



Rossa White

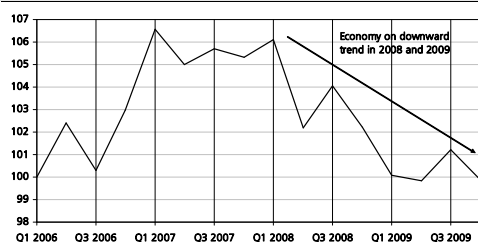
rossa.white@davy.ie

+353 1 6148770

Davy on the Irish Economy

Economy set to shrink by 3.5% in size in 2009

Quarterly GNP (volume, sa, Q1 2006=100)



Source: Davy estimates; CSO

Table of contents

Summary of economic forecasts

2

Recession to last through 2009; and 2010 recovery hopes fading

3

Remarkable deterioration in the Irish economy since Q1

3

The economy will be in recession throughout Q4 2008-Q2 2009

5

Huge increase in private sector debt drove economy from 2002 on, but deleveraging now pernicious

6

Latest property market trends not encouraging

9

Government profit-and-loss account deteriorating

9

Tax revenue to decline by more than the contraction in nominal GDP

11

Government spending estimates largely revealed: capital spending has been cut by 15%

11

Debt to GDP ratio to start rising; serious look at public sector employment levels is required to stop the rot

13

Contacts

14

Important disclosures and notices

15

Recession to last throughout much of 2009; hope of bounce in 2010 fading

- We expect Irish real GNP to shrink 3.4% in 2009 following -2% in 2008. Unusually, the economy will experience mild deflation leading to a 3.5% decline in cash terms.
- There has been a remarkable deterioration in the economy since March, sparked by a tightening of credit availability.
- The drop in retail sales, a jump in unemployment claimants and lower indigenous manufacturing activity highlight the severity of the downturn.

We publish seasonally adjusted quarterly forecasts for first time: economy in recession for four of next five quarters

- The goal of new quarterly forecasts is to spot turning points. Our first published seasonally adjusted forecasts detail how the economy may decline in Q4 2008-Q2 2009. We expect the economy to grow in Q3 2009 before a renewed dip in Q4 2009.
- Major progress in the banking sector is required if we are to see a turning point before the end of 2009.

Budget probably not as deflationary as we had feared

- The cutback in 2009 capital spending is unfortunate but not too severe. It is down 15% compared with the initial Budget and 9% versus the 2008 out-turn, yet it is still the highest in Europe at 5.7% of GNP.
- Ireland is not breaking the EU rules. Any economy experiencing a decline in GDP is not exposed to censure under the revised Stability and Growth Pact.
- A cut in public sector employment is needed to avoid a steady rise in the debt to GDP ratio in the future.

Please refer to important disclosures at the end of this report.

Davy is regulated by the Financial Regulator and is a member of the Irish Stock Exchange and London Stock Exchange. Davy is authorised by the Irish Financial Regulator and regulated by the Financial Services Authority for the conduct of business in the UK. All prices as of close of previous trading day unless otherwise indicated. All authors are Research Analysts unless otherwise stated. For the attention of US clients of Davy Securities, this third-party research report has been produced by our affiliate, J & E Davy.

Table 1: Summary of economic forecasts

	2007	2008F	2009F
Expenditure components of GNP (% change in volume)			
Consumer spending	6.3	-0.5	-2.8
Government spending	6.0	4.0	2.8
Investment	1.2	-19.3	-25.8
- Residential investment	-9.2	-28.7	-38.2
- Non-residential building investment	8.8	-10.0	-17.2
- Machinery and equipment	13.5	-15.0	-20.0
Exports	6.8	1.8	1.5
Imports	4.1	-1.7	-3.4
GDP	6.0	-1.7	-2.8
GNP	4.1	-2.0	-3.4
Balance of payments			
Current account (€m)	-10,302	-8,699	-2,005
% of GNP	-6.4	-5.5	-1.3
Inflation (% yoy, annual average)			
Consumer Price Index (CPI)	4.9	4.3	0.6
Harmonised Index of Consumer Prices (HICP)	2.9	3.3	1.1
Wage inflation	4.5	4.0	3.5
Labour market (% change yoy)			
Employment	3.6	-0.2	-3.9
Unemployment rate (end-year, sa)	4.6	6.6	8.5
Public finances (€m)			
Exchequer Balance (€m)	-1,619	-12,554	-18,567
% of GNP	-1.0	-8.0	-12.2
General Government Balance (€m)	555	-10,374	-16,387
% of GDP	0.3	-5.6	-9.1
Government debt			
(% of GDP)	24.8	30.9	40.9
Interest rates			
	Current	End-2008	End-2009
Eurozone refi rate	3.75%	3.5%	2.5%
US Fed funds rate	1.5%	1.5%	1.5%
UK repo rate	4.5%	4.25%	3%
Exchange rates			
\$/€	1.365	1.4	1.35
£/€	0.796	0.82	0.8

Source: Davy forecasts

- Economy to shrink by 3.5% in nominal terms in 2009

- Employment to decline 4% and unemployment rate to hit 8.5%

Recession to last through 2009; and 2010 recovery hopes fading

The economy is set to contract sharply in both the rest of 2008 and 2009. We expect GNP to decline 2% in real terms this year. Next year, the economy may shrink by 3.4% in volume and by 3.5% in nominal terms.

