

Surplus Energy Economics

How the economy REALLY works – Tim Morgan

#134: An extremity of risk

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A SEEDS VIEW OF THE IRISH ECONOMY

Last year, GDP per capita in the Republic of Ireland was €62,560, far higher than in Germany (€39,450) or the Netherlands (€42,820), let alone France (€35,310).

If you find this rather hard to take seriously, you're right. And, whilst you're in disbelief mode, you should forget any idea that Ireland has made a spectacular recovery since the 2008 global financial crisis (GFC I), or that the country is less at risk now than it was back then. Likewise, you might note that Ireland is at even greater risk from a *mishandled* "Brexit" than is Britain herself (though you'd never guess this from watching the course of the negotiations).

Let's clear the decks by getting the official numbers out of the way first. In 2017, Ireland reported GDP of €296 billion, up 50% since 2007 (€197bn at 2017 values). The per capita equivalent for last year was €62,560, a real-terms improvement of 41% over a decade.

At the end of last year, debt totalled €938bn (or a hefty 317% of GDP) – lower than in 2016 (€1,021bn) but still €449bn (92%) higher than it was in 2007, on the eve of the 2008 global financial crisis (GFC I). Financial assets (a key measure of the size of a country's banking system) totalled 1751% of GDP at the end of 2016, but might be down to about 1500% – or €4.4tn – now. The latter compares with €3.44tn in 2008, the most recent year for which data is available.

Even on a reported basis, there are some negatives here. Quantitatively, both debt and financial assets are a lot bigger now than they were when GFC I struck. Neither a debt ratio of 317% of GDP, nor banking exposure anywhere near 1500%, is remotely comfortable. The saving grace, of course, is GDP, and the robust pace at which it seems to be growing.

Put simply, we can be moderately relaxed about Ireland if – but **only** if – we accept recorded GDP as an accurate reflection of economic output and prosperity, which are the criteria which really determine the ability of an economy to carry any given level of debt or banking exposure.

Exposing the reality

Unfortunately, official GDP isn't a meaningful reflection of either. According to SEEDS, GDP (of €296bn) seriously overstates real economic output (€193bn), and is dramatically higher than prosperity (just €173bn).

Obviously, such a drastic overstatement of output means that reported rates of growth are correspondingly meaningless. More seriously, it disguises exposure ratios that are drastically worse than official numbers which, even in themselves, are risky enough. For instance, debt may be 'only' 317% of GDP, but equates to about 544% of *prosperity*. More seriously still, financial assets rise from an estimated 1493% of GDP to 2560% of prosperity, a number which, as well as being truly scary – and unmatched by any other significant economy – means that Ireland has bloated banking exposure from which seemingly there can be no escape.

Put bluntly, Ireland is one setback away from disaster – just as both Britain and her European partners are in the process of crystallising “Brexit” risk.....

Seeing through the numbers

How, then, can GDP so drastically misrepresent Ireland's economic output, her prosperity and her resilience in the event of a shock?

There are three main explanations for the divergence between Irish GDP and the country's prosperity, as the latter is calculated by SEEDS.

First, the basis on which Ireland calculates GDP was changed in 2015, creating single-year growth of more than 25%, and helping to push reported GDP per capita to levels which are, frankly, ludicrous.

Second, and in keeping with the widespread practice of “credit adventurism”, Ireland has pushed huge amounts of debt into the system, boosting recorded activity in ways which are wholly a function of an unsustainable expansion in credit.

Third - and particularly seriously where Ireland is concerned - reported GDP takes no account of the trend energy cost of energy (ECoE), a trend whose exponential rate of increase has already put Western prosperity growth into reverse.

Leprechauns and lenders

Back in 2015, Ireland adopted a new method for incorporating into GDP the activities of the multinational corporations which form such a big component of the Irish economy. Reflecting this, real GDP (expressed at 2017 values) increased by 25.5%, or €53bn, in a single year, from €208bn in 2014 to €261bn in 2015.

Dubbed “leprechaun economics” by Paul Krugman, this methodological change remains controversial. It is seldom noted that, reflecting this change, the €53bn increase in GDP was accompanied by a much bigger (€204bn) rise in debt, with PNFC (private non-financial corporate) indebtedness actually increasing by €242bn in a year in which both government and households were deleveraging.

A side-effect of “leprechaun economics” was a small *decrease* in the ratio of debt-to-GDP, which happened because reported GDP grew by slightly more (25.4%) than the increase in debt (24.2%). When debt expands by this much – and when almost €4 of debt is added for each €1 of claimed “growth” – it is clear, beyond a doubt, that any apparent *fall* in this widely-watched ratio has to amount to a mathematical quirk.

