Fiscal sustainability and pre-funding strategies in OECD countries

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This article summarises a paper prepared by the authors for the Banca d'Italia conference on fiscal policy held in Perugia, Italy from 31 March to 2 April 2005. The paper discusses pre-funding strategies being adopted by OECD countries to address demographic pressures and compares this with Australia's experience. The full paper will soon be published in a volume with other papers presented at the conference, and will be available on the Banca d'Italia web site, http://www.bancaditalia.it/

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Introduction

Australia's demographic challenges and associated fiscal pressures are now well known.[2] The 2005-06 Budget set out the Government's ongoing strategy for addressing these fiscal pressures through the continuation of budget surpluses while growth prospects remain sound, the accumulation of net worth through the establishment of the Future Fund and policies to raise productivity and participation in the Australian economy.

Other OECD countries face similar fiscal pressures. Indeed, many OECD countries face an increasingly difficult fiscal challenge in comparison to that faced by Australia. Governments can adopt a number of strategies in response, including modifying expenditure plans, taking steps to raise economic growth rates, raising taxes in the future or undertaking activities to pre-fund the future liabilities. While the Australian Government's approach is centred around pro-growth policies and balance sheet consolidation, the appropriate policy response for other countries will depend on their particular circumstances. This paper focuses on the different approaches to the pre-funding option.

Definition of pre-funding

A country is said to be pre-funding when the government's net financial asset position is improving.[3] The flow equivalent of this stock concept is the achievement of primary surpluses (where the primary surplus equals receipts less non-interest payments).[4] When net public debt interest is positive, attainment of a primary surplus will be easier than achieving a headline surplus, as the latter requires revenues also to cover interest expenses. Primary balances have attracted relatively little attention in Australian policy debates, partly due to Australia's low debt level. However, for countries with higher debt levels, they are generally more instructive in explaining the evolution of

2 See in particular Australian Government (2002).

3 Comley and McKissack (2005) demonstrate that this definition of pre-funding is consistent with ensuring fiscal sustainability. The technical definition of fiscal sustainability is that all obligations, current and future, can be met without changing current policy settings. Comley and McKissack (2005) define the fiscal position as meeting a weak sustainability criterion when the government's net financial asset position is stable over a period of time. Over a longer time horizon the criterion becomes stronger as a broader set of cash flows must be considered. As discussed in Comley and McKissack (2005) the criterion does not represent full sustainability, partly due to the limitations of focusing on net financial assets which are a subset of broader measures such as net worth and partly due to the lack of an infinite time horizon.

4 This relationship holds if the economy grows at a rate similar to the rate of interest. This assumption holds for most OECD countries in recent times (see Comley and McKissack, 2005).

net financial assets than other cash concepts such as the headline balance or the underlying cash balance.

For the purposes of this analysis, pre-funding has been defined relative to the initial financial asset position. A country with high net debt that is taking steps to reduce that debt is defined as a pre-funder, but a country with a low but stable net debt level is not classified as a pre-funder. From a policy perspective, the question examined in this paper is how governments are responding to the fiscal challenge, not how favourable their initial fiscal position may be. If governments improve their net financial asset position, then they reduce future financing costs and create additional flexibility compared with the initial starting point (whatever that may be).

It follows from this that having a strong pre-funding strategy does not necessarily imply a stronger fiscal position than other countries that are pre-funding less. It may simply reflect a bigger fiscal challenge resulting from a more unfavourable starting point (either due to the initial financial asset position or higher expected increases in expenditures).

Australia’s fiscal strategy

The Australian Government (2005, pp. 1-5) has set out a multi-pronged strategy for addressing demographic challenges involving elements of pre-funding, lowering expenditure and growing the economy faster to maintain a stable fiscal position into the future.

This strategy is complemented by an approach to budget reporting which includes both cash and accrual reporting. Moreover, the fiscal strategy now explicitly identifies government net worth as a target of policy, in light of the fact that this measure gives a broader indication of improvements in the government balance sheet.

The Government’s fiscal strategy, introduced in 1996, is to maintain budget balance, on average, over the economic cycle (Australian Government, 2005, pp. 1-5). To date this has involved significant primary surpluses and reductions in net debt as a percentage of GDP (Table 1), consistent with the definition of pre-funding described above. Net debt is expected to fall by $90 billion from 1995-96 to 2005-06, with surpluses contributing $51.9 billion and privatisation receipts contributing the remainder. Australian Government net worth is expected to increase by around 9 per cent of GDP over this period.

