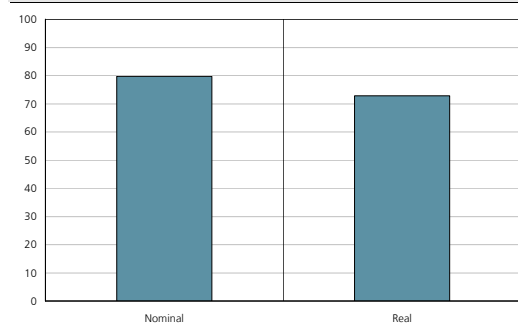


Rossa White

rossa.white@davy.ie / +353 1 6148770

#### Investment in dwellings, retail and transportation as % of increase in total capital stock, 2000-2008



Source: Davy; CSO

Davy Research

February 19, 2010

DAVY

Research Report: Irish economy

## Irish macro comment

### Years of high income largely wasted

**Ireland ranks reasonably well in income tables, but it is not a wealthy country; high income in 2000-2008 largely wasted**

- Ireland still fares reasonably well on income per capita tables. At the end of 2009, it was probably ranked eighth in the euro area. But years of high income must be invested wisely for a country to become wealthy.
- Estimates of the capital stock show Ireland lagging behind. Irish residents would hardly claim that this country is wealthier than other small euro-area countries such as Finland or Belgium. Infrastructure – roads, rail, schools, hospitals and telecommunications – is far superior in those nations, even though Ireland is not far behind in the income per capita table.
- Ireland misallocated investment in 2000-2008: infrastructure should be far better than it is today.

**Capital stock soared by 157% in real terms in 2000-2008, but housing accounted for almost two-thirds of increase**

- On the face of it, Ireland's capital stock increased hugely in 2000-2008. But that bubble period was characterised by rampant investment in housing and other buildings. Housing alone accounted for 63% of the net investment in our capital stock.
- The upgrading of road infrastructure was the greatest triumph, boosting productivity in the economy. In contrast, the private sector productive capital stock (excluding housing, public sector and semi-states) rose by only 26% in eight years. Under-investment in the communications network and software is a concern.

**Physical capital stock ignores the country's greatest strength: human capital investment must remain a priority**

- Ireland still has the second-highest number of graduates in its 25-34 age cohort in the EU.
- Furthermore, the quality of human capital probably has not been diluted too much by emigration of low-skilled workers. The country must continue to make investment in education a salient priority.

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

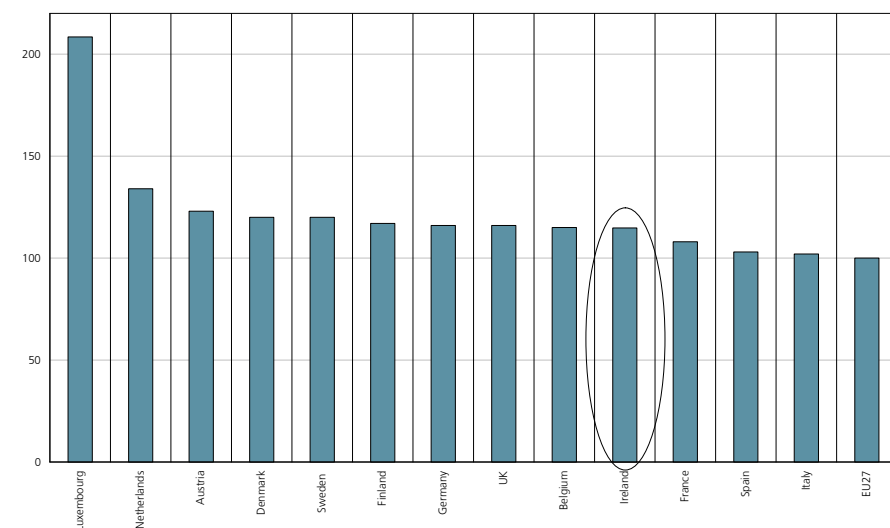
Davy is regulated by the Financial Regulator and is a member of the Irish Stock Exchange, the London Stock Exchange and Euronext. Davy is authorised by the Irish Financial Regulator and regulated by the Financial Services Authority for the conduct of business in the UK. All prices as of close of previous 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.

