
4 General budget appropriations

Key points

- General budget appropriations are a financing vehicle, authorised by a legislative entity, that enable a government to spend public finances for specific purposes
 - they are framed in accordance with the broader political and policy processes that determine budget parameters
 - they remain a major financing vehicle for public infrastructure investment
 - the funds appropriated can be sourced from general taxation revenue, general government debt, hypothecated taxes or intergovernmental transfers.
- The scope and application of budget appropriations in financing public infrastructure has changed over time in response to budget and financial management reforms, as well as changes in fiscal policies. Pressures for fiscal discipline have tended to reduce the use of budget appropriations in recent years.
- An important advantage of budget appropriations is that they are subject to political scrutiny and monitoring, which makes government infrastructure financing activities relatively transparent and accountable.
- A disadvantage is the potential for fund diversion creating cash flow constraints on efficient development of the infrastructure asset. There may also be less incentive for exploring user charges, or other avenues to improve efficiency. This is likely to be a greater issue where financing is from intergovernmental transfers, although such transfers may help address fiscal imbalances.

In OECD countries, the relevant legislative entity authorises the expenditure of public finances by the general government sector.¹ Although the extent to which these general budget appropriations are applied varies across the studied countries, they have a longstanding role in financing public infrastructure projects (section 4.1).

The applications of budget appropriations have undergone significant changes in many countries over the past two decades (section 4.2). These changes include the revenue sources used to finance appropriations, the impact of public sector reforms

1 The general government sector comprises the core agencies of government, including departments, agencies, offices and other bodies engaged in providing goods and services.

(such as accrual accounting and output-based budgeting), trends in fiscal policy and the use of special (standing) appropriations in financing government spending.

This chapter concludes with an assessment of relative strengths and weaknesses of budget appropriations as a public infrastructure financing vehicle (section 4.3).

4.1 Use of budget appropriations as a financing vehicle

The legislative oversight of public expenditure represents a fundamental principle of modern government. Specifically, the legislature's role is to debate and approve laws proposed by an executive (the government), that compel or permit the executive to spend revenue in its possession, but in accordance with purposes, amounts and timeframes approved by the legislature (Kennedy 2002).

Appropriations principally provide for the ongoing commitments and activities of government (for example, agency staff wages and salaries) and for financing the acquisition, construction and maintenance of capital assets by government.² The broad features of budget appropriations are described in this section and are illustrated by cases where they have been applied to finance public infrastructure.

Characteristics of budget appropriations

Appropriations are typically approved for a fixed amount of money, to be spent by the government up to the authorised amount. Within all of the studied countries, however, there is also limited provision for supplementation of expenditure through additional appropriations. Further, there are provisions in some countries that enable agencies to transfer appropriation monies between government programs or classes of budgetary output.

The duration of authorised budget appropriations can also vary. Annual appropriation legislation provides finance only for the fiscal year to which it applies. Again, some countries allow governments to carry forward appropriations. Other appropriations, commonly known as special appropriations, are generally authorised through other legislation and continue for longer than a fiscal year. Expenditures under special appropriations typically include transfer payments to individuals and some ongoing capital expenditures.

² Unlike most countries, the US federal budget does not distinguish between current and capital expenditures in its appropriation structure (Schick 1995).

The role of the legislature in budget appropriations varies among the studied OECD countries, depending on legal, constitutional and political arrangements and traditions.

In Westminster parliamentary democracies — such as the United Kingdom, Australia, Canada and New Zealand — budget appropriations are usually approved after debate. In the US presidential system, the legislative body plays a more ‘activist’ role in attempting to influence appropriation parameters. Specifically, the Congress typically proposes amendments to the budget proposals of the President, or formulates its own appropriation legislation for presidential approval (Lienert 2005; Premchand 1993; SIGMA-OECD 1998; Sterck and Bouckaert 2006; Wehner 2005).

In non-Westminster parliamentary systems — such as that in Sweden, and the semi-presidential systems of France and Germany — the legislature has some scope to vote on amendments to reducing spending and taxes. However, as in Western parliamentary democracies, these powers are strictly constrained (Lienert 2005).

Budget appropriations for public infrastructure

Inter-country comparisons of the level of public infrastructure investment financed by general budget appropriations are unavailable. This is due, in part, to the significant variation in the level of reporting in appropriation acts and government budget papers. There are also differences in the way public capital is defined across countries, inconsistent accounting frameworks for valuing assets, and program-specific differences in the application of appropriated expenditures.

Given these limitations, the information provided below is only illustrative of public capital appropriations in the studied countries. It cannot be used to infer the overall level of public infrastructure financed by appropriations.

Appropriation bills authorise expenditure or have the effect of increasing, altering the destination of, or extending the purpose of an existing appropriation.³ The annual appropriation bills are passed regularly each financial year to appropriate money from the Consolidated Revenue Fund to provide funds for government and parliamentary expenditure.

³ Section 83 of Australia’s Constitution states that ‘no money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law’. Although Parliament has the ultimate control by way of veto, the Government has what is known as the ‘financial initiative’. Parliament is constitutionally separate and independent from the Government and has separate funding by means of its own appropriations.

As in other federations, the Australian Government provides supplementary funding to the States and Territories to implement projects of national strategic importance. The Australian Government's Roads to Recovery program is one example (box 4.1).

In those States and Territories for which data are available, budget appropriations are significant sources of capital outlays. The Western Australian Government reported in its budget papers that about 25 per cent of funds for public sector capital works would be sourced from appropriations (capital contributions and funding) in 2007-08. By comparison, about 30 per cent of public capital works were funded from appropriations in 2000-01 (Government of Western Australia 2002, 2007).