Economic prospects will not be helped by a combination of factors:

- The decline in construction activity will continue. House completions will slip to 25,000 from 50,000 in 2008. New completions of commercial buildings are also likely to fall. Meanwhile, public capital spending is set to decline 8% year-on-year.
- The severe credit squeeze will continue as banks struggle with non-performing loans to the construction sector, hurting business investment and consumer spending. Employment may drop by 4% and the unemployment rate may reach 8.5% by the end of 2009. Inflation will decline to 1% or lower, which will help. But the loss of financial and property wealth over the last year, plus deteriorating labour market prospects, will lead to a further rise in the household savings ratio.
- Export demand will wane, reflecting lower consumer spending in the UK, US and much of the euro area. Low-tech manufactured goods and food products destined for the UK will suffer. In addition, we expect financial and business service exports to take a particular hit as a result of the ongoing fallout from the banking crisis.

Looking to 2010, the outlook is clouded. The crucial variable is how the domestic financial system responds over the next 12 months. If bank lending to credit-worthy businesses and households picks up, the recession will not be prolonged indefinitely. But that is far from certain. The worry is that credit contractions tend to be pro-cyclical and lengthy.

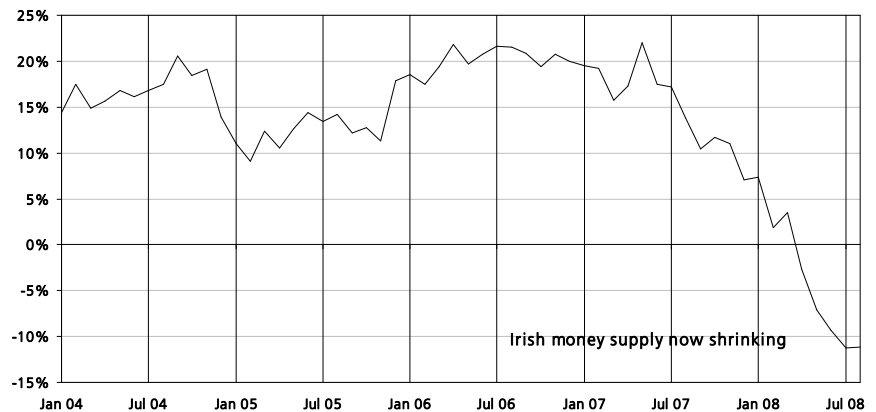
Remarkable deterioration in the Irish economy since Q1

The Irish economy has deteriorated rapidly since the first quarter of the year. That has been associated with a sharp tightening of credit, confirmed by the central bank's lending survey, our own survey of mortgage brokers and the contraction in the money supply. Cash flow has dried up, so the money supply is declining in a remarkable turnaround from the abundant liquidity of 2003-2006 (see Figure 1).

Housing has been declining for more than two years, and commercial building followed 12 months later. But the rest of the economy has slipped over the last six months. That slide in activity is illustrated most starkly by the trend in retail sales, unemployment claimants and indigenous manufacturing.

- Money supply shows that cash flow is drying up across the economy

Figure 1: Money supply (M3, % change yoy)

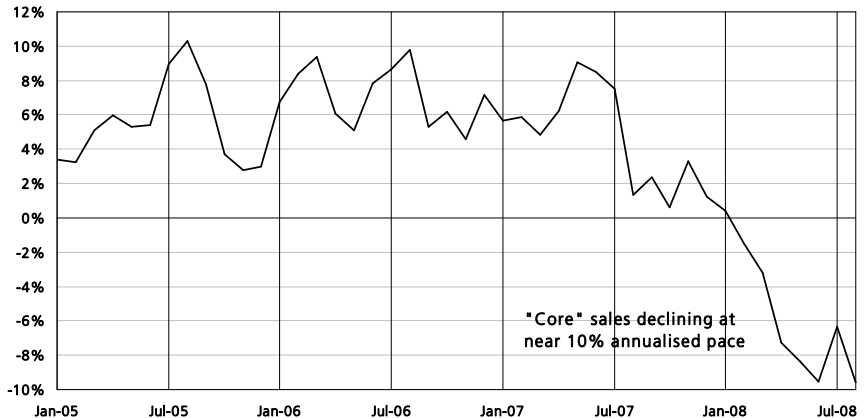


Source: Central Bank of Ireland

Retail sales fell sharply again in August (see Figure 2). They have decreased month-on-month for seven out of the eight months in 2008, the only exception coming when the new Vehicle Registration Tax changes sparked a bounce in car sales in July. Sales volume is now 6.8% lower than at the end of 2007. We expect consumer spending to decline by close to 3% in 2009.

