charges. However, where a liability or asset is valued at market price which indistinguishably includes interest, such accrued interest may form part of the valuation; where interest is paid by means of discount (for example, Exchequer Notes), such interest may also be included in book value, if it is the accounting practice of institutions to do so.

Other aspects which impinge on the method of measuring various liabilities and assets are the treatment accorded to provisions for bad and doubtful debts, offsets and items in transit.

*Provision for bad and doubtful debts* comprise specific and general provisions and interest suspense accounts. These are defined in accordance with a provision in the Companies Act, 1963, and have been deducted from the loans to which they refer.

*Offsets*: Certain credit and debit balances, which satisfy precise conditions specified by the Central Bank have been offset.

*Items in transit*: Credit institutions' current accounts and overdrafts have been adjusted for net debit items in transit by deducting 60 per cent of the figure from current accounts and adding 40 per cent to overdrafts.

#### 4. Monetary Financial Institutions

Credit institutions, as defined in Community Law, and all other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than monetary financial institutions (MFIs), and, for their own account (at least in economic terms), to grant credits and/or make investments in securities.

#### 5. Credit Institutions

The definition of credit institutions corresponds with that of the EEC First Banking Directive. In the Irish case, resident credit institutions comprise licensed banks, building societies and credit unions.

## 6. Government entities

6.1 General Government comprises all institutional units under public control that are principally engaged in: i) the production of goods and services not usually sold on a market; and/or ii) the redistribution of national income and wealth. They are mainly financed by compulsory payments by the population. General Government is sub-divided as follows:

- (i) central government: all administrative departments, agencies, foundations, institutes and similar state bodies, whose competence extends over the whole economic territory.
- (ii) other general government comprises state/regional government (institutional units exercising some of the functions of government at a level below central government but above local government); local government (administrative department, agencies etc. whose competence covers only a restricted part of the economic territory; and social security funds (schemes whose principal objective is to provide social benefits to the population).

The Irish Central Government includes all government departments, the National Treasury Management Agency (NTMA) and the Post Office Savings Bank (POSB).

## 7. Other resident (non-Government) entities

Other resident (non-Government) entities are personal and corporate clients, credit unions, commercial State-sponsored bodies, hire-purchase and other finance companies. They do not include the Central Bank, the General Government or credit institutions.

## 8. All Credit Institutions: Aggregate Balance Sheet — Liabilities

8.1 *Capital and reserves* comprise all capital (including capital contributions, i.e., payments into the reserves of a reporting institution by its parent for no consideration, which are not repayable except at the option of the reporting institution), reserves (except taxation reserve), accumulated retained profits, preference shares and subordinated loan capital, including floating rate notes.

8.2 *Deposits from credit institutions and other MFIs (excluding Central Bank)* comprise all funds placed with reporting institutions by monetary financial institutions. It includes: current accounts, money market deposits and other term deposits of MFIs with the reporting institution.

8.3 *Deposits from Central Bank* comprises drawings on the European System of Central Banks' Marginal Lending Facility, sale and repurchase agreements and other advances extended by the European System of Central Banks or other central banks.

8.4 *Deposits from General Government* comprises overnight (current) and deposit account balances held by the General Government (including government departments and the National Treasury Management Agency) with credit institutions.

8.5 *Deposits from other residents* comprise overnight (current) accounts and deposit accounts held with credit institutions by resident entities, as defined in item 7.

- (i) *Overnight accounts* comprise demand deposits, including those bearing interest, which are transferable by cheque or electronic equivalent, and suspense accounts. This item is reported net of the adjustment for items in transit, as defined in item 3.
- (ii) *Agreed maturity* comprise non-transferable deposits which cannot be converted into currency before that agreed fixed term or which can only be converted into currency before that agreed term provided that the account holder is charged some kind of penalty.
- (iii) *Notice* comprise deposits which are without any agreed maturity and cannot be converted into currency without a period of prior notice, before which the conversion into cash is not possible or possible only with a penalty.
- (iv) *Repurchase agreements* comprise funds received as part of 'repo-like' agreements. These agreements involve the receipt of cash by the reporting institution in exchange for securities with a simultaneous commitment to reverse the transaction at a future date. 'Repo-like' agreements include genuine repos, sale and buy-backs, and securities lending agreements with cash collateral.

8.6 *Debt securities issued* comprise funds received in exchange for non-equity debt securities issued by the reporting institution. Such instruments are usually negotiable and traded on secondary markets, and do not grant the holder any ownership rights over the issuing institution. All non-equity bearer securities which have been issued by the reporting institution are reported here, e.g., all commercial paper, certificates of deposit, notes and bonds which have been issued by the reporting institution to non-Government entities or in bearer form.

8.7 *Remaining liabilities* are the sum of all other liabilities of credit institutions. These include accrued interest payable, taxation provisions and reserves, sundry credit items such as: accrued expenses or net credit balances on accounts relating to the operating costs of the reporting institution such as salaries, wages, rent, rates, stationery, heating and lighting, insurance, stamp duty, PAYE, VAT, etc.; any gross credit balances on impersonal accounts not relating to customers' funds; any leasing rentals paid in advance by customers; any commissions and any net liability to non-resident offices.

### 9. All Credit Institutions: Aggregate Balance Sheet — Assets

9.1 *Holdings of notes and coin* comprise holdings of cash at branches and at the head office of the reporting institution. Cash in transit between branches and head office and cash held in ATMs are included.

9.2 *Loans to credit institutions and other MFIs (excluding Central Bank)* comprise all funds placed by reporting institutions with monetary financial institutions. It includes: current accounts, money market deposits and other term deposits of the reporting institution with MFIs.