In Tasmania, it is estimated that about 46 per cent of the State's infrastructure investment in 2007-08 would be sourced from consolidated fund appropriations (Government of Tasmania 2007).⁴ Transport and communications infrastructure

Box 4.1 Appropriation structure of the Australian Government's Roads to Recovery program

In November 2000, the Australian Government announced the Roads to Recovery (R2R) program, which provided \$1.2 billion over the period January 2001 to June 2005. The grants were paid directly to local government authorities for road construction and maintenance purposes, and were additional to financial assistance grants.

The initial R2R program was established by the *Roads to Recovery Act 2000*, and provided a special appropriation capped at \$1.2 billion. The appropriation was also constrained by time, with any amount not spent by June 2005 becoming unavailable to be spent.

In January 2004, the Australian Government announced that a further \$1.2 billion would be provided over the four-year period July 2005 to June 2009. From that date, it became a component of AusLink, the National Land Transport Plan.

The initial R2R program was funded through a special appropriation. The AusLink R2R initiative is funded through annual appropriations, including \$300 million per annum of formula-based payments to councils.

Sources: ANAO (2005); Dollery, Pape and Byrnes (2006); DOTARS (2007).

⁴ In addition, the Tasmanian Government finances some public infrastructure projects through special capital funds. In 2007-08, it was estimated that these funds would account for about 18 per cent of total State infrastructure investment. Further, it was estimated that Australian Government transfer payments would represent about 27 per cent of Tasmanian infrastructure investment.

investment was expected to account for about \$172 million (60 per cent) of Tasmanian general government sector infrastructure spending in 2007-08 (Government of Tasmania 2007). This includes outlays for major highways and additional spending on infrastructure that enhances road safety. Other major categories of appropriated capital expenditure include new and upgraded facilities in the health, education, tourism and public housing sectors.

In New Zealand, capital expenditure in 2007-08 was estimated to account for about 9.8 per cent of total appropriations. In 2002-03, capital expenditure represented around 7.1 per cent of total appropriated expenditures (Government of New Zealand 2007).

In Canada, appropriations are a relatively minor source of funds to finance public infrastructure investment. The Canadian federal government's capital expenditure (including on infrastructure and other capital assets) was around 2.0 per cent of outlays in 2007 (Statistics Canada 2008). Appropriations for capital expenditure at the state government level are also relatively low. Ontario, for example, had an estimated capital expenditure of 3.3 per cent of total (operating and capital) appropriations in 2007-08. In 2003-04, the proportion of capital expenditure to total expenditure was marginally higher at about 3.7 per cent (Government of Ontario 2003, 2007).

In British Columbia, capital expenditure from consolidated revenue was estimated to represent about 1.7 per cent of total (operating and capital) expenditure in 2007-08, up from around 1.3 per cent in 2003-04 (Government of British Columbia 2004, 2007).

In Ontario, the share of municipal capital expenditures financed from annual operating revenues (such as property taxes) increased from 18 per cent of all capital expenditure to more than 23 per cent from 1990 to 2001 (Kitchen 2003). About 45 per cent of all municipal capital spending were sourced from municipal reserve funds by 2001, up from 28 per cent in 1990.⁵ Over the same period, long-term borrowing by many Ontario municipalities declined as a source of funds to finance capital projects.

In the United States, capital projects have been traditionally financed from sources other than appropriations of general government funds. For example, capital project financing in the 2005 fiscal year came largely from dedicated fees and surpluses

⁵ It is reported that '... [s]ince the early nineties, the provincial government has offloaded additional capital and operating expenditure responsibilities to municipal governments, while at the same time reducing the municipal sector's reliance on grant funding' (Kitchen 2003, p. 31). For example, provincial grants for water and sewerage systems and roads declined over the study period.

(37 per cent) and bonds (31 per cent). Federal transfer payments (27 per cent) and state general funds (4 per cent) also contributed to capital spending (NASBO 2006).

Transportation was the largest category of state capital expenditure — at US\$46.5 billion or 64 per cent in 2005. Other major areas include higher education institutions, correctional facilities, environmental amenity projects and public housing (NASBO 2006).

The Californian Government estimates that about 1.5 per cent of proposed capital expenditure in 2007-08 is to be financed out of the general fund (State of California 2007). Further, an analysis of infrastructure financing trends in California by Semler (2005) found that the use of general funds as a source of infrastructure finance declined from approximately 14 per cent in 1960-61 to under 1 per cent in 2002-03.⁶

Care is required in drawing any conclusions about the relative importance of budget appropriations in financing infrastructure over recent years from the above examples. It is important to note that the significant differences across the studied countries can be attributed to a host of factors. These include political priorities and economic conditions, as well as the availability and adoption of alternative financing vehicles, such as bonds and public–private partnerships, to finance public infrastructure investments.

4.2 Policy issues

The policy environment underlying the application of appropriations has undergone significant change in recent decades, namely:

- the revenue sources used to fund appropriations
- public sector budgetary and financial management reforms
- fiscal policy settings
- the use of special appropriations in financing government expenditures.

⁶ The representation of special fund revenues in total infrastructure financing in California also declined — from approximately 44 per cent in 1960-61 to about 8 per cent in 2002-03. Funds from the federal government also declined in relative terms, from around 27 per cent to about 14 per cent over the same period. On the other hand, the utilisation of bonds increased significantly from about 16 per cent of total infrastructure finances in 1960-61 to 78 per cent in 2002-03. Similar findings are published by de Alth and Rueben (2005) and Hanak and Rueben (2006).