- Retail sales drop, spike in unemployment claimants and decline in indigenous manufacturing all highlight deterioration in economy since Q1

Figure 2: Retail sales (excluding garages, % change 3m/3m annualised)

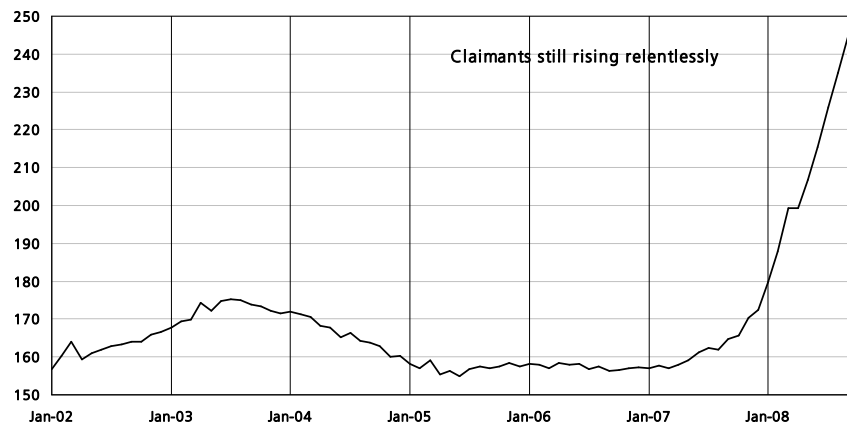


Source: CSO

Unemployment claimants have grown relentlessly all year (see Figure 3). The annualised increase in H1, at 60%, was the most since 1975. In the third quarter, claimants jumped at an annualised pace of 66% compared with the previous three months. The huge number of layoffs in building has been augmented by widespread job losses in the financial and business service sector, retailing and indigenous manufacturing. We expect the unemployment rate to reach 8.5% by December 2009.

Indigenous (or largely Irish-owned) manufacturing has suffered on a number of fronts. First, a large part of its growth in recent years has been tied to the construction boom. Second, it is particularly dependent

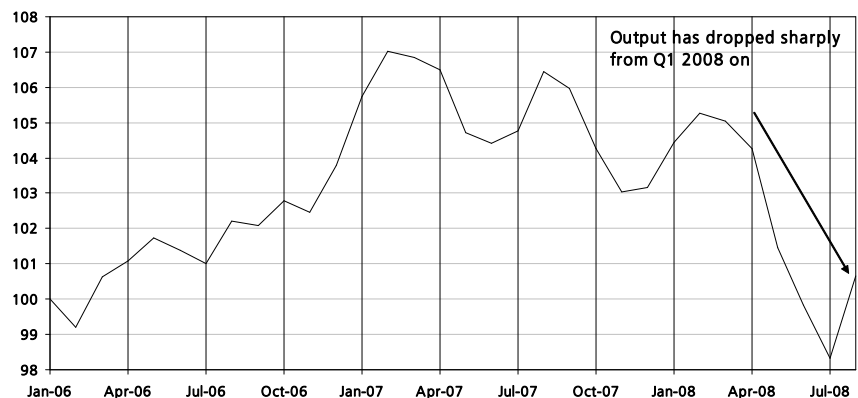
Figure 3: Live Register (000s, seasonally adjusted)



Source: CSO

on the UK market, where demand has weakened. Third, the euro has appreciated markedly against the pound sterling over the last 12 months. That has hurt exporters' margins or market share in the UK, depending on their pricing strategy. It also matters from the other direction because UK manufacturers are the biggest competitive threat to indigenous manufacturers that sell into the domestic market. A weaker pound has provided those UK competitors with a significant edge. From the first quarter onwards, Irish-owned manufacturing output has declined. In the three months to August, production was 4.4% lower than six months earlier in December-February (see Figure 4).

Figure 4: Industrial production (non-modern sectors, Jan. 2006 = 100, sa, 3mma)



Source: CSO

We produce official quarterly forecasts for the first time: the economy will be in recession throughout Q4 2008-Q2 2009

- Seasonally adjusted quarterly forecasts help identify turning points

For the first time in *Davy on the Irish Economy*, we are producing seasonally adjusted quarterly forecasts. At this point in the cycle, year-on-year changes do not add much value as it is impossible to spot turning points. We have concentrated on quarter-on-quarter movements for some time and have modelled them without releasing estimates. This time around, we are releasing those numbers.

Our forecasts show that the economy grew sequentially in Q3 2008 in GNP terms (see Table 1). But it then contracts for three straight quarters before some respite in Q3 2009. That will be temporary, however, as we see the economy shrinking again in the final quarter of 2009.

Table 1: GNP (volume, % change quarter-on-quarter, seasonally adjusted)

Q1 08	Q2 08	Q3 08F	Q4 08F	Q1 09F	Q2 09F	Q3 09F	Q4 09F
0.8	-3.1	1.8	-1.8	-2.1	-0.2	1.4	-1.3

Source: Davy forecasts; CSO

- Economy will be in recession from Q4 2008-Q2 2009

The bounce in the quarter just passed reflected a spike in retail sales in July, relatively flat building activity when adjusted for seasonal factors and marginal growth in exports. But all of those components will turn lower in the current quarter, and that trend will be extended into the first half of next year. The steady decline in house completions will have a large bearing on keeping the economy in recession in the first half of next year (see Figure 5).

Figure 5: Quarterly GNP (volume, Q1 2006 =100, seasonally adjusted)



Source: Davy forecasts; CSO

- Amount of leverage in the economy a big problem

Huge increase in private sector debt drove economy from 2002 on, but deleveraging now pernicious

The biggest challenge facing the Irish economy over the next couple of years is the amount of private sector debt in the system. Much of that debt is backed by property assets that are falling in value. The "financial accelerator" is at work in the Irish economy: "just as a healthy financial system promotes growth, adverse financial conditions may prevent an economy from reaching its potential"¹.