Looking forward the Australian Government has a pre-funding strategy, targeted at pre-funding public sector employee superannuation liabilities. To this end the Government has announced the establishment of a Future Fund. The Government has announced that Fund earnings will be reinvested and excluded from the calculation of the underlying cash balance (Australian Government, 2005, pp. 1-6). Accordingly Fund earnings will contribute to improving net worth.

Table 1: Australian Government general government sector underlying cash balance, primary balance and net debt (per cent of GDP)

	Underlying cash balance	Primary balance	Net debt
1995-96	-2.0	-0.5	19.1
1996-97	-1.0	0.6	18.2
1997-98	0.2	1.5	14.8
1998-99	0.7	1.9	11.9
1999-00	2.1	3.1	8.6
2000-01	0.9	1.6	6.4
2001-02	-0.1	0.5	5.3
2002-03	1.0	1.5	3.9
2003-04	1.0	1.4	2.9
2004-05(a)	1.1	1.3	1.9
2005-06(a)	1.0	1.3	0.7

(a) Estimate.

Empirical results for other countries

To examine the pre-funding experience of other countries, countries are identified that have declining liabilities and/or are targeting positive primary fiscal balances. The experience of different countries is then examined in some detail to ensure that there are not other factors that have been obscured by the data. Forward-looking intentions are also taken into account as embodied in announced policy.

To facilitate comparisons across countries, the analysis is based on cash concepts. This is a limitation of the analysis as broader balance sheet measures would be needed to identify more fully the impact of policy changes on fiscal sustainability. However, the accrual budgeting methods adopted in Australia to capture these balance sheet effects better are not widely used in the OECD.

In light of the above, countries are not classified purely on the basis of changes in the cash position of the budget. An on-balance decision is made as to the pre-funding intention and practice of a country, giving particular weight to the forward-looking intentions of countries. In this respect two separate groups of countries are identified. The first are 'strong pre-funders' and the second 'mild pre-funders'. The 'strong pre-funders' are identified by clear evidence of past pre-funding and a forward-looking commitment to further pre-funding. The second group are characterised by less pre-funding in the past, or a forward-looking pre-funding policy that implies less pre-funding, or weaker compliance with their own policy.

Australia is characterised as a mild pre-funder notwithstanding the substantial reductions in net debt that have occurred in the last decade and the fact that Australia has demonstrated strong compliance with its own medium-term fiscal framework. The reason that Australia is not defined as a strong pre-funder is that its forward-looking strategy is based on a 'balance over the cycle' objective. Similarly Ireland is defined as a mild pre-funder notwithstanding the dramatic reduction in gross financial liabilities (a reduction of over 70 per cent of GDP) over the last 15 years. The mild pre-funder classification reflects Ireland's implied forward-looking strategy, which does not seem to call for any significant further reduction in debt levels.

In many cases, the forward strategy adopted by countries reflects the nature of the underlying fiscal challenge. Australia, which has made significant progress in reducing its net debt, does not face as difficult a challenge as many other countries.

A further point to note is that the pre-funding definition tends to pick up both countries that are seeking to fund expenditures that are yet to occur (in particular, those associated with demographic pressures) and countries that are funding liabilities that have already been accrued. However, consistent with abstracting from the initial starting point (for the reasons provided above) this article does not draw this distinction.

It should also be noted that the following analysis compares the consolidated general government position of countries. It therefore reflects the financial position of both the central government and sub-national governments (and in the case of Australia therefore includes the States and Territories).

Tables 2 to 4 set out the countries identified as pre-funders and provide some key fiscal indicators for these countries as they stood at 1995 and 2000. The first group of countries represent the strong pre-funding countries (Table 2). The second group represent the mild pre-funding countries (Table 3). Table 4 summarises the characteristics of these countries compared with the other OECD countries that do not have a pre-funding strategy.