- One of the great misconceptions about Ireland is that it is a wealthy country

## Years of high income largely wasted

One of the great misconceptions about Ireland is that it is a wealthy country. Ireland relentlessly climbed the income per capita table year after year from 1994 on, but it has slipped back below mid-division in the euro area following a savage recession. Yet it was never wealthy: those years of high income were largely wasted.

Figure 1: GNP per capita (at purchasing power standards, EU 27 average = 100), 2008



Source: Davy; Eurostat

GNP per capita is an income measure, but measures of wealth are more difficult to grasp. Probably the best way to compare the wealth of countries is to look at the capital stock. Years of high income can be turned into physical wealth if invested properly. Let's take three small nations as an example: Belgium, Finland and Ireland. The three are closely matched in the euro-area income per capita table, albeit that Ireland slipped behind in 2009. But no Irish resident who has visited Belgium or Finland would have the audacity to claim that this country is wealthier. Transport infrastructure is vastly superior in those countries, as is the telecommunications network, and public services are delivered from higher-spec schools and hospitals.

### Capital stock soared from 2000 onwards, but housing accounted for almost two-thirds of increase

- Capital was not allocated well from 2000 onwards

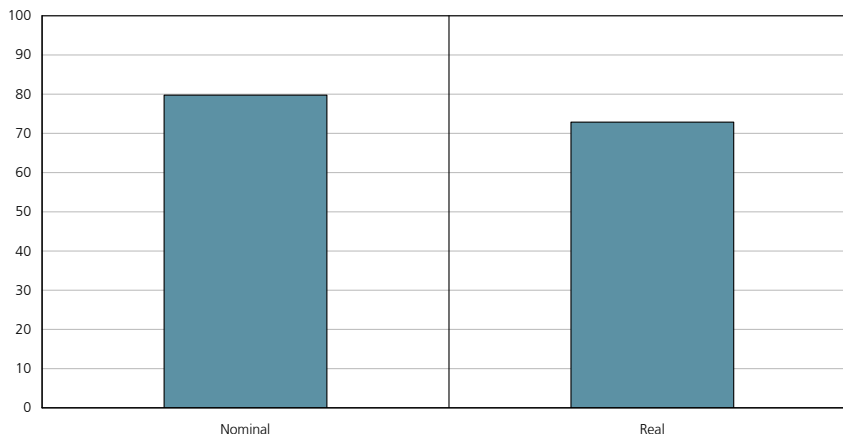
The Irish Central Statistics Office recently added a valuable new release to its database entitled: 'Estimates of the Capital Stock of Fixed Assets'. It is finally possible to quantify Ireland's stock of wealth and where capital is allocated. Unfortunately, capital was not allocated well from 2000 onwards.

- In 2000, the unproductive capital stock exceeded the productive stock by €14bn; by 2008, that gap was a whopping €118bn

On the face of it, Ireland's capital stock soared from 2000 onwards. In the eight years to 2008, the net capital stock of the state had more than doubled from €222bn to €477bn. But, as we know only too well, too much of it went into that unproductive asset: housing. The net capital stock of dwellings jumped from €118bn to €302.5bn, an increase of 156%. Ex-housing, the productive capital stock rose by only €70bn to

€174.4bn. It is remarkable to think that in 2000, the unproductive capital stock exceeded the productive stock by €14bn. By 2008, that gap was a whopping €118bn!

**Figure 2: Investment in dwellings, retail and transportation as % of increase in total capital stock, 2000-2008**



Source: Davy; CSO

Yet the story doesn't end there. Note again that in cash terms, the productive capital stock increased by €70bn or two-thirds in eight years to 2008. But another chunk of that net investment, roughly €20bn, was in the import-intensive area of retail, transportation and storage (most of this accounted for by structures). Of course, given the collapse in consumer spending (which is now back to 2005 levels) spare capacity in that area of the economy is abundant. It is also mainly foreign-owned and not technologically advanced – not an area into which we should have been channelling a significant proportion of our high income from 2000-2008.