9.3 *Balances with Central Bank* comprise any deposit which the reporting institution must maintain with the Central Bank of Ireland pursuant to the European Communities (Deposit Guarantee Schemes) Regulations, 1995 and funds placed by reporting institutions in their reserve requirement deposit accounts. It also includes discretionary term deposits, overnight and current/settlement account balances and any special supplementary deposits which reporting institutions have been requested to place with the European Systems of Central Banks or other central banks.

9.4 *Loans to General Government* comprise credit extended by credit institutions to General Government including advances under revolving credit facilities.

9.5 *Loans to other residents* comprise all forms of lending, i.e., funds lent by the reporting institution which are not evidenced by negotiable documents, to resident entities, as defined in item 7. Lending to credit institutions, the Central Bank and Central Government is excluded. All loans are reported net of any provisions for bad and doubtful debts and net of any unearned interest and charges.

- (i) *Overdrafts* comprise utilised facilities granted by way of accommodation to clients on accounts which show frequent fluctuations between debit and credit balances. Such facilities are usually negotiated for a period of one year and are repayable on demand. Only debit balances are reported here. This item is reported net of the adjustment for items in transit, as defined in item 3.
- (ii) *Repurchase agreements* comprise funds advanced under 'reverse repo-like' agreements. These agreements involve the lending of cash by the reporting institution in exchange for securities with a simultaneous commitment to reverse the transaction at a future date. 'Reverse repo-like' agreements include genuine reverse repos, buy and sell-backs, and securities borrowing agreements with cash collateral.
- (iii) *Loans up to and including one year* comprises loans, other than overdraft facilities, with an original maturity of up to and including one year. Any loans to resident entities, as defined in item 7, at a money-market rate and with an original maturity of up to and including one year are reported here.
- (iv) *Term/revolving loans* comprise loans which are repayable by negotiated amounts and which at the time when they were originally contracted (or renegotiated if applicable) had a maturity in excess of one year; loans to resident entities, as defined in item 7, at a money-market rate and with an original maturity of more than one year; loans which are rolled over after specified periods under loan agreements which at the time of original contraction (or renegotiation if applicable) are for periods in excess of one year; instalment-credit type financing with fixed monthly repayments whereby, as the monthly payment reduces the amount outstanding on the loan, the borrower may obtain further advances by topping up to his credit limit without increasing the amount of his monthly payment; and aggregate amount of net indebtedness of credit-card holders arising from the usage of credit cards.
- (v) *Instalment-credit/Hire-purchase/Leases* comprise agreements where the amount borrowed is repayable with interest by equal instalments over an agreed period. In the case of hire-purchase agreements ownership remains with the reporting institution until the customer has paid the required number of instalments and exercised his right to purchase the goods. In the case of instalment-credit agreements ownership of the goods passes to the customer from the supplier, with the reporting institution making its advance on the completion of the documentation. Unearned interest and charges are not included. In the case of leases, the lease transfers substantially all the risks and rewards of ownership of the asset to the lessee. It is presumed that such a transfer of risks and rewards occurs if at the inception of the lease the present value of minimum lease payments, including any initial payment, amounts to substantially all (90 per cent or more) of the fair value of the leased asset. Unearned interest and charges are not included.

- (vi) *Residential mortgages* comprise lending to private individuals for house purchase, repair, development or improvement, secured by a mortgage on the property which is or will be occupied by the borrower or which the borrower will rent out for residential purposes. This includes mortgages, for example, for holiday or second homes. 'Top up' mortgages or 'equity release' mortgages, whereby a mortgage is increased to allow funds to be used for purposes other than purchase of residential property are not included. Such mortgages are reported under Other Mortgages.
- (vii) *Other mortgages* comprise commercial mortgages and all other loans secured by mortgage on property, other than those mentioned above.
- (viii) *Other loans and securities issued* comprises all other forms of lending by credit institutions to non-Government entities.

9.6 *Holdings of securities* comprise funds lent in exchange for non-equity debt securities. Such instruments are usually negotiable and traded on secondary markets, and do not grant the holder any ownership rights over the issuing institution. The category *Issued by general government* includes *Exchequer Notes* and other government *Securities* (stock) held by credit institutions, including any government securities lent by reporting institutions as part of sale and repurchase agreements or securities lending agreements.

9.7 *Shares and other equity* comprise holdings of securities which represent property rights in corporations. These securities generally entitle the holders to a share in profits of the corporation or share in their own funds in the event of liquidation.

9.8 *Fixed assets* comprise premises, equipment, furniture, fixtures and fittings, company cars, etc., owned by reporting institutions for their own use. These assets are reported net of accumulated depreciation.

9.9 *Remaining assets* are the sum of all other assets of credit institutions. These include accrued interest receivable, sundry debit items such as: prepayments or debit balances on operating accounts of the reporting institution such as salaries, wages, rent, rates, stationery, heating and lighting, insurance, stamp duty, PAYE, VAT, etc.; any net claim on non-resident offices.

#### **10. Retail Clearing Institutions: Aggregate Balance Sheet**

The items reported in this balance sheet consist of the items defined for all credit institutions, reported for retail clearing institutions only.

#### **11. Non-Retail Clearing Institutions with Predominantly Domestic Business: Aggregate Balance Sheet**

The items reported in this balance sheet consist of the items defined for all credit institutions, reported for non-clearing institutions with predominantly domestic business only.

#### **12. Non-Retail Clearing Institutions with Predominantly Foreign Business: Aggregate Balance Sheet**

The items reported in this balance sheet consists of the items defined for all credit institutions, reported for non-retail clearing institutions with predominantly foreign business only.

#### **13. Mortgage Lenders: Aggregate Balance Sheet**

The items reported in this balance sheet consist of the items defined for all credit institutions, reported for mortgage lenders only.





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