The financial system in developed economies is undergoing a massive deleveraging process following a six-year credit binge. That debt

¹ "The Financial Accelerator and the Credit Channel", Chairman Ben S. Bernanke speech at Federal Reserve Bank of Atlanta, June 15th 2007. Available at: www.federalreserve.gov/newsevents/speech/Bernanke20070615a.htm

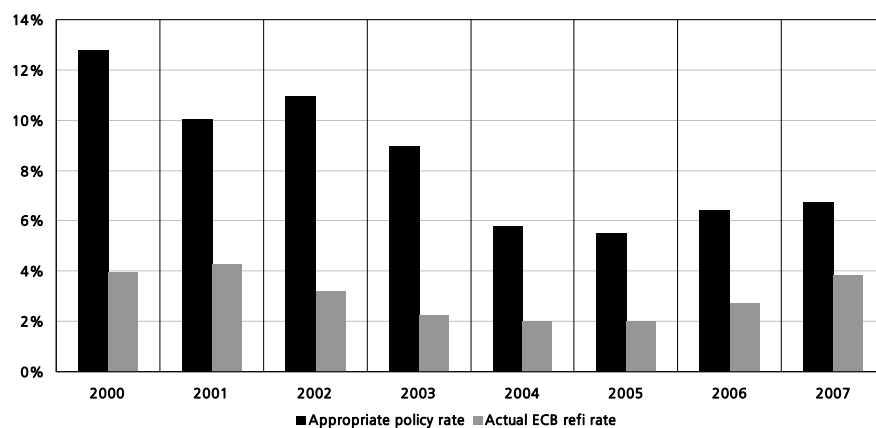
- High debt level magnifies the impact of slowing cash flow or rising interest rates

reduction process has property at its centre. Unlike in the early 2000s, it is not non-financial corporations that are heavily indebted; it is financial institutions and households. Much of the debt is backed with property as collateral.

Some suggest that nominal interest rates are much lower than in the early 1990s, so the problem is manageable. That misses the point: when you are highly indebted, each little change in interest rates or, more importantly, cash flow is amplified.

Ireland was a microcosm of that credit bubble in the western world. Credit was freely available. Mortgage lending terms increased, as did maximum loan-to-values. But the salient difference between Ireland and, for example, the UK and most of the euro area, was that interest rates were totally inappropriate for our circumstances. Output was above potential for most of the period. A point Taylor rule estimate shows that interest rates were inappropriately low (see Figure 6). If we still had control of them, we can only assume that they would have been four or five percentage points higher in 2003-2006 (see: "[Ireland's interest rate should be 6%](#)" *Davy Weekly Book, January 21st 2005*).

Figure 6: Taylor Rule estimate of appropriate base interest rate for Ireland



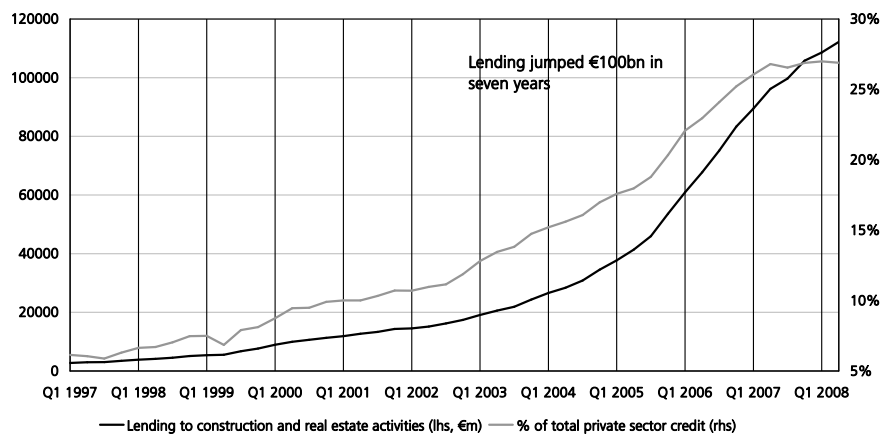
Source: Davy estimates

The increase in property-related lending in Ireland since the turn of the century is astonishing. Credit for construction (development) and real-estate activities (investment in commercial buildings) jumped from €12.7bn or 10% of private-sector credit outstanding to Irish residents in the second quarter of 2001 to €112.2bn or 27% of the total seven years on (see Figure 7).

- Development and investment lending up €100bn in seven years

Separately, mortgages accounted for 38% of total private sector credit by the first quarter of 2006, up from 28% in Q2 2001. Adding those together, total property-related credit makes up 66% of the total compared with 39% seven years ago.

Figure 7: Private sector credit extended to construction and real-estate activities



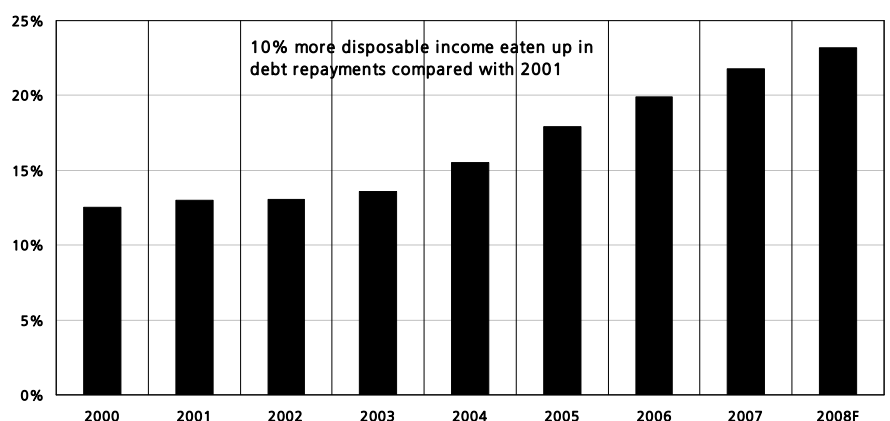
Source: Central Bank of Ireland

The counterpart to the surge in credit extended was the housing and commercial construction boom of 2002-2007. Residential investment reached 16% of GNP by the end of 2006, which compared with the euro area average of 6%. Available retail shopping space increased five-fold in that five-year period.