**Upgrading of road infrastructure is greatest triumph, but investment by private sector in 'core' productive stock pitiful**

Perhaps the greatest legacy of the bubble period of 2000-2008 is our road infrastructure. The value of our roads leaped from €13bn to €27.5bn. That accounted for almost 30% of the increase in our 'core' productive capital stock (i.e. capital stock excluding dwellings, retail and transportation/storage). The reduction in journey times and greater certainty of planning have helped to significantly boost output per capita across the economy.

But it is interesting to note that most of the rest of the increase in our 'core' productive capital stock was related to the state or semi-state sectors. It was not driven by private enterprise.

Of the €50bn rise in 2000-2008:

- €14.5bn is manifested in roads;
- €9bn went into schools, hospitals and buildings and equipment related to public administration;
- €7bn was invested by the semi-state companies that dominate electricity and gas supply;

• Perhaps the greatest legacy of the bubble period of 2000-2008 is our road infrastructure

– €3bn was pumped into water works, waste management and sewerage.

That leaves a pitiful €17bn investment by the private sector in 'core' productive buildings, equipment and new technologies. It gets worse. The CSO also produces the data in real (inflation-adjusted) terms. Private sector net investment in the capital stock – apart from retail, storage, transportation and housebuilding – was only €14.5bn in the eight years to 2008 (in constant 2007 prices). That equates to an increase in the volume of the capital stock of 26%.

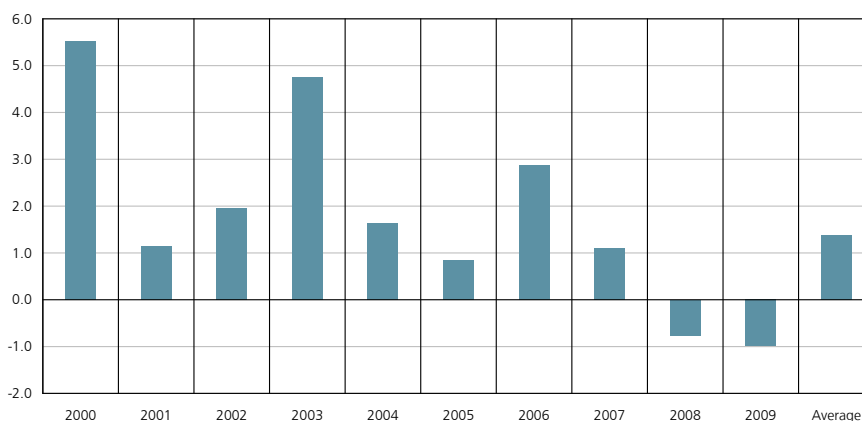
- Private sector productive capital stock rose by only 26% in eight years

- The glut of investment in the wrong places has meant little advance in technological capacity

### Under-investment in communications and software

The problem with the glut of investment in the wrong places is that our technological capacity has not advanced much over the last decade. Unless we re-invest, it will harm productivity (which admittedly held up pretty well in the bubble – see Figure 3) in the medium term. The CSO also slices the data by asset across the whole capital stock. Worryingly, intangible fixed assets rose by only 3.6% in real terms in 2000-2008. Within that, the stock of computer software actually declined. On the positive side, office hardware more than doubled in volume. Transport equipment rose by 70%, but how much of this was tied up in private cars that provide little boost to economy-wide productivity and light vehicles that were once used by the construction sector?