“Leprechaun economics” aside, the reported increase of 50% in GDP between 2007 and 2017 equated to incremental activity of €99bn, a number dwarfed by the €449bn (92%) escalation in debt over the same period.

Borrowing just over €4.50 for each €1 of “growth” is not a particularly outlandish number by the standards of Western economies (though it remains a lot higher than a global average of 3.3:1). Even so, it is clear that, in addition to helpful statistical restatement, Ireland has boosted GDP through a process of spending very large amounts of borrowed money.

This process of credit-created “growth” did not start in 2007, of course. In the seven years preceding GFC I, growth (at 2017 values) of €62bn (46%) in Irish GDP was accompanied by an expansion in debt of €267bn (120%), meaning that Ireland was already habituated to borrowing well over €4 for each incremental euro of “growth”.

According to SEEDS, GDP in 2007 (of €197bn) already materially overstated ‘clean’ (credit-adjusted) output of €181bn. By 2017, the gap had widened to the point where reported GDP (of €296bn) overstated clean output (€193bn) by more than 50%.

And this is even before we take the all-important matter of energy trends into account.

The energy dimension

As regular readers will know, the central working premise of surplus energy economics is that, ultimately, the economy is an energy system, *not* a financial one – money and credit are simply *claims* on the output of the energy-driven economy.

Rather than the absolute quantity of energy available, the really critical issue is how much of any energy accessed is consumed in the access process. Put simply, the higher this cost is, the less energy that remains for all purposes other than the supply of energy itself.

Globally, ECoE – the energy cost of energy – is on an exponentially rising trend, having climbed from 4% in 2000 to 5.4% in 2007 (just before GFC I) and 7.7% last year. Across developed economies as a group, ECoE has already risen to levels high enough to put previous growth in prosperity into reverse.

This, ultimately, is why these economies have adopted credit and monetary *adventurism* in an ultimately futile attempt to maintain a semblance of ‘growth as usual’.

Ireland is more affected than most by the relentless escalation in ECoEs, mainly because of the paucity of indigenous energy resources. Last year, consumption of energy totalled 16.8 million tonnes of oil equivalent, but production was just 3.6 mmtoe, forcing Ireland to rely on imports for almost 80% of her primary energy needs. All of Ireland’s petroleum and gas requirements are imported, making the country particularly exposed both to rising world ECoEs and to energy supply risk.

According to SEEDS, Ireland’s ECoE as long ago as 2000 (4.8%) was already higher than the global average (4.0%). By 2007, this differential had widened, to 6.7% versus a global 5.4%. Today, Ireland’s trend ECoE is put at 11.2%, far higher than a world average of 8.0%.

In other words, the gap keeps getting worse.

Levels of ECoE above 10% make growth in prosperity almost impossible, and Ireland’s high ECoEs are already having a swingeing impact on prosperity. Deducting 2017 ECoE (of 10.7%) from clean GDP of €193bn leaves aggregate prosperity at just €173bn. This number is barely (2%) higher than it was in 2007, but population numbers increased by 6.4% between those years.

This means that prosperity per person last year was €36,510, nowhere remotely near reported GDP per capita of €62,560. Irish prosperity actually peaked in 2005, at €38,780, and it is a sobering thought that debt per capita is 134% (€114,000) higher

The extremity of risk

What we have seen is that the Irish economy is an extreme, amplified version of adverse trends observable across most of the developed economies. For over a decade, high and rising energy costs have been driving prosperity downwards – indeed, Ireland is fortunate that the post-peak fall in prosperity has been just 5.9%, rather than the 10.8% decline experienced by Britain, or the 12.3% fall suffered by Italy. At the same time, debt has soared.

Quite aside from the “leprechaun” recalibration of GDP, this relentless weakening in prosperity has been masked from reported numbers by the infusion of huge amounts of credit-funded activity into the Irish economy. Since prosperity hit its peak in 2005, aggregate debt has expanded from €356bn to €938bn, and only in the last two years has there been evidence of meaningful efforts at deleveraging. How far these efforts can continue – with prosperity deteriorating at rates of between 0.6% and 0.8% annually – has to be conjectural.

It is only when *prosperity* (rather than increasingly meaningless GDP) is used as the denominator that the full magnitude of Ireland’s financial risk becomes apparent. Debt of €938bn might be ‘only’ 317% of GDP, but it is 544% of prosperity. More disturbingly still, banking exposure, as measured by financial assets, now stands at an estimated (and truly frightening) 2560% of prosperity.

With a per-capita share of debt of more than €198,000 – and with prosperity continuing to erode – the very last thing that Irish citizens need now is a “Brexit” process mishandled by British vacillation and European posturing.