These changes, as discussed below, have affected the use of budget appropriations in financing infrastructure investments.

Sources of funds for budget appropriations

Constitutional or legislative provisions in the studied countries generally require that government revenue must initially be collected and deposited into a ‘general fund’ or ‘consolidated revenue’.

Funds that are appropriated to finance investment in public infrastructure, as well as other public goods and services, can be sourced from:

- *general taxation* — the compulsory transfer of money to a government, with no direct link between the base upon which the tax revenue is sourced and the expenditure of the revenue raised (OECD 2006a)
- *general purpose public borrowing* — funds raised by issuing debt securities on domestic or international markets
- *hypothecated taxes* — taxation revenue (usually from specific taxes or levies) directly assigned, or ‘earmarked’, to finance designated expenditures
- *intergovernmental transfers from tax revenues* — the transfer of finances between different levels of government.

Careful consideration is required in deciding how to raise funds for budget appropriations because of their economic incentive and fiscal management impacts.

General taxation

Total taxation revenue as a proportion of gross domestic product (GDP) has increased in most of the studied countries (table 4.1).

General taxation is perceived to be a relatively straightforward method of raising funds to finance infrastructure development. Further, the imposition of general taxation is considered to be a relatively efficient way for spreading the costs of provision at a given point in time where the social benefits of public infrastructure are diffused throughout society and specific users cannot be identified (ACG 2003).

Table 4.1 Total taxation revenue as a proportion of GDP (per cent)^a

Country	1975	1985	1995	2005
Australia	25.8	28.3	28.8	30.9
Canada	32.0	32.5	35.6	33.4
France ^a	35.4	42.8	42.9	44.1
Germany	34.3	36.1	37.2	34.8
New Zealand	28.5	31.1	36.6	37.8
Sweden	41.6	47.8	48.1	50.7
United Kingdom	35.3	37.6	34.7	36.5
United States	25.6	25.6	27.9	27.3

^a Includes tax collected by national, state and local governments. ^a Total taxation revenue for France has been reduced by the amount of capital transfers that represents uncollected taxes.

Source: OECD (2006a).

Box 4.2 Estimates of the efficiency costs of general taxation

The use of broad-based taxation tends to discourage mutually beneficial market exchanges by driving a wedge between the prices that suppliers want to receive for their output, and what consumers are willing to pay. By altering economic incentives at the margin, taxes can lead to an excess burden (or 'deadweight loss') that is borne by the wider community.

A number of surveys have presented estimates on the efficiency costs attributable to general taxation. These estimates typically show that the deadweight cost associated with raising taxation ranges from a minimum of ten cents to well in excess of one dollar for each additional dollar of revenue raised.

Robson (2004) found that the marginal (social) cost of funds from personal income taxes in OECD countries ranged from 1.2 to 1.3 — that is, to raise an extra dollar of taxation costs the wider economy between \$1.20 and \$1.30.

A review of the US tax system found that '[a] conservative estimate of the deadweight loss imposed by taxation in the United States was 40 cents for every additional dollar in taxes collected' (Vedder and Gallaway 1999). In a separate study, Feldstein (1999) found that the marginal excess burden of income taxes was about 78 per cent.

Australian research revealed that the marginal excess burden of capital taxation was about 48 per cent in the 1990s (Diewert and Lawrence 1998). In a study of NZ taxes, Diewert and Lawrence (1994) found that the marginal excess burden of labour and consumption taxes in the early 1990s ranged from 14 to 18 cents per additional dollar of revenue raised respectively.

Although the presented estimates vary considerably, they nonetheless illustrate how general taxes can have a detrimental effect on a range of economic outcomes.

General taxation has the potential to distort economic decisions (including private investment activities) and create perverse incentives, imposing ‘deadweight’ efficiency losses on the broader economy (box 4.2). Nevertheless, in comparing the cost of financing vehicles only the opportunity cost of the choice of source of finance should be considered as it is the *funding* decision, not the financing decision, that determines the overall cost to the taxpayers. Pay-as-you-go funding through budget appropriations from current revenue simply brings this burden forward onto current taxpayers. Budget appropriations funded by general public debt defer this funding burden to taxpayers in future years, but at a cost of interest payments (on public debt). Other considerations associated with the funding vehicle aside, as the best estimate of the discount rate to apply is reflected in these interest or opportunity costs, the present value of the pay-as-you-go and the public debt options should be identical.

General purpose borrowing by national governments

The relative importance of general purpose borrowing by national governments over time for all purposes can be gauged from changes in the debt-to-GDP ratio for the studied countries (table 4.2).

The debt-to-GDP ratio has declined in Australia, which had the lowest total central government debt ratio of the studied countries, at 6.5 per cent in 2005. Canada and New Zealand have also reduced their relative reliance on public borrowing activities. On the other hand, France and Germany have increased their debt-to-GDP ratios.

Table 4.2 Total national government debt as a proportion of GDP (per cent)^a

<i>Country</i>	<i>1980</i>	<i>1985</i>	<i>1990</i>	<i>1995</i>	<i>2000</i>	<i>2005</i>
Australia	8.3	11.6	6.3	19.1	11.7	6.5
Canada	na	41.0	46.6	56.8	40.9	30.4
France	na	na	na	41.5	47.4	53.8
Germany	13.1	18.5	19.8	21.1	34.1	40.3
New Zealand	na	na	na	49.7	32.6	22.7
Sweden	38.5	60.8	40.0	76.9	58.3	48.0
United Kingdom	na	na	na	na	43.4	45.6
United States	25.7	35.4	41.5	49.2	34.4	36.5

^a Excluding state or provincial and local government debt and social security funds. **na** Not available.