Figure 3: Productivity (GNP per man hour worked, % change annual average)



Source: Davy, CSO

### Physical capital stock ignores country's greatest strength – human capital

This analysis of our capital stock has one glaring omission: human capital. Looking to the medium term, this is Ireland's greatest strength. The economy has the highest number of graduates in the 25-34 population in the EU-27, with the exception of Cyprus. That proportion (and its average quality) may depreciate somewhat if recovery does not take hold and emigration accelerates. But so far the outflow through emigration has been hyped while ignoring the mix. First, net inward migration has turned negative mainly because immigration (people coming to Ireland) has collapsed rather than due to a surge in

- Ireland's greatest strength in the medium term is its human capital

- Investment in education must remain the salient priority

emigration (people leaving). Second, a high proportion of those who have left are low-skilled and worked in construction where employment has more than halved. Construction, by its very nature, is a highly labour-intensive and low-productivity industry. Workers tend to be mobile, and emigration from this sector will not particularly dilute the quality of human capital in Ireland. Moreover, the nascent recovery of the international-traded sectors will keep many of our graduates at home. Longer-term, investment in education must remain the salient priority.

# 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.

## Investment ratings definitions

Davy ratings are indicators of the expected performance of the stock relative to its sector index (FTSE E300) over the next 12 months. At times, the performance might fall outside the general ranges stated below due to near-term events, market conditions, stock volatility or – in some cases – company-specific issues. Research reports and ratings should not be relied upon as individual investment advice. As always, an investor's decision to buy or sell a security must depend on individual circumstances, including existing holdings, time horizons and risk tolerance.

**Our ratings are based on the following parameters:**

**Outperform:** Outperforms the relevant E300 sector by 10% or more over the next 12 months.

**Neutral:** Performs in-line with the relevant E300 sector (+/-10%) over the next 12 months.

**Underperform:** Underperforms the relevant E300 sector by 10% or more over the next 12 months.

**Under Review:** Rating is actively under review.

**Suspended:** Rating is suspended until further notice.

**Restricted:** The rating has been removed in accordance with Davy policy and/or applicable law and regulations where Davy is engaged in an investment banking transaction and in certain other circumstances.

## Distribution of ratings/investment banking relationships

Rating	Count	Percent	Investment banking services/Past 12 months	
			Count	Percent
Outperform	45	55	25	64
Neutral	28	34	10	25
Underperform	5	6	1	2
Under Review	1	1	1	2
Suspended	0	0	0	0
Restricted	2	2	2	5

This is a summary of Davy ratings for all companies under research coverage, including those companies under coverage to which Davy has provided material investment banking services in the previous 12 months. This summary is updated on a quarterly basis. The term 'material investment banking services' includes Davy acting as broker as well as the provision of corporate finance services, such as underwriting and managing or advising on a public offer.

## Regulatory and other important information

Davy is regulated by the Financial Regulator and is a member of the Irish Stock Exchange, the London Stock Exchange and Euronext. 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.

While reasonable care has been taken in the preparation of the information contained in this document, no warranty or representation, express or implied, is or will be provided by Davy or any of its shareholders, subsidiaries or affiliated entities or any person, firm or body corporate under its control or under common control or by any of their respective directors, officers, employees, agents, advisers and representatives, all of whom expressly disclaim any and all liability for the contents of, or omissions from, this document, the information or opinions on which it is based and/or whether it is a reasonable summary of the securities in this document and for any other written or oral communication transmitted or made available to the recipient or any of its officers, employees, agents or representatives.

Neither Davy nor any of its shareholders, subsidiaries, affiliated entities or any person, firm or body corporate under its control or under common control or their respective directors, officers, agents, employees, advisors, representatives or any associated entities (each an "Indemnified Party") will be responsible or liable for any costs, losses or expenses incurred by investors in connection with the information contained in this document. The investor indemnifies and holds harmless Davy and each Indemnified Party for any losses, liabilities or claims, joint or several, howsoever arising, except upon such Indemnified Party's bad faith or gross negligence.

## Share ownership policy

Davy allows analysts to own shares in companies they issue recommendations on, subject to strict compliance with our internal rules governing own-account trading by staff members.

We are satisfied that our internal policy on share ownership does not compromise the objectivity of analysts in issuing recommendations.

## **Conflicts of interest**

Our conflicts of interest management policy is available at [www.davy.ie/ConflictsOfInterest](http://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 2010.