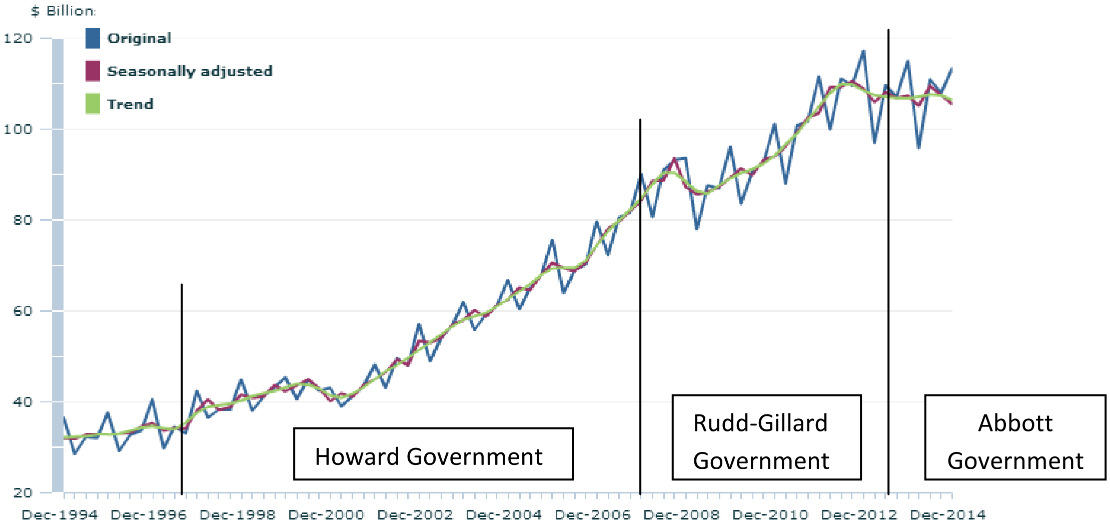
Why Is the Weak Trend in Infrastructure Spending in Australia Becoming a Worry?

Peter Martin stated in the *Sydney Morning Herald*[1] that "after months of hinting the Abbott government isn't doing enough to lift the economy, Glenn Stevens has come right out and said so." This is not a direct quote from the Governor of the Reserve Bank of Australia (he was somewhat more diplomatic) but it nevertheless conveys much of Stevens' apparent intention in his speech to the Economic Society of Australia.[2] The purpose of this comment is to add additional clarity and detail to the question of deteriorating investment in Australia, especially for infrastructure development. The comment relies on information from the Australian Bureau of Statistics, some of which was conveniently compiled by the Australian Parliamentary Budget Office, and data from the World Economic Forum. The comments are organised in a Q &A format.

Has Australia's investment in total capital formation declined in recent years?

A decline is not yet apparent, but the growth in private and public capital formation[3] has clearly flattened out, as can be seen from Chart 1 below.

Chart 1: Total Capital Formation in Australia (Private and Public)
(in constant prices)



Source: The chart is a modified version of the chart from the Australian Bureau of Statistics at http://www.abs.gov.au/AusStats/ABS@.nsf/MF/5232.0.

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[1] Peter Martin, "Reserve Bank Governor Glenn Stevens: More Infrastructure Spending Now, Please," *The Sydney Morning Herald*, 11 June 2015. Available at: http://www.smh.com.au/federal-politics/political-news/reserve-bank-governor-glenn-stevens-more-infrastructure-spending-now-please-20150610-ghl1ri.html.

[2] Glenn Stevens, "Economic Conditions and Prospects: Creating the Upside," Address to the Economic Society of Australia in Brisbane, 10 June 2015 at: http://www.rba.gov.au/speeches/2015/sp-gov-2015-06-10.html.

[3] Total capital formation is composed of three components: general government and private and public corporations. Dwellings, other buildings and structures plus machinery and equipment comprised more than 80 per cent of the total in 2000-01. Refer to Australian Bureau of Statistics, "Measuring Australia's Progress – 2002," June 2002. Available at: http://www.abs.gov.au/ausstats/abs@.nsf/0/D24411E974BDA313CA256BDC0012241A?opendocument.