- Debt repayments eat up 23% of household incomes, 10 percentage points more than seven years ago

Households became tremendously indebted. Household debt to disposable income is now 175%, up from 77% in 2001. As that debt burden rose, so did the servicing cost – particularly as interest rates began to increase again from the end of 2005. For example, mortgage debt interest service has soared from €3.1bn in 2005 to €8.4bn this year. Including interest and principal repayments, total household debt service costs (secured and unsecured) will eat up 23% of disposable income this year versus 13% in 2001 (see Figure 8).

Figure 8: Household debt service ratio (debt repayments % of after-tax income)



Source: CSO

Last week's European Central Bank refi rate cut helps cash-strapped households. Most of it will be passed on to those with existing mortgages and personal loans. But the elevated level of capital repayments means that the boost to incomes across the economy is relatively small. Our

- New home sales significantly lag the pace of house completions

model suggests that 0.5% less income will be eaten up in debt repayments.

Latest property market trends not encouraging

Residential property has not been selling well for two years. This year, total sales of new homes may total 7,000-8,000 across the country. There are at least 40,000 new unsold homes on the market, and that unsold stock is increasing as the annualised pace of sales remains well below the rate of house completions. Housing starts are tracking a pace of close to 20,000, but that will take 9-12 months to translate into the same rate for completed stock. So new home sales must increase about three-fold by end-2009 to reach that crucial inflection point where sales exceed the flow of new properties onto the market.

Commercial property followed the residential market downturn about a year later in autumn 2007. Transactions are down by about 75% year-on-year in 2008. New supply of commercial units is declining, based on the PMI construction indicator. Yet that takes time to feed through to final product (the lag is about two years for office space). In addition, take-up is down by more than one-third year-on-year, so the vacancy rate is starting to rise. We remain particularly concerned about the near-20% slated rise in retail space (shopping centres and retail parks) planned for 2007-2009 in the light of the sharp contraction in retail spending. We assume that many projects will be delayed or shelved.

Asset prices are falling in both parts of the property market, but the lack of deals masks the true decline. This is reinforced by a pernicious tightening of credit supply across the economy as banks concentrate on their outstanding loans to troubled builders and developers. The economy is increasingly caught in a debt-deflationary bind.

- Lower interest rates will help, but real progress won't be made until prices fall to a clearing level and mortgage availability improves

It will help that interest rates may be slashed to as low as 2.5% by the end of 2009. Further aid may come if the government provides some initiative to increase the supply of credit outside of the traditional channel in the Budget. But real progress won't be made until property prices in both the residential and commercial markets drop to a clearing level and mortgage availability improves through the core banking and building society channel.

Government profit-and-loss account deteriorating due to collapse of property-related receipts and loss of spending control

The surge in tax revenue from property was another manifestation of the credit boom. This was genuine windfall tax revenue: it will not be repeated as another period of easy credit is unlikely for many years. By then, the taxation structure of the Irish property market may well be different and not as dependent on transactions (that issue has been referred to the Commission on Taxation).

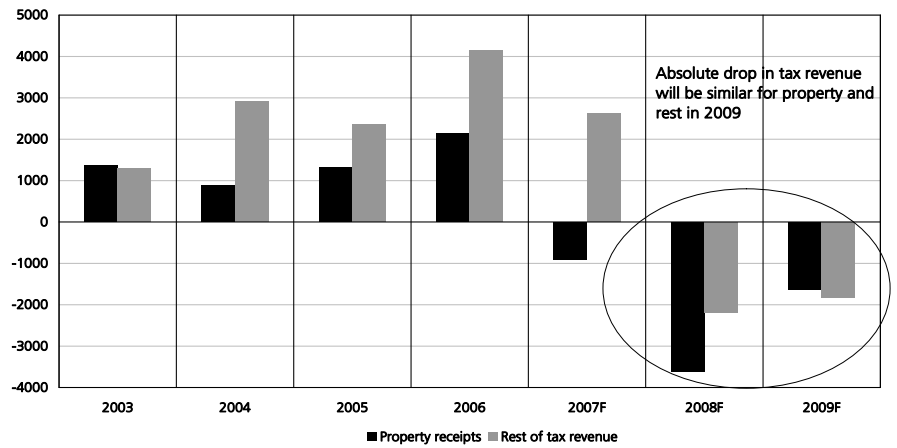
The current property tax system is highly geared to activity: stamp duty is a transaction on buying or selling of homes (except for first-time buyers) and commercial property; VAT is charged in the gross purchase price of a brand new home; and capital gains tax (CGT) is paid on the

realisation of a gain from a house or commercial property transaction. When transactions dry up, so does the revenue. Back in October 2006, we flagged the exposure of the public finances to a severe downturn in the property market (see: "[Irish property: government finances exposed to a correction](#)").