Table 2: Fiscal positions of strong pre-funding countries (per cent of GDP)

Country	Gross financial liabilities		Net financial liabilities		Tax/GDP
	2000	1995	2000	1995	2000
Belgium	115.0	138.8	102.5	125.6	49.5
Canada	81.8	100.8	44.8	69.3	44.1
Denmark	54.4	78.4	8.7	25.9	57.4
Finland	53.2	65.7	-31.5	-3.8	56.1
Luxembourg	5.5	6.7	n/a	n/a	44.7
New Zealand	44.7	56.9	20.7	34.7	41.3
Norway	30.0	34.4	-60.6	-32.6	58.2
Sweden	64.2	82.2	1.4	25.3	62.4
Average	56.2	70.5	12.3	34.9	51.7

Table 3: Fiscal positions of mild pre-funding countries (per cent of GDP)

Country	Gross financial liabilities		Net financial liabilities		Tax/GDP
	2000	1995	2000	1995	2000
Australia	25.2	44.6	9.9	28.2	36.5
Iceland	41.9	60.3	24.0	40.4	45.6
Ireland	38.3	81.9	n/a	n/a	36.4
Italy	124.5	133.5	98.9	109.2	46.2
Korea	16.3	5.5	-27.0	-17.4	29.3
Netherlands	66.7	90.8	35.1	54.1	47.5
Spain	67.3	70.3	43.3	48.9	39.1
Average	54.3	69.6	30.7	43.9	40.1

Table 4: Summary (per cent of GDP)

Country	Gross financial liabilities		Net financial liabilities		Tax/GDP
	2000	1995	2000	1995	2000
Strong pre-funder	56.2	70.5	12.3	34.9	51.7
Mild pre-funder	54.3	69.6	30.7	43.9	40.1
Non pre-funder	64.9	73.2	39.2	39.0	42.7
OECD (unweighted)	59.5	71.2	27.8	41.3	44.8

Source: General government gross financial liabilities, general government net financial liabilities and total tax and non-tax receipts are from the *OECD Economic Outlook 76* Database.

The data indicate that in 2000 the average gross general government financial liabilities of the strong pre-funding countries were around 9 per cent of GDP lower than the average of the non pre-funding countries, with net liabilities around 15 per cent lower for the strong pre-funding countries. To some extent, this is not surprising given that these countries have been chosen on the basis that they have implemented a pre-funding strategy. In 1995, there was little difference between the strong pre-funding countries and the non pre-funding countries in the gross or net financial asset positions.

Accordingly, as a group, the initial asset position does not appear to provide a strong explanation for the decision to pre-fund. That said, high initial debt positions were probably influential in some individual countries. For example, the initial debt positions of Belgium, Canada and Italy do appear to have been a significant factor in their decisions to pre-fund. In the case of Belgium and Italy, broader European considerations (in particular adoption of the Euro) also played a significant part.

A more important variable appears to be the initial tax position of the pre-funding countries. As indicated in Table 4, there appears to be a significant difference between the average tax-to-GDP ratio of the strong pre-funding countries and other OECD countries. The strong pre-funding countries in 2000 had an average tax-to-GDP ratio of 51.7 per cent. This compares with an average of 40.1 per cent for the mild pre-funding countries and 42.7 per cent for those OECD countries that are not identified as pre-funders.

There are two major efficiency motivations for pre-funding: tax smoothing over time and avoiding interest rate risk premia associated with high and rising levels of public debt. The magnitude of the benefits of tax smoothing depends in part on the initial level of taxation. The observation that countries with high initial tax rates tend to undertake more pre-funding is therefore consistent with these efficiency considerations. That said, high-tax countries may also be motivated by other factors, in particular political constraints. Further, it is possible that high-tax countries may have institutional arrangements that make it difficult to revise the terms of the social contract, as discussed below. In this respect it may be better to characterise these strong pre-funding countries as 'high-expenditure' rather than high-tax.

It should also be noted that the causality is unlikely to run the other way, that is higher taxes are not caused by pre-funding. Most of the strong pre-funding countries are pre-funding in the order of 1 to 2 per cent of GDP per year (Norway is the exception given oil revenue). This compares with a tax-to-GDP ratio of more than 10 per cent higher than the OECD average. In addition, the strong pre-funding countries face slightly higher increases in expenditure from their current high base.

In light of the above, there is some evidence that the initial tax-to-GDP ratio influences the likelihood of a country pre-funding. Notwithstanding this general conclusion, there are some high-taxing countries that are not pursuing pre-funding strategies, such as Austria and Germany (with tax-to-GDP ratios of 49.8 and 51.1 per cent respectively). There are also countries that are strong pre-funders, such as New Zealand and Canada, that do not have especially high tax-to-GDP ratios. Moreover, the mild pre-funding countries have a lower tax-to-GDP ratio than the non pre-funding countries. This suggests that there are likely to be other factors at work.