Total capital formation rose steadily after 2001, reflecting in part the benefits of the mining boom in Australia. The trend continued during the early part of the Rudd government with acceleration, after seasonal adjustment, resulting from the fiscal stimulus of that government. The seasonally unadjusted figures reached a peak and then fell sharply shortly before the election in September 2013. The trend remained virtually unchanged since then.

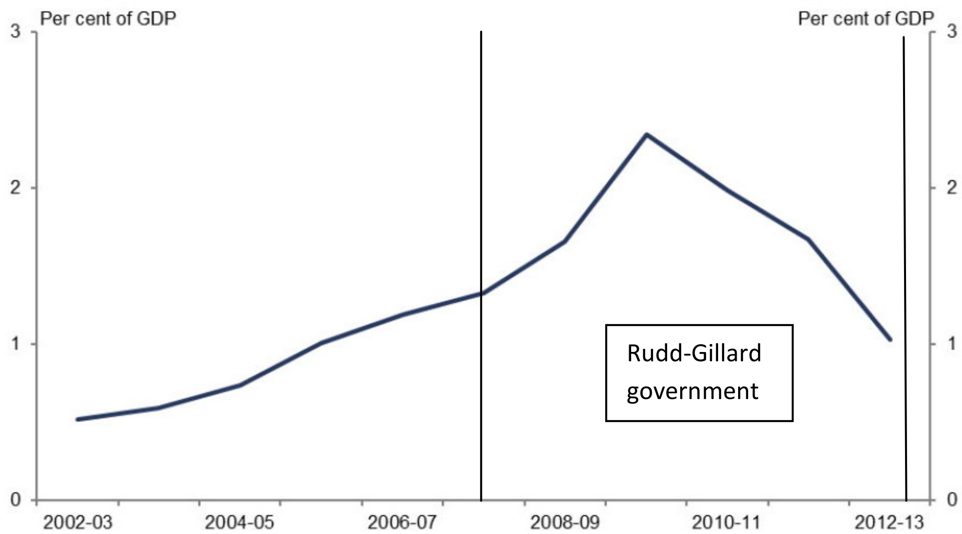
Who should be held accountable for the absence of growth in total capital formation since the first half of 2012?

Accountability is apparently widespread. The break in the growth path began during the term of the Rudd-Gillard government, but the pressure to ignore (or postpone) capital expenditure by the commonwealth government, in order to reduce the "mountain" of debt created by the fiscal stimulus, began when Tony Abbot became leader of the opposition. Additionally, it could be suggested that the growth path during the Howard years was too steep to be sustained. Both businesses and households may have fallen victim to the wealth euphoria that is often associated with rising asset values, and fed the rise.

Who is in better position to do something about the current situation?

Chart 2 shows that net capital investment by all levels of government reached a peak in 2009-2010, well before the peak in the total capital formation. As can be noted from the Australian Bureau of Statistics publication cited in footnote 3, private contributions to real gross fixed capital formation per capita is many times greater than the combined contributions of general government plus government corporations.