Source: OECD (2008).

These changes in the relative importance of general-purpose borrowing for central governments, however, do not imply commensurate changes in the level of public infrastructure investment financed through budget appropriations. In Australia at least, privatisation of public companies generated revenues allowing considerable debt retirement. More importantly, data presented in chapter 3 suggest that there has been a shift in infrastructure investment responsibilities to lower levels of government. Consequently, debt ratios for lower levels of government may be more indicative of debt financing trends, although this needs to be married with their investment data to provide reliable evidence.

General purpose borrowing by sub-national governments

At the sub-national level government borrowing is undertaken on the government's behalf by their central borrowing authority (CBA). The rationale for establishing CBAs was that they would be able to achieve a more efficient and coordinated approach to raising loans as well as creating deeper, and more transferable securities, thereby minimising borrowing costs (box 4.3).

Central borrowing authorities are able to source finance at very fine margin over the relevant Commonwealth Government bonds. Bonds issued by CBAs automatically assume the credit rating of the issuing state government. The interest rate difference between a Commonwealth Government bond and a comparable CBA bond can be quite small, depending on the credit quality of the government.

As at the end of September 2007, the interest rate on a 10-year maturing CBA bond issued by the Treasury Corporation of Victoria was 6.63 per cent, while a comparable Commonwealth Government bond was issued for 6.46 per cent (TCV 2007). However, in the mid-1990s, the margin between the two bonds was greater due a deterioration of the then credit rating of the state government.

Recent developments such as the reduced supply of Commonwealth Government securities and the Reserve Bank of Australia decision to accept CBA bonds as collaterals are likely to increase the appeal of CBA bonds to large institutional investors (RBA 2004). This, in turn, will improve their liquidity in the secondary market and thereby increase demand.

Borrowing through CBAs has a number of advantages including sourcing funds at a lower rate (due to relatively high credit rating of state governments) and the financial expertise of CBAs. However, when government issues bonds for infrastructure investment in general, there is no mechanism to price the risk associated with individual projects. It is also possible that excessive borrowing could adversely affect the government credit rating.

Box 4.3 Australian central borrowing authorities

Central borrowing authorities (CBAs) are statutory authorities established in the mid-1980s across all jurisdictions.

The key function of CBAs is to borrow funds on behalf of the state or territory government they represent. They also borrow funds for public entities such as government trading enterprises, local authorities and other governmental entities including education institutions and health and community service providers.

Central borrowing authorities raise funds by issuing debt instruments such as bonds in both the domestic and international debt markets. They then re-lend the funds to their participating authorities.

Borrowing through CBAs is compulsory for statutory bodies, publicly-owned enterprises and government departments in most jurisdictions, while it is voluntary for local governments.

The rationale for establishing CBAs was to bring borrowing under one umbrella for greater efficiency. The efficiency is derived from:

- the rationalisation of approaches to the capital market to avoid unwarranted competition for scarce capital funds
- improved liquidity of the bonds, improved debt management and enhanced secondary market turnover
- increased marketability resulting in lower yield and thereby lower cost of capital
- the provision of improved quality of information to investors, particularly in regard to the volume and maturity of existing securities
- the facilitation of new debt instruments to target household investors
- developing expertise and specialist financial skills at a jurisdiction level rather than at an individual authority level.

Source: Campbell (1981).

General purpose borrowing has often been cited as an effective means of ensuring that future generations of taxpayers contribute to the funding of long-lived infrastructure assets, consistent with the intergenerational equity principle. However, there is a risk that the funds raised might be used to finance uneconomic projects and current consumption expenditure. Such an outcome would impose a burden on future generations without a commensurate benefit.

The potential macroeconomic consequences of excessive levels of public debt are also an issue:

... unless the government ensures that it seeks an appropriate (community) return from infrastructure substantially in excess of the cost of funds, there is a bias in favour of

excessive ... provision ... relative to other areas of investment where funding costs must take account of the intrinsic risks of the venture. (Smith 1995, p. 184)

Specifically, general purpose borrowing that exceeds government capital formation — effectively a reduction in public sector net worth — could potentially lead to adverse credit ratings. This could in turn translate into generally higher financing costs that raise the overall cost of future public infrastructure investments.

Hypothecated taxes

It has been observed that the hypothecation of tax revenue is a relatively common practice in OECD countries (Premchand 1993), although there is no comparable data available to confirm this observation.

Fuel and other motor vehicle taxes, for example, have been used in some countries primarily to finance transport infrastructure.⁷ In the United States, all revenue from the federal fuel excise is dedicated to a highway trust fund for state and local government road infrastructure. Many state fuel taxes in the United States are also earmarked, at least in part, to fund road construction and maintenance.

Similar hypothecation schemes for road infrastructure spending exist in Canada, New Zealand and some European countries.⁸

7 The hypothecation of fuel and similar taxes was prominent in Australia throughout much of the twentieth century. During the period 1926 to 1959, and again in 1982, all or part of the revenue raised by Commonwealth petroleum excises was hypothecated to finance public expenditure on roads. Since 1991-92, successive Commonwealth governments have effectively discontinued this practice (Webb 2000).