- Property-related tax revenue has collapsed

In the last two years alone, property revenue has simply collapsed. Total direct revenue from property – excluding indirect income tax (construction workers), VAT (furniture, electrical goods etc.) and corporation tax receipts (on construction firms) – dropped to €3.6bn this year from €8bn in 2006. The swing this year alone amounts to 2% of GDP (see Figure 9). By 2009, direct property revenue will be closer to the 1999 level of €1.6bn.

Figure 9: Annual change in tax revenue (€m)

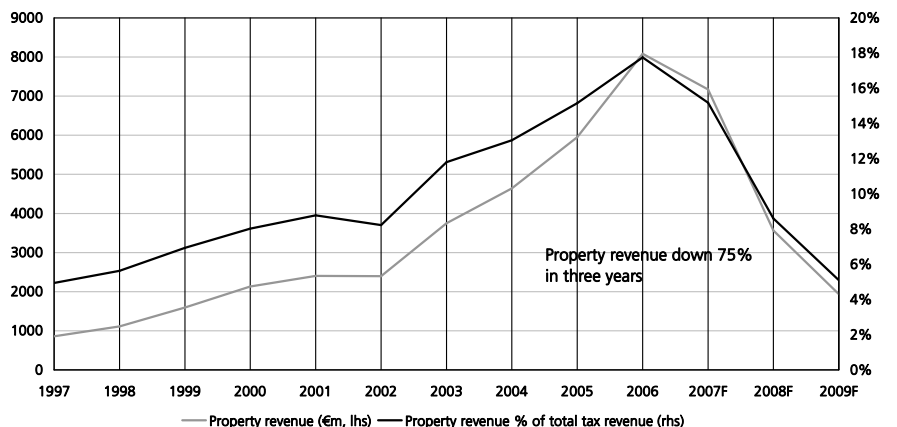


Source: Davy forecasts; Department of Finance

Dependence on this transitory revenue was staggering. Revenue from property jumped from 8% of total tax receipts in 2002 to 18% by 2006 (see Figure 10). Cue the plunge to 5% in 2009. Wrongly, it planned as if the revenue was permanent by hugely increasing the ratio of gross current expenditure to GNP. That ratio has jumped from 27% in 2001 to 34% in 2008, its highest point since 1987.

- Government financed the splurge in current expenditure on this unstable revenue base

Figure 10: Direct property tax revenue



Source: Davy estimates; Department of Finance; Revenue Commissioners

But the deep recession in construction has now had an indirect impact on the rest of the economy. Employment in service sectors linked to the property and building sectors is shrinking. Lower employment leads to a decline in consumer spending with a multiplier effect on the rest of the economy. As a result, tax revenue from all other sources is faltering. Property may account directly for about €5.25bn of our projected €8bn full-year revenue shortfall in 2008 (versus the official forecast) with the other tax headings responsible for the rest.

- Tax revenue likely to decline by 8%+ in 2009

Tax revenue to decline by more than the contraction in nominal GDP due to the geared unwind of the property bubble

Our tax revenue projections for 2009 are contained in Table 2. Once more, direct receipts related to the property market – stamp duty, VAT on new housing and CGT – may decline by almost half again due to falling asset prices and minimal transaction activity, albeit from a much lower base. Elsewhere, the decline in tax revenue is likely to be similar in absolute terms to 2008.

Table 2: Tax revenue forecasts

	2008		2009	
Customs	258	-3%	258	0%
Excise	5488	-6%	5323	-3%
Capital gains	1708	-45%	854	-50%
Capital acquisitions	314	-20%	251	-20%
Stamps	1752	-45%	1314	-25%
Income tax	13165	-3%	12902	-2%
Corporation tax	5432	-15%	4889	-10%
VAT	13337	-8%	12217	-8%
Total	41453	-12.3%	38007	-8.3%

Source: Davy estimates

Overall we forecast total tax revenue to shrink by more than 8%, or much faster than the 3% decline in nominal GDP, due to the geared impact of the investment slump. Note that in 2008, tax revenue will probably drop over 12%, yet nominal GDP may shrink by between 2% and 2.5%. Next year, the annual decline in tax will be almost evenly split in absolute terms between direct property-related revenue and the rest (see Figure 9). Social insurance receipts from employers and employees will falter somewhat in 2009 too as employment declines. That puts further pressure on the government's revenue line.

- Capital spending cut by 15%, but still 5.7% of GNP – the highest in Europe

Government spending estimates largely revealed: capital spending has been cut by 15%

The government released the broad outline of its revenue and expenditure estimates for 2009 on October 11th. All that is left for Budget day on October 14th is the amount by which it will index welfare payments and any potential tax changes. It estimates that the Irish General Government will record a deficit of 5.5% of GDP in 2008 and 7% in 2009 before any changes to social welfare rates or tax amendments in the Budget.

- No problem for Ireland to breach 3% deficit limit: exception made if an economy is in recession

We think that the opening position for the deficit will actually be about 9% of GDP, taking into account social welfare indexation. But the government probably plans to raise taxes to bring that deficit ratio down by at least 1 percentage point.

Note that the EC limit is 3% of GDP, but there is no problem in Ireland breaching that due to the new SGP rules announced in 2005. Any country can exceed the limit in a “severe economic downturn”, i.e. a period which sees a “negative annual GDP growth rate”. Ireland’s GDP will decline in both 2008 and 2009.

There are three crucial points to make about the estimates:

- Based on the “tax law in force at present”, i.e. before any possible tax changes on Tuesday, the government projects tax revenue of €41.2bn next year. That is €3.2bn, or 1.75% of GDP, higher than our forecast. In other words, its tax revenue forecasts are too optimistic and the actual GGB deficit is likely to be higher than its final estimate after additional spending and tax measures on October 14th.
- Capital spending has been cut by €1.25bn or 15% compared with the previous budgeted figure for 2009. That knocks about 0.8% directly off GNP but closer to 1% if multiplier effects are included. Nonetheless, capital spending will still be a massive 5.7% of GNP in 2009.
- We can work out the government’s GNP forecast by proxy. It has allocated €1.584bn, or 1% of its forecast GNP, to the National Pensions Reserve Fund for 2009. That implies an optimistic-looking nominal GNP of €158.4bn in 2009, some 4% higher than our new projection, and explains why the government’s tax revenue forecasts are higher than ours.

- Fiscal policy may not be as deflationary as we feared; depends on whether there are Budget day surprises

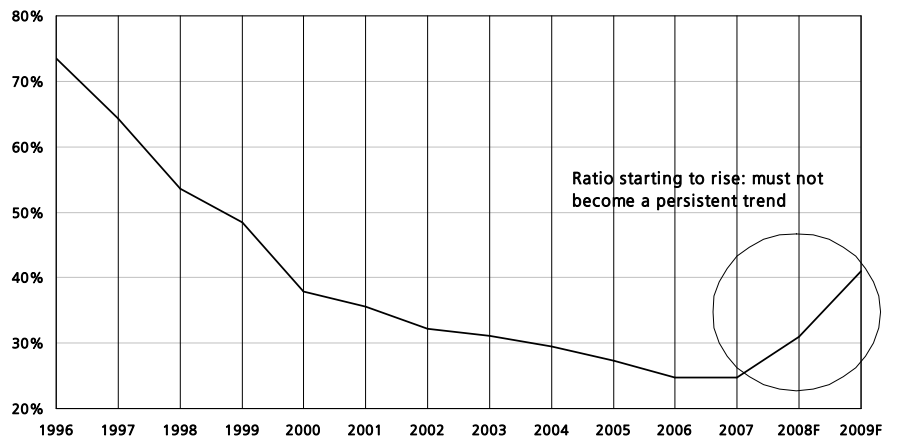
Importantly, this Budget may not be as deflationary as we had feared. Social welfare rates are likely to be indexed for inflation. Note that the social welfare outlay is set to expand anyway before any indexation to include a further 80,000 unemployment claimants. The estimates of October 11th also suggest no significant cuts in public sector numbers, even though we think actual reductions in staffing in line with employment trends in the private sector are justified. As a result, gross current government spending, excluding debt interest repayment and contributions to the EU budget, may rise by 3.5%. That would count as an increase in real terms as it eclipses our forecast 2% CPI inflation next year.

But there are likely to be some tax-raising measures, which will reduce real incomes. That is on top of the hit to the economy from lower capital spending in 2009.

Debt to GDP ratio to start rising; serious look at public sector employment levels is required to stop the rot

The upshot of rising deficits and the shrinkage of the real economy is that the general government debt to GDP ratio will increase significantly in 2008 and 2009. In 2007, the Irish debt ratio was the second-lowest in the euro area at 24.8%. Based on our estimates, the ratio will head towards 40% by end-2009. In total, the combined GGB borrowing requirement may exceed €25bn, and interest payments will continue to nudge up due to increased borrowing costs on top of the higher debt level. Yields on Irish government debt are set to increase, in part due to the contingent liability of the government guarantee of most borrowings of Irish banks.

Figure 11: General government debt % GDP



Source: Eurostat; Davy forecasts

- **Cut in public sector employment numbers inevitable to avoid secular deterioration in fiscal balance**

If the economy does not manage to return to potential growth of 3%+ in 2010 and 2011, rigorous control of current expenditure will be required to prevent a more damaging steady rise in the debt ratio. That has to include a serious look at the numbers employed in the public sector, especially at administrative levels, along with pay cuts.

RESEARCH	
Tel: +353 1 6148997 Fax:+353 1 6796341 Email: research@davy.ie	
Head of Research	
Barry Dixon	barry.dixon@davy.ie
Economic Research	
Chief Economist	
Rossa White	rossa.white@davy.ie
Equity Research	
Construction and building materials	
Tim Cahill	tim.cahill@davy.ie
Barry Dixon	barry.dixon@davy.ie
Florence O'Donoghue	florence.odonoghue@davy.ie
Robert Gardiner	robert.gardiner@davy.ie
Financials	
Scott Rankin	scott.rankin@davy.ie
Emer Lang	emer.lang@davy.ie
Niamh Hore	niamh.hore@davy.ie
Stephen Lyons	stephen.lyons@davy.ie
Food, pharmaceuticals and environment	
John O'Reilly	john.o'reilly@davy.ie
Jack Gorman	jack.gorman@davy.ie
Barry Gallagher	barry.gallagher@davy.ie
Resources	
Job Langbroek	job.langbroek@davy.ie
Caren Crowley	caren.crowley@davy.ie
James McCullough	james.mccullough@davy.ie
Travel, services, media and technology	
Stephen Furlong	stephen.furlong@davy.ie
David Jennings	david.jennings@davy.ie
Ivan Skelly	ivan.skelly@davy.ie
Research Operations	
Research Operations Manager	
Aidan Beatty	aidan.beatty@davy.ie
Editor	
Orla O'Flynn	orla.o'flynn@davy.ie
Publishing	
Deirdre Dunne	deirdre.dunne@davy.ie
Brid Frain	brid.frain@davy.ie
Administration	
Zara Copeland	zara.copeland@davy.ie
Research Support Unit	
Research Support Manager	
Jim O'Neill	jim.oneill@davy.ie
Data Product and System Developer	
Laura Chambers	laura.chambers@davy.ie
Research Assistants	
Órla Ní Fhátharta	orla.nifhatharta@davy.ie
Jenny Campbell	jenny.campbell@davy.ie