Chart 2: Net Capital Investment across All Levels of Government

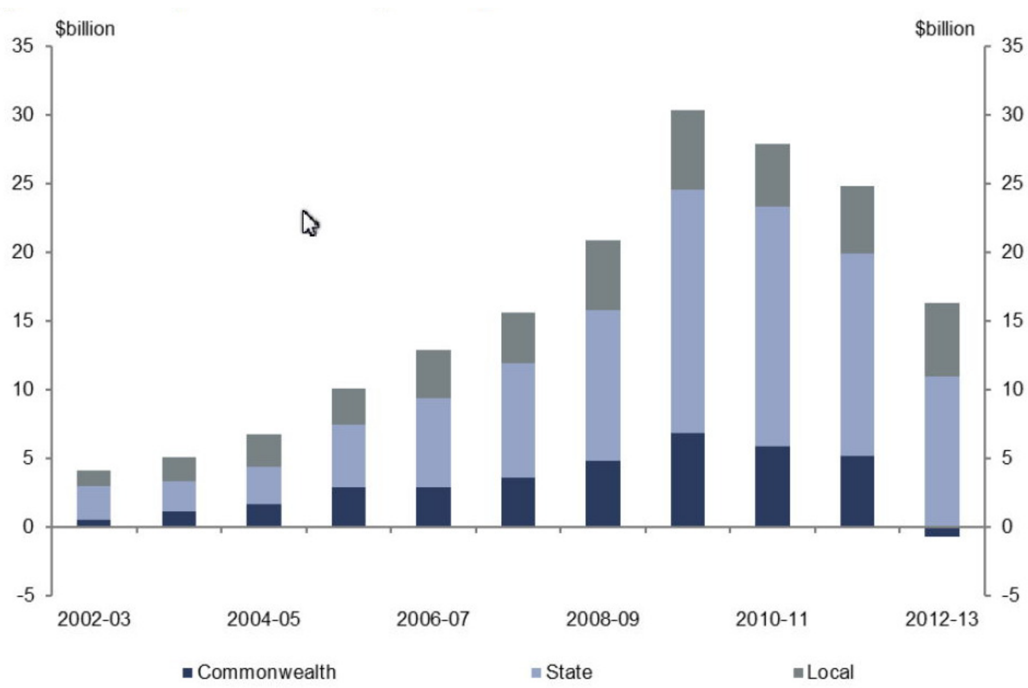


Source: The chart is a modified version of Figure 4.1 (page 36) of Commonwealth of Australia, Australian Parliamentary Budget Office, "National Fiscal Trends," Report No. 01/2015, April 2015, Chapter 4. Available online at: http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/research_reports.

Consequently a return to the long-term trend in total capital formation will require a substantial increase in capital investment by the private sector. An important point made by Glenn Stevens in his Brisbane speech (see footnote 2 for its citation) is that both businesses and households are ill-positioned at the moment to be the first to ante-up with increased investment.

This leaves scope for government investment since (1) there should be no concern about crowding out private investment as this is precluded by the unwillingness of businesses to invest when there is no reasonable assurance that the output from the new investment will be sold, and (2) from Chart 3 it is clear the net capital investment by the commonwealth government during fiscal year 2012-2013 was negative, indicating that its burden in helping to maintain the nation's net capital investment was shifted to other contributors.

Chart 3: Net Capital Investment by Levels of Government

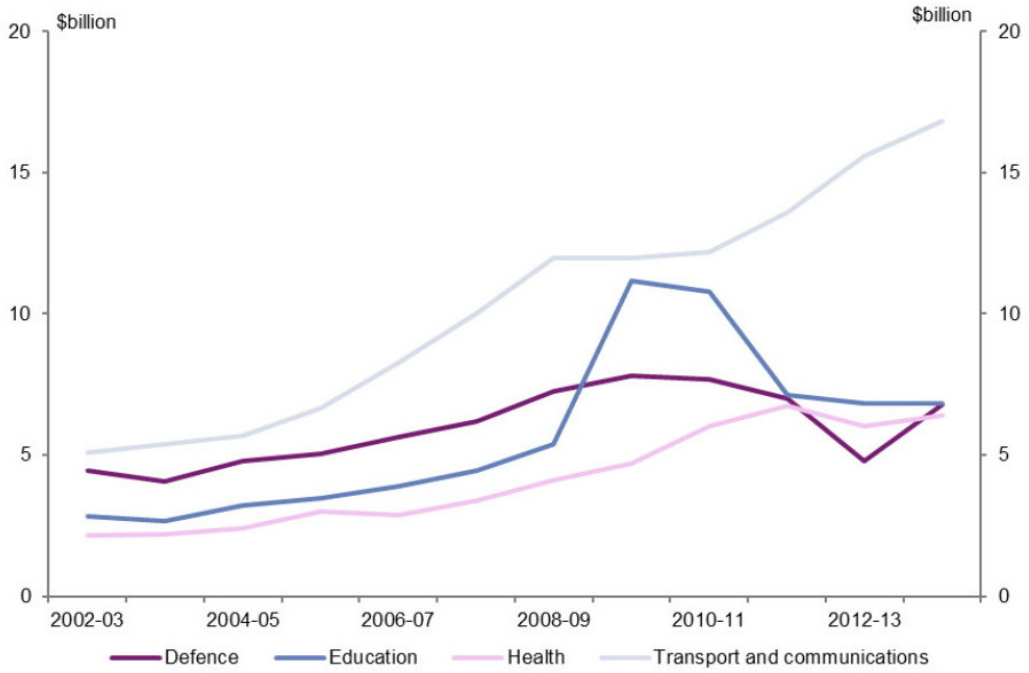


Source: As per Chart 2 above from source-figure 4-3, page 38.