State and territory governments also hypothecated a portion of their fuel franchise fee revenues to road infrastructure projects, until the High Court invalidated the use of franchise fees by the States in 1997. The Commonwealth subsequently entered into an arrangement to the effect that it would increase its excise duties, and return all revenue collected (less administrative costs) to the States as 'revenue replacement payments'. Under the 2000 Intergovernmental Agreement between the Commonwealth and the States, it was agreed that the revenue replacement payments would cease from 1 July 2000.

Most State and territory governments hypothecate a vehicles registration and licencing fees to road maintenance and construction. But these revenues only partly meet the expenditure requirements and require budget authorisation on an annual basis.

8 In Alberta and British Columbia, a gas tax fund has been established by the national government, whereby a portion of the federal excise tax on gasoline is transferred to municipal governments for infrastructure investment. In New Zealand, portions of fuel excise duties, road user charges and motor vehicle registration fees are hypothecated to a national land transport fund. The national government is currently investigating full hypothecation of the fuel excise duty to the fund.

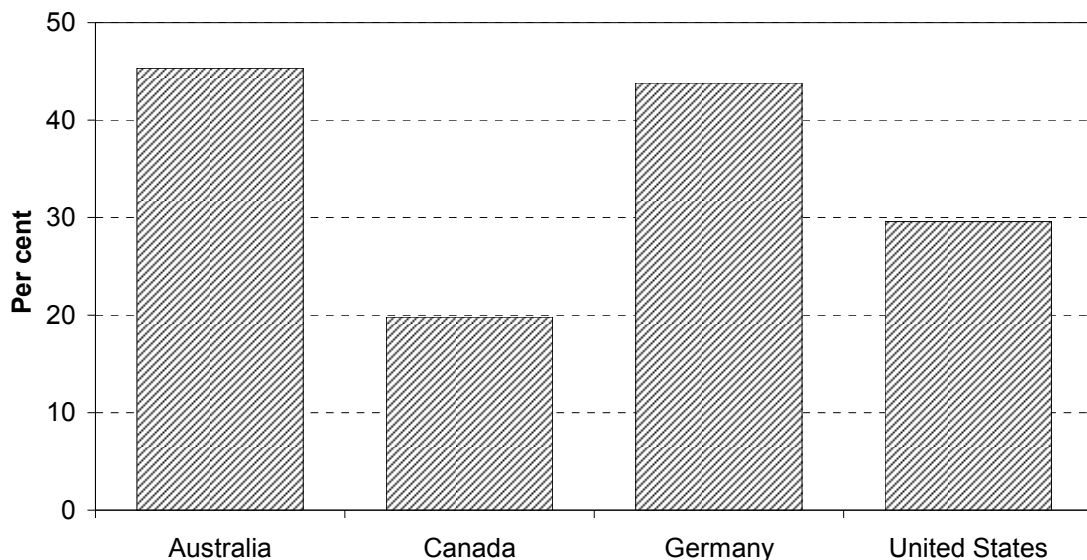
If properly constructed, a key benefit of hypothecating tax revenues to finance public infrastructure investments can be that it creates a more transparent and efficient link between the amount of services consumed by users and the taxes levied. A type of ‘quasi-pricing’ is established by imposing a tax on a good or service that is complementary in consumption with the publicly-provided infrastructure, and earmarking the revenue to financing infrastructure (Commonwealth Treasury 1996; Teja and Bracewell-Milnes 1991).

Intergovernmental transfers

The relative importance of intergovernmental transfers for sub-national government revenues varies considerably across the studied countries (figure 4.1). In Australia, intergovernmental transfers account for about 45 per cent of state and local revenues, whereas in Canada they represent only about 20 per cent of revenue for provincial and municipal governments (figure 4.1).

Some of these transfer payments are used to finance specific public infrastructure projects. In Australia, about \$3.7 billion of specific purpose capital payments were provided by the Australian Government to the States in 2006-07, and through the

Figure 4.1 National government transfers as a share of state and local governments revenue, various years^a



^a Includes conditional and unconditional transfer payments. Data for Australia are presented for 2000-01 and the other countries for 1995-96. Conditional transfers for Canada include funding under the Canada Health and Social Transfer (CHST) program.

Source: Watts (2005).

States to local governments (Commonwealth of Australia 2007). In the United States, federal intergovernmental transfers for highway construction, transit system development, water services and public housing were estimated to total approximately US\$57 billion in 2003 (OMB 2003).

Central governments also provide capital grants to local authorities in unitary systems of government, including France, New Zealand, Sweden and the United Kingdom. According to the OECD, the UK national government provided over €7 billion in capital grants to local authorities in 2004, and a similar amount was provided in France. Local governments in Sweden received €718 million from the national government in 2004. In New Zealand, total central government assistance (operating and capital grants, as well as subsidies) accounted for over 10 per cent of local authority revenue in 2006.

Grant assistance from central governments for capital infrastructure is generally regarded as being economically sound if the projects for which funds are provided generate spillovers within a country, or if they are projects in which donor governments have a specific interest or need (Boadway 2001; Kitchen 2004a; Oates 1972).

Intergovernmental transfer payments assist in alleviating fiscal imbalances at the sub-national government level. They can also close funding gaps where some state and local governments have inadequate revenues to meet their infrastructure and other expenditure needs, compared to wealthier regions of the country.