Table 5 sets out estimates of the relative spending pressures of OECD countries. The average estimated increase in old age pension spending for the strong pre-funding countries is 4.5 per cent of GDP and the average of the mild pre-funding countries is 4.2 per cent of GDP. This compares with an OECD average of 3.8 per cent. Given the differences in methodologies for calculating these figures and the inherent uncertainty associated with long-term projections of this kind, we would not want to over-interpret this information. That said, the data are consistent with the proposition that the magnitude of expected increases in pension expenditure is related to pre-funding.

Table 5: Spending pressures (percentage points of GDP)

Country	Change in old age pension spending 2000-2050	Change in health spending 2000-2050
Belgium	3.7	3.0
Canada	5.8	4.2
Denmark	3.6	2.7
Finland	4.8	3.8
Luxembourg	2.0	n/a
New Zealand	5.7	4.0
Norway	8.2	3.5
Sweden	2.2	3.2
Average of strong pre-funders	4.5	3.5
Australia	1.6	6.2
Iceland	0.5	3.5
Ireland	4.4	3.5
Italy	1.7	2.1
Korea	8.0	0.8
Netherlands	5.3	4.8
Spain	8.0	n/a
Average of mild pre-funders	4.2	3.5
OECD average	3.8	3.3

Source: Comley and McKissack (2005).

It is clear, however, that there are many countries with strong pension funding pressures that are choosing not to pre-fund. Germany, for example, expects to see old age pension spending increase by 5 per cent of GDP but as yet has not adopted a pre-funding strategy. Instead, it is seeking to reconsider some of its expenditure programmes.

These differences between countries may be better explained by the qualitative issue of differences in funding commitments. A way of thinking about these qualitative issues is to consider the nature of the contract between the government and the general public to fund a certain commitment. These commitments may be considered as forming a spectrum, with the strongest being contracts at law. For example, many public sector employee pension schemes are contractual in nature, and governments have an obligation to fund them. However, many public services are covered by less well defined 'social contracts' by the government to provide services into the future. For example, broader commitments to support a level of retirement income for the community at large may fall more within the terms of a social contract which is subject to renegotiation, with the strength of that social contract varying between countries.

Many of the countries in the strong pre-funding category could be said to have strong social contracts which bind their governments to provide a certain standard of income support into the future — a feature in particular of the Nordic countries. Other countries may be more inclined to pursue strategies to renegotiate the social contract.

In contrast to the information on expected changes in pension expenditure, there appears little evidence that expected changes in health expenditure explain differences in the tendency to pre-fund. The average estimated increase in health expenditure is 3.5 per cent of GDP for both the strong and mild pre-funding countries, similar to the OECD average. Furthermore, the health estimates should be treated with an even greater degree of caution than the pension estimates as the methodologies differ more and there are more countries where there are no data. That said, there is no particular reason to believe that the countries identified as pre-funders would systematically have estimated health costs that are higher than the OECD average.

Consideration of the nature of the social contract in respect of health care may suggest a different policy response than applies to pensions. In many countries, expected increases in health expenditures are as much a function of improvements in technology as they are of demographic factors. While demographic factors suggest an increasing cost in delivering an existing service, public provision of new, higher cost medical technologies would appear to represent new services which require future renegotiation of the social contract.

Conclusion

Comley and McKissack (2005) develop a framework for analysing pre-funding among OECD countries. This framework is consistent with concepts of fiscal sustainability which require that a government can meet its inter-temporal budget constraint on the basis of current policies.

A number of OECD countries are pursuing pre-funding strategies to address demographic pressures. Those with the strongest pre-funding strategies tend to be high-tax/high-expenditure countries with relatively less fiscal flexibility to adjust taxes and expenditure into the future. However, some of the stronger pre-funders may be simply addressing poor periods of fiscal management in the past to prepare their countries for future pressures.

Australia is in a middle group of countries. It has pre-funding as part of its fiscal strategy, but has not needed to pursue strategies as aggressive as those pursued in other countries. While the analysis has abstracted from country starting points, it is clear that Australia's current fiscal position puts it in a favourable position to meet future challenges compared with many other OECD countries.

Another notable feature of the analysis is the range of larger OECD countries that are not pursuing pre-funding strategies, including the US, Japan, Germany, France and the UK. This may suggest that alternative fiscal strategies are being pursued (such as implicit renegotiation of the social contract to provide government services) but could also suggest an emerging need for sharper fiscal adjustments in these countries once demographic pressures begin to bite.

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