What forms of government investment expenditure are likely to make a greater contribution?

The Parliamentary Budget Office declared that consistent data on net capital according to function across all levels of government are not available, so gross fixed capital formation is used instead. The latter is expenditure on new capital plus additions and replacements of existing assets. It does not take into account asset disposals or depreciation, but these do not comprise a major problem for this analysis as gross fixed capital formation is by far the largest component of net capital investment and generally follows the same trend as the more complete series.

Chart 4: General Government Gross Fixed Capital Formation by Function



Source: As per chart 2 above from source-figure 4.2, page 37.

The continued increase in general government gross fixed capital formation in transport and communications (in Chart 4) is the result of medium-to-long-term commitments for road and rail transport, as well as to the National Broadband Network. Such projects frequently have a relatively long planning period and an even longer implementation period. This results in a consistently rising trend throughout the period included in the chart.

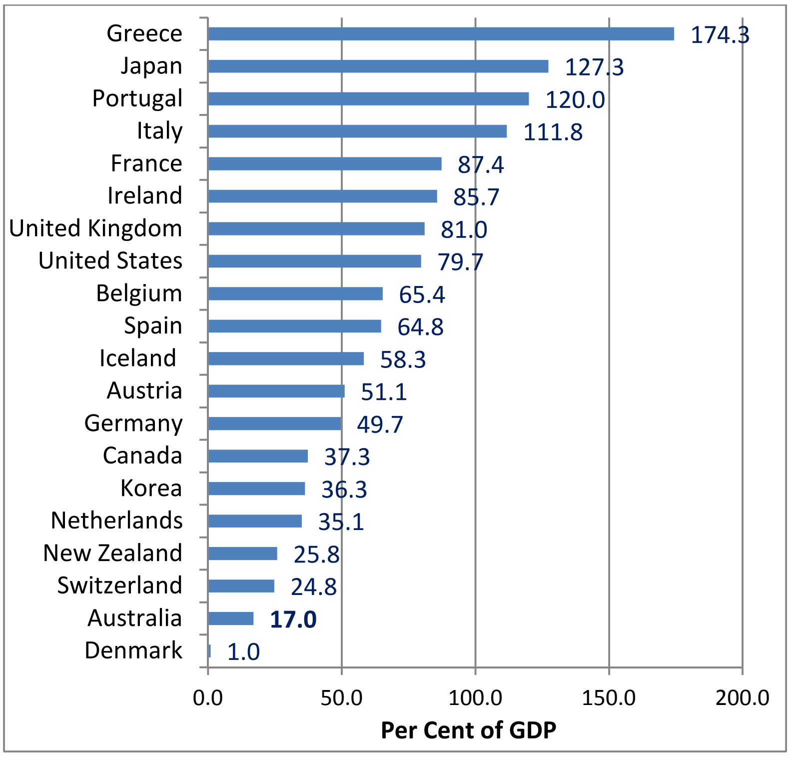
Other targets for infractructure development have no consistent trend. Fixed investment in education beginning in financial year 2008-2009 consisted of new and rennovated school buildings as part of the stimulus package following the global financial crisis, but then fell to a point that is substantialy below an extension of the 2002-2003 to 2008-2009 trend. Investment in buildings and fixed equipment for defence and health continued to rise for most of the period, but fell when the national-debt “jitters” intensified prior to the 2013 election.

Despite the relatively small per cent of total capital investment arising from all levels of government, compared to investment by the private sector, an agreed upon plan for a long-term sequence of infrasture projects would go a long way in establishing and maintaining private sector confidence. This would require government participation in project selection, risk-sharing between public and private sectors at varying stages of production of ownership, and of course appropriate pricing to satisfy suppliers as well as final users. A sequence that returned the growth path of infrastructure development for defence, education and health to the pre-crisis levels would seem to be a reasonable starting point, with adjustments made for imbalances that have resulted since the crisis. It is likely the the imbalances will be greater with continued postponement of this planning process.

How should these new infrastructure developments be financed and will it result in a new "mountain" of debt?