One criticism levelled at conditional intergovernmental transfers is that they can reduce the flexibility of sub-national jurisdictions to finance the public infrastructure projects that have the highest local priority (Walsh 1992). Further, conditional payments are ineffective unless they are tied to enforceable output-based performance criteria. Without such requirements, the grant receiving entity is not directly accountable for the effective and efficient use of the funds. Under these circumstances, the government making the transfer might not achieve its objectives, potentially with adverse consequences for efficient resource use.

Recipient governments can be required to provide matching funds, again resulting in sub-national governments spending on infrastructure projects that might not be their highest local priority (Kitchen 2004a). Kitchen (2004a) also argues that intergovernmental transfers could lead to inefficient sub-national revenue decisions. For example, there might be reduced incentives to pursue efficient pricing policies for infrastructure services where grants cover a large share of capital costs.

The provision of intergovernmental transfers can also create perverse incentives for ‘cost-shifting’ between levels of government. This occurs when one level of

government obliges another to assume new responsibilities or extend existing functions without fully financing the required expenditure. Such cost-shifting is likely to lead to shortfalls in infrastructure construction, maintenance and replacement or a lowering of service standards.

Moreover, intergovernmental transfers could lead to a confusion of objectives where different governments are involved (IC 1994). A shared responsibility for public infrastructure development could also weaken budget accountability since the community has greater difficulties in identifying which level of government is responsible for infrastructure investment.

Lower level governments can be vulnerable to changes in the level of transfers adversely affecting planning and financial management. For example, the Canadian city of Toronto received 75 per cent of public transit capital funding from the Ontario provincial government prior to 1998. This funding was abolished in 1998, only to be reinstated in November 2001 at a lower level than the historical amount of grant funding (Brittain 2002).

There are concerns that intergovernmental transfers, especially for capital projects, can be subject to political abuse. Milligan and Smart (2005) found that in Canada, seats with ‘swing’ voters and those with higher representations by members of the incumbent government are likely to receive relatively larger funds by way of intergovernmental transfer. Cadot, Roller, and Stephan (2006) reach similar conclusions on the regional allocation of intergovernmental transfer for roads in France. A Swedish study also found that seats with many ‘swing’ voters are likely to receive larger grants than other groups on average (Johanssen 2003).

In Australia, a recent report by the Commonwealth Auditor-General on the Regional Partnerships Programme found that:

... Regional Partnerships applications were received at a considerably higher rate from applicants located in electorates held by the Coalition parties than in electorates held by other parties. (ANAO 2007, p.23)

Budget and financial management reforms

In general, the framing of budgets has changed significantly throughout the OECD over the past two decades. Prominent reforms to government budgeting include the introduction of accrual accounting and budgeting standards,⁹ and the introduction of output- and outcome-based budget frameworks.¹⁰

9 There is a distinction between accrual accounting (the use of accrual accounting measures in reporting government financial activities) and accrual budgeting (the use of accrual accounting

Objectives of these reforms include ensuring that government decisions reflect the full cost of service delivery, and improving the effectiveness and transparency of financial and economic decision-making within the public sector. In turn, these reforms have important consequences for the use of budget appropriations as a financing vehicle.

Accrual budgeting standards

Since the 1990s, a number of countries — including Australia, New Zealand and the United Kingdom — have expressed government budgets and appropriations in full accrual terms. Accrual budgets recognise assets, liabilities, equity, income and expenses in the reporting periods to which they relate, regardless of when cash is received or paid. By contrast, cash budgeting systems record transactions only when payments are made or revenues are received.

A range of potential benefits have been attributed to accrual budgeting, including:

- improved cost information available to decision makers and greater discipline on budget execution — by facilitating decisions based on the total cost of producing outputs, rather than only on the immediate cash outlays associated with them
- the illumination of the long-term sustainability of public finances — by highlighting the long-term consequences of current expenditure and revenue decisions
- providing a catalyst for other public sector management reforms — by facilitating output- and outcome-based budgeting
- its synergies with accrual accounting practices of the public sector (Blöndal 2004; Champoux 2006; MAB 1997; Parliament of Canada 2006).

The proponents of public sector accrual budgeting also highlight its potential benefits in managing capital stocks (Blöndal 2003). Accrual budgeting is seen as providing better incentives to manage assets, plan investments and dispose of obsolete capital because capital is fully costed (box 4.4).

in the publication of government budgets, estimates and appropriations) (Blöndal 2003, 2004; Parliament of Canada 2006).

10 A number of OECD countries have embarked on other reforms that affect the budget appropriation environment. These include increasing government agency spending flexibility, relaxing input controls and publishing forward estimates of spending and revenue. These reforms, although at times relevant, are not discussed in this chapter.

Box 4.4 Capital financing and investment planning in the United Kingdom under cash and accrual budgeting

Until 1998, the UK public spending control framework made no distinction between current and capital expenditure in the budget. It had been increasingly argued that the practical effect of this was that government departments tended to divert capital spending at the margin to deal with short-term operating pressures. Over the long term, the result was that the UK public sector significantly under-invested compared to its published plans.

The UK Government introduced, in 1998, an accrual budgeting regime (known as Resource Accounting and Budgeting) to improve the departmental management of assets and their balance sheets. This included recording capital asset depreciation, a cost of capital charge and other provisions in Departmental Expenditure Limits.

These changes strengthened the incentive to manage capital assets more effectively, by recognising and placing limits on the economic costs of holding and using them. Departments were also set separate current and capital budgets with some limited flexibility to transfer resources between them.

Source: Emmerson, Frayne and Love (2004); OECD (2005b).