INSTITUTIONAL EQUITY SALES TEAM	
Tel: +353 1 61428167 Fax:+353 1 6796423 Email: sales@davy.ie	
Head of Equity Sales	
David Smith	david.smith@davy.ie
Equity Sales	
Brendan Byron	brendan.byron@davy.ie
Kieran Canny	kieran.canny@davy.ie
Cathal Carroll	cathal.carroll@davy.ie
Alan Daly	alan.daly@davy.ie
Simon Geelon	simon.geelon@davy.ie
David Haslam	david.haslam@davy.ie
Ronan Hurley	ronan.hurley@davy.ie
Tomás Jones	tomas.jones@davy.ie
Cathal Kenny	cathal.kenny@davy.ie
Mannie Larchet	mannie.larchet@davy.ie
Seamus Murphy	seamus.murphy@davy.ie
Equity Trading	
Stephen Church	stephen.church@davy.ie
Fran O'Connor	fran.o'connor@davy.ie
Andrew Arnott	andrew.arnott@davy.ie
John Gleeson	john.gleeson@davy.ie
Ivan Cummins	ivan.cummins@davy.ie
Equity Sales Trading	
Dermot Farrelly	dermot.farrelly@davy.ie
Turlough Carolan	turlough.carolan@davy.ie
Dara Cosgrave	dara.cosgrave@davy.ie
Aidan McSweeney	aidan.mcsweeney@davy.ie
Colin Redmond	colin.redmond@davy.ie
Geoff McEvoy	geoff.mcevoy@davy.ie
Corporate Broking	
Head of Corporate Broking	
Paul Burke	paul.burke@davy.ie
Executives	
Eavan Gannon	eavan.gannon@davy.ie
Rosslyn Teskey	rosslyn.teskey@davy.ie
Niall Jones	niall.jones@davy.ie
Paula Mulhern	paula.mulhern@davy.ie
Share Register Analysis	
Barry Gibney	barry.gibney@davy.ie
Kevin Gilleece	kevin.gilleece@davy.ie
Administration	
Lisa Gregan	lisa.gregan@davy.ie
Lesley Riley	lesley.riley@davy.ie
Lynda Rogers	linda.rogers@davy.ie

Important disclosures

Analyst Certification

I, Rossa White hereby certify that: (1) the views expressed in this research report accurately reflect my personal views about any or all of the subject securities or issuers referred to in this report and (2) no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed in this report.

Regulatory and other important information

Davy is regulated by the Financial Regulator and is a member of the Irish Stock Exchange and London Stock Exchange. Davy is authorised by the Irish Financial Regulator and regulated by the Financial Services Authority for the conduct of business in the UK. No part of this document is to be reproduced without our written permission. This publication is solely for information purposes and does not constitute an offer or solicitation to buy or sell securities. This document does not constitute investment advice and has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The securities/strategy discussed in this report may not be suitable or appropriate for all investors. The value of investments can fall as well as rise and there is no guarantee that investors will receive back their capital invested. Past performance and simulated performance is not a reliable guide to future performance. Projected returns are estimates only and are not a reliable guide to the future performance of this investment. Forecasted returns depend on assumptions that involve subjective judgment and on analysis that may or may not be correct. Any information related to the tax status of the securities discussed herein is not intended to provide tax advice or to be used as tax advice. You should consult your tax adviser about the rules that apply in your individual circumstances.

This document has been prepared and issued by Davy on the basis of publicly available information, internally developed data and other sources believed to be reliable. Whilst all reasonable care has been taken in the preparation of this document, we do not guarantee the accuracy or completeness of the information contained herein. Any opinion expressed (including estimates and forecasts) may be subject to change without notice. We or any of our connected or affiliated companies or their employees may have a position in any of the securities or may have provided, within the last twelve months, significant advice or investment services in relation to any of the securities or related investments referred to in this document.

Conflicts of interest

Our conflicts of interest management policy is available at www.davy.ie/ConflictsOfInterest.

US Securities Exchange Act, 1934

This report is only distributed in the US to major institutional investors as defined by S15a-6 of the Securities Exchange Act, 1934 as amended. By accepting this report, a US recipient warrants that it is a major institutional investor as defined and shall not distribute or provide this report or any part thereof, to any other person.

Distribution of research to clients of Davy Securities in the US

Davy Securities distributes third-party research produced by its affiliate, J & E Davy.

Davy Securities is a member of FINRA and SIPC and is regulated by the Financial Regulator.

Confidentiality and copyright statement

Davy, Research Department, Davy House, 49 Dawson St., Dublin 2, Ireland.

Confidential © Davy 2008.