New borrowing by the relevant level of government is likely to be required in order to supply the first "ante-up" to formalise the confidence-building process and to share risks between the public and private sectors. Compared with other large, advanced nations Australia has sufficient scope at the present time to undertake additional borrowing. Among the 20 nations shown in Chart 5 Australia has the second lowest level of general government net debt as a per cent of gross domestic product (GDP) at 17 per cent for the 2014 calendar year, which is 10 times smaller than the largest (Greece at 174 per cent of GDP). The level of debt for Australia is expected to increase to 20 per cent of GDP (Chart 6) with current commonwealth and state govenrment budgetary planning.

Chart 5: General Government Net Debt 2014 (Preliminary)[4]

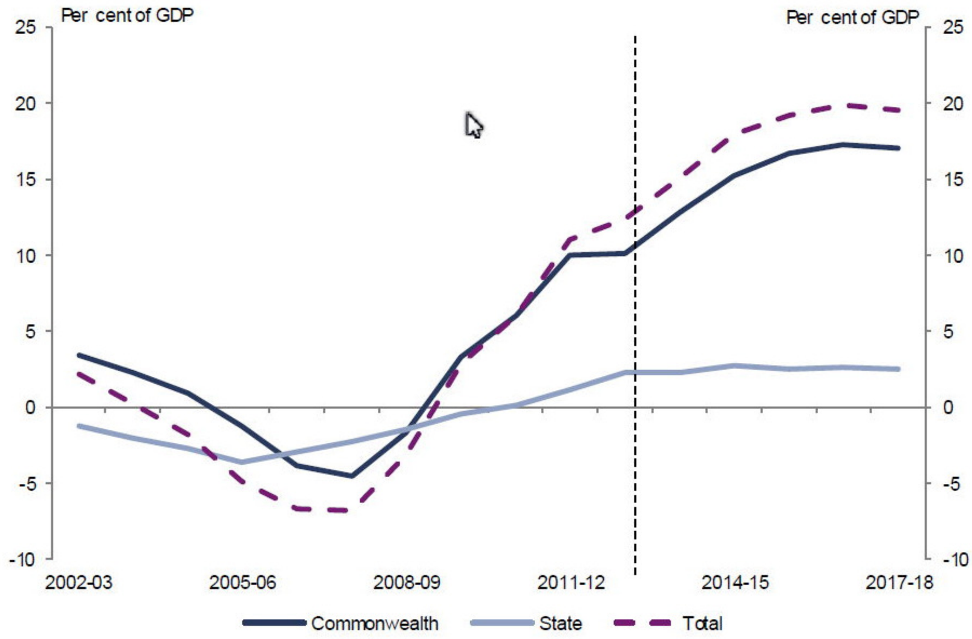


Source: IMF World Economic Outlook Database – April 2015

Substantial increases in spending beyond that which is currently planned will postpone the time at which the level of debt will be stabilised as a percentage of GDP. How serious is this likely to be? Using IMF data for the calendar year, Australia's debt in 2014 was expected to be A$271 billion in 2014. Even though the cost of borrowing is relatively low at the moment (about 3 per cent for 10-year government bonds) the interest payments on that basis would be A$8.1 billion. To most of us that is a lot of money. But in proportion to Australia's GDP of A$1,599.8 billion, the interest payments comprise less than 1 per cent of that amount. Chart 7 shows that this amount of expected to increase slightly before leveling off.