Under capital budgeting — an extension of accrual accounting — capital is not recorded as an expense when it is purchased. Instead, it is expensed over time as the capital is ‘consumed’ (Booth 1993). This has the effect of smoothing the budgetary impact of capital investment, and addresses the biases perceived to exist when capital investments are recorded as a ‘lump sum’ in the year of acquisition, as occurs with cash accounting (Blöndal 2004).

It should be noted that the countries with accrual budgeting have differing approaches to valuing government infrastructure assets. In New Zealand, for example, highway infrastructure is recorded at depreciated replacement cost, which is based on the estimated present cost of constructing the existing asset after allowing for the accumulated consumption of that asset. On the other hand, in Sweden, roads are recognised at acquisition value minus depreciation (Parliament of Canada 2006).

Despite widespread support for accrual accounting across the studied countries, some commentators have criticised aspects of its implementation. In a submission to a parliamentary inquiry into the transparency and accountability of Commonwealth public funding, Harris (2006) contended that appropriations for depreciation were inappropriate:

Depreciation is clearly an expense of conducting an activity requiring substantial capital assets. However, the cash so made available to the government is not required unless and until the asset is replaced. Moreover, the appropriation seems to have

neglected that, at the outset of the new financial arrangements, the Parliament had already provided the funds to acquire the assets being depreciated. Appropriating for depreciation reimburses the government for appropriations it has already received. (pp. 1–2)

Similarly, Bartos (2006) has criticised agencies being funded for depreciation while still receiving additional funding for new capital assets.

These issues suggest that the implementation of accrual budgeting can compromise its effectiveness. It is argued that ‘... [a]ccrual budgeting rests far more on assumptions and adjustments than cash-based budgets, and this implies the scope for politics is greater and the rules and accountabilities will inevitably become a contested terrain’ (Wanna, Kelly and Forster 2000, p. 269).

Notwithstanding the issues of infrastructure cost attribution and valuation, the value of accrual budgeting ultimately rests on the notion that the economic cost of providing capital assets is measured and recognised more accurately than under cash accounting budgets. This will, in turn, lead to more informed decisions regarding the extent to which governments finance their public infrastructure investments through budget appropriations.

Fiscal policy and fiscal rules

After World War II, many governments of OECD countries abandoned pre-war explicit or implicit fixed budget rules (such as the balanced budget principle). They did so in favour of a flexible Keynesian fiscal policy stance more responsive to changes in economic conditions (Buchanan and Wagner 1977; Schick 1998). Since the 1970s, however, concerns emerged over the consequences of the ‘crowding-out’ of spending options, such as productive public infrastructure investment, by increasing expenditure on welfare and debt interest costs (OECD 1995).

In response to these pressures, many governments introduced fiscal responsibility policies that apply fiscal rules to expenditure and taxation, as well as public debt limitation rules (box 4.5). However, they had the effect of limiting the amount of funding available to finance infrastructure investment, which in turn adversely affected economic efficiency (Clark, Elsby and Love 2002; IMF 2004a). As a consequence, there were calls for reform:

A relaxation of these [fiscal] rules could in fact improve economic performance if the bias against capital investments is lessened. (Mintz and Smart 2006, p. 3)

In the United Kingdom, HM Treasury has also expressed concerns about this apparent historic bias against public capital investment. They noted that it was rare

Box 4.5 Fiscal rules in selected OECD countries

Expenditure

In the United States, a *Budget Enforcement Act* was introduced in 1998 to cap discretionary spending, with sub-limits for specific expenditure categories. The Act also stipulated that legislated changes affecting revenues or mandatory spending programs (excluding social security) should be 'budget neutral'. Most of the provisions of the Act, however, lapsed in 2002, without being extended or replaced.

In 1996, Sweden established fiscal rules that set nominal expenditure limits for 27 expenditure areas (including social security) for a period of three years.

A number of governments also introduced legislation that specifies their stance on fiscal policy over time. In Australia, the *Charter of Budget Honesty Act 1998* requires that the government provide an annual statement of its fiscal strategy based on the 'principles of sound fiscal management' as specified in the Charter. Similarly, the United Kingdom's *Code for Fiscal Stability*, introduced under the *Finance Act 1998*, requires that the UK Government formally outline its fiscal policy objectives and fiscal rules each year.

The NZ *Fiscal Responsibility Act 1994* requires the national government to run operating budget surpluses on average over a 'reasonable' period of time.

Taxation

A number of states in the United States have employed constitutional or statutory limits on the power of governments to tax. For example, a referendum (Proposition 13) was passed in California in 1978 to impose a cap on property tax rates. Some OECD countries also impose limits on tax rates that can be set by sub-national governments.

Public debt

The European Monetary Union (EMU) Stability and Growth Pact obliges member states to avoid 'excessive deficits'. This is defined as general government sector deficits not exceeding 3 per cent of GDP and general government debt remaining below 60 per cent of GDP.

For many governments, arrangements are in place to monitor and limit borrowing by sub-national governments. The Australian Loan Council, established in 1927 to coordinate public borrowing, placed strict limits on overall public borrowing from the 1950s until mid 1995. Since then the Council operates on a voluntary basis, where each jurisdiction nominates a Loan Council Allocation for the forthcoming year. This indicates Commonwealth, state and territory governments intended net borrowing, which can be compared with their notional 'loan allocation'. The emphasis is on enhancing the transparency and accountability of public sector finances. These changed arrangements were designed to enhance the role of financial market scrutiny as a discipline on borrowing by the Australian public sector.

In the United States, by contrast, most states have legislative or constitutional limits on the issuance of general obligation debt.

Sources: Buiter (2001); Kennedy and Robbins (2001); OECD (2002b); Sutherland, Price and Joumard (2005); HM Treasury (1998).

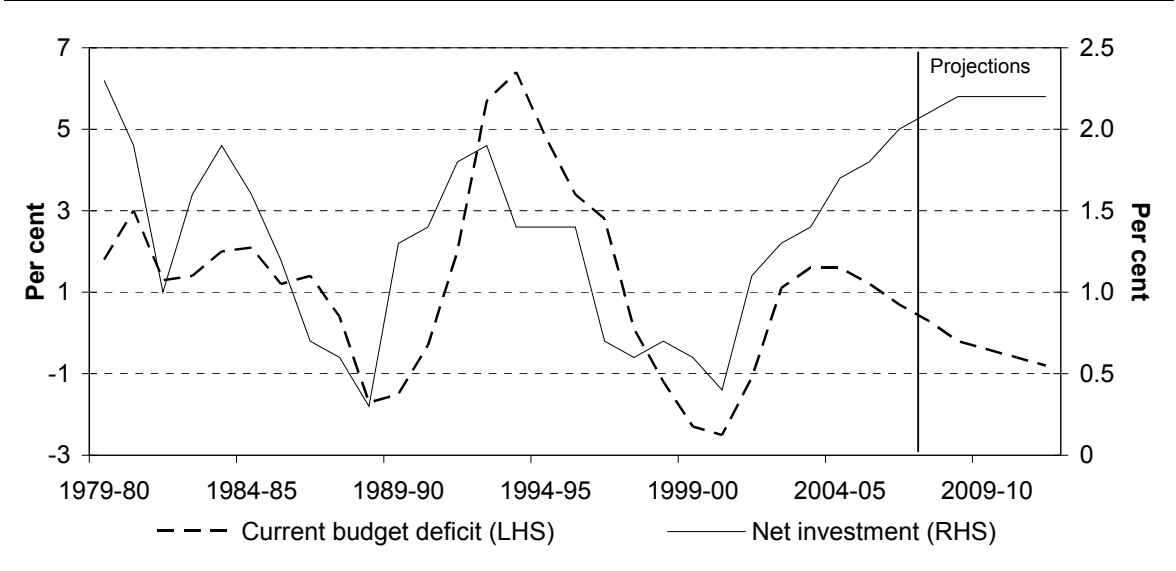
for public investment to grow during periods of fiscal consolidation aimed at reducing budget deficits. Accordingly, a new budget framework that made a distinction between current and capital spending was introduced.¹¹ This framework facilitated the application of two fiscal policy rules.

First, the so-called fiscal ‘golden rule’ requires that the government maintain an ‘operating’ or current budget balance over the economic cycle — rather than a cash balance or a zero ‘public sector net borrowing’ requirement. Balancing the current budget does not limit government borrowing to finance net investment in public capital. Second, the net public debt rule required that the government maintain net debt below 40 per cent of GDP — to ensure that borrowing for net investment is fiscally sustainable (Mintz and Smart 2006).

HM Treasury claims that the introduction of the new budget framework and fiscal rules has been successful in removing the bias formerly created against investment. As evidence of this success, it cites a recent break in the relationship between borrowing for current spending and borrowing for public investment (figure 4.2).

Most Australian state governments have also adopted fiscal strategies that enable them to fund most public investment through borrowing without incurring

Figure 4.2 Current budget deficit and net government investment in the United Kingdom, 1979-80 to 2011-12 (per cent of GDP)^a



^a Data for 2006-07 is an estimate and for 2007-08 to 2011-12 are projections. A negative current budget deficit is a current budget surplus.

11 The UK Government introduced a new budget framework in 1998 under its Code for Fiscal Stability.

operating' budget deficits.¹² The Australian Government, in contrast, have targeted a balance on the underlying cash surplus — or its accrual equivalent, the fiscal surplus — which necessitates funding public investment from current revenue.¹³

Commentators have argued that the imposition of such rules, in certain circumstances, provides governments with an increased incentive to make more efficient investments. Although limits are placed on the scope of government borrowing, beneficial government investment is not prevented (Schiavo-Campo and Tommasi 1999).

Output-based budgeting

In addition to developing a budget framework based on accrual accounting principles, some of the studied countries (Australia, New Zealand and the United Kingdom) have implemented output-based budgeting. This form of budgeting focuses on the delivery of outputs (the goods and services produced by agencies) to meet policy and program outcomes specified by government. The underlying rationale for this mode of budgeting is to place the government budget on an 'internal market' or 'purchaser-provider' footing to provide a greater focus on public sector performance.

The appropriations structure accompanying output-based budgets has changed significantly compared to previous budget frameworks (such as program-based budgeting). Under the Australian Government's output budgeting framework, appropriations are made for departmental operating expenses. These are made against one or more 'outcomes' for each agency. Appropriations for non-operating expenditure are made separately under 'equity injections' for each agency and not against outcomes.¹⁴

Appropriation-financed capital investment is generally sourced from both equity injections and payment for outputs (via funded depreciation). However, own-source funds held by departments, which do not require specific parliamentary

¹² For example, between 1995 and 2005 the NSW Government's fiscal strategy was based on the *Debt Elimination Act 1995*, which focussed on achieving cash budget surpluses (or accrual net lending surpluses from 2001-02) and the reduction of net debt. Since July 2005, the fiscal strategy has been based on the *Fiscal Responsibility Act 