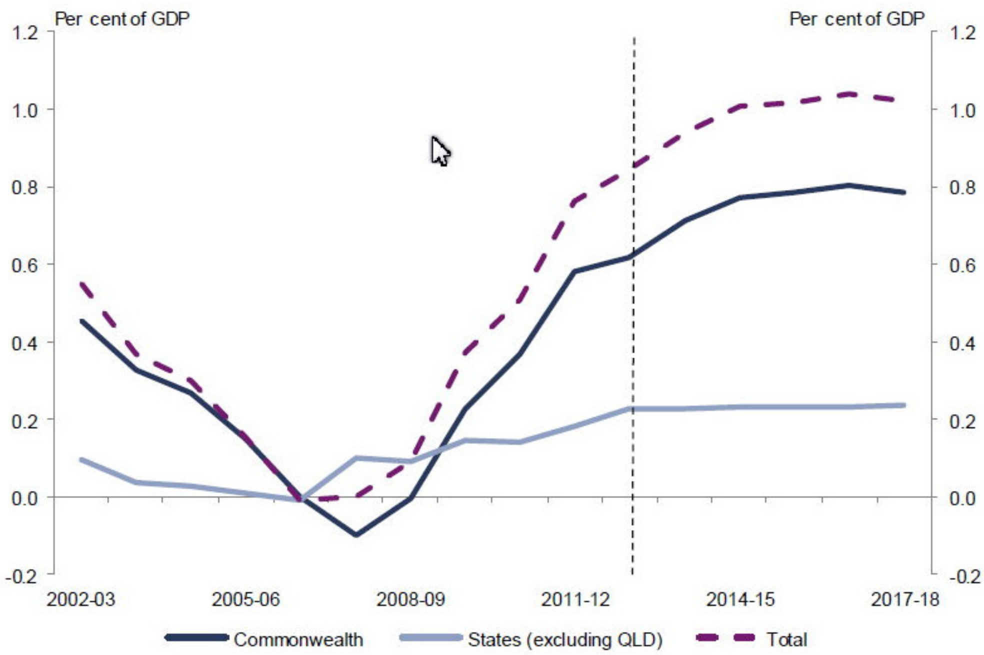
[4] The data were published by the IMF in April of this year and some entries for the 2014 calendar year were subject to revision by relevant national governments.

Chart: 6: Commonwealth and State Net Debt



Source: As per Chart 2 above from source-figure 5.2, page 46.

Chart 7: Commonwealth and State General Government Net Interest Payments
(excluding Queensland)

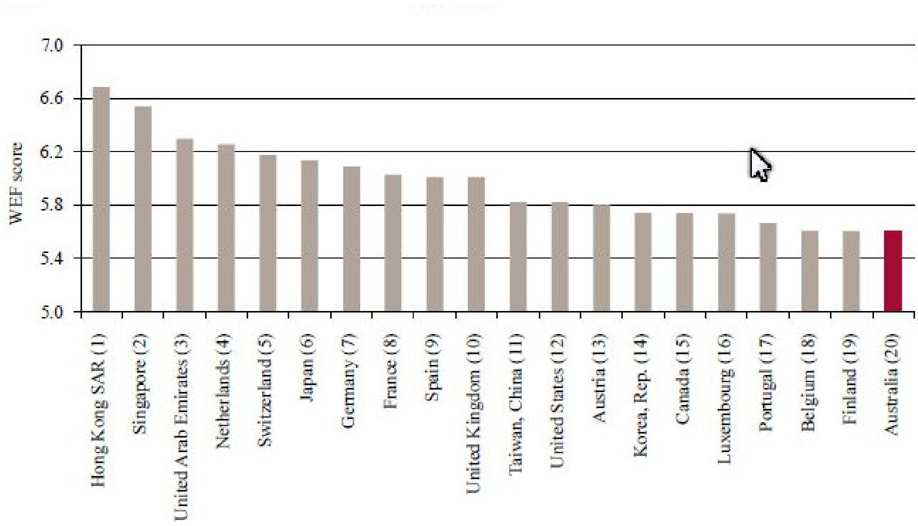


Source: As per Chart 2 above from source Figure 5.4, page 48.

What will we lose if Australia's infrastructure continues to decline?

A numerical value for such a loss would be subject to a set of assumptions that would be highly speculative in the present circumstances. We can nevertheless observe the effect it is having on position in comparison with other nations. Chart 8 contains the overall ranking of infrastructure by the World Economic Forum for 2014. Australia occupies the 20th position among the 20 nations shown, which is a drop from the 2013 ranking of 18th place.

Chart 8: World Economic Forum Overall Rankings of Infrastructure – 2014



Source: World Economic Forum, Global Competitiveness Report – 2014, Table 5, p.10. Available at: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf. Infrastructure Australia selected a "top 20" for a comparison, with Australia in the last position. See "Australia Infrastructure Audit Report Volume 1," April 2015, page 33 at: http://www.infrastructureaustralia.gov.au/policy-publications/publications/files/Australian-Infrastructure-Audit-Volume-1.pdf.

How can we be certain that more infrastructure investment now will produce greater benefit than the same amount of investment later, perhaps in the 1916-17 financial year when the growth in national debt is projected to slow substantially?

Complete certainty is illusive for almost everything, but most definitely for economic condiditons that fail to return to expected trends. Economists can give reasonable explanations as to why off-trend events occur, but rarely have a good explanation as to why there is no evidence of return-to-trend events. The most we can do is assess the probabilty that it would be better to proceed sooner rather than later, with "later" associated with waiting until fiscal consolidation takes place. That means waiting until a strategy is in place to reduce the underlying fiscal deficit. Consolidation is not intended to reduce the level of debt, but only to prevent the accumulation of more debt. Such strategies would include austerity measures that either reduce government spending or increase taxes, or both.

Readers who follow the global financial media will have recognised that both the *Wall Street Journal* and the *Financial Times* have recently reported on this issue.[5] The main news was the apparent contradition between economists at the European Central Bank (ECB)[6] compared to a recent statement from economists from the International Monetary Fund (IMF).[7] The ECB working paper focused on fiscal multipliers, which indicate how much is added to gross domestic product from an additional dollar of government expenditure. An effort is generally made to apply the analysis to a variety of investment expenditures and recurrent expenditures, with the latter generally treated as "non-productive" in the sense that they add to the expenditure stream without necessarily adding to the total productive capacity of the economy. For purpose here, the two most important conclusions by the ECB research team are as follows:

- Fiscal consolidation can be expected to have a negative impact on economic activity in the short run and this impact is likely to be greater during periods of financial stress, such as recessions or when monetary policy is constrained.
- Beyond the short run, well-designed fiscal consolidations have a positive medium-to-long term effect so that even substantial increases in the debt-to-GDP ratio will be reversed within a few years.

The rationale for the reversal "within a few years" places emphasis on confidence building for the private sector in noting that the government is managing to balance its fiscal accounts and thus save the interest payments that would otherwise be taken out of the normal expendiure stream to service the debt. This in itself seems to be sufficient to convince many people that austerity is likely to work and that frontloading fiscal consolidation (beginning the process early) is preferable to backloading it (resolving debt problems later).

But it misses one important thing. In the last paragraph of the ECB report the authors state that the process they describe is better suited to non-productive government expenditure. This includes recurrent expenditure for government goods and services as well as investment expenditures for which the financial and economic benefits may not exceed the costs, but for which there is believed to be substantial social or environmental benefit that cannot be fully quantified. These may turn out to be beneficial, but if not they will obviously add to the debt level rather than is subtracted from it.

It is clear that Glenn Stevens was advocating infrastructure expenditure that has a high probablitity of being productive (economic benefits are in excess of costs). Perhaps more

[5] Todd Buell, "European Central Bank Economists Find that Austerity Works," *Wall Street Journal*, 10 June 2015. Available at: http://blogs.wsj.com/economics/2015/06/10/ecb-economists-find-that-austerity-works/. Clair Jones, "Government Austerity Works, ECB Economists Say," *Financial Times*, 10 June 2015. Available at: http://www.ft.com/intl/cms/s/0/2b8bf500-0f8a-11e5-94d1-00144feabdc0.html#axzz3cnoqAeD0.

[6] Thomas Warmedinger, Cristina Checherita-Westphal and Pable Hernadez de Cos, "Fiscal Multipliers and Beyond," European Central Bank, Working Paper Series No. 162, June 2015. Available at: http://www.ecb.europa.eu/pub/pdf/scpops/ecbop162.en.pdf.

[7] Jonathan D Ostry, Atish R Ghosh and Raphael Espinoza, "When Should Public Debt Be Reduced," IMF Staff Discussion Note SDN 15/19, 2 June 2015. Available at: http://www.imf.org/external/pubs/ft/sdn/2015/sdn1510.pdf.

importantly, emphasis on the impact on private sector confidence is as strong for the ECB case for frontloading fiscal consolidation as for backloading after a plan for infrastructure investment is presented.

It appears that both businesses and households in Australia are displaying an enhanced desire to resolve infrastructure issues that have accumulated for the past several years, in the hope that the trend line in Chart 1 begins to resemble that of the Howard-Costello period, in comparison with the green line since the last election. Households may not express their opinion in quite that way, but it is nevertheless clear that they recognise the extent to which all forms of infrastructure are either deteriorating or have been slowed as a result of funding and debt considerations. Business sector frustration is apparent from the National Infrastructure Summit convened by the *Financial Review* in Sydney on 11-12 June and reported in a special supplement on 12 June 2015. These efforts to seek solutions, and those of Infrastructure Australia, deserve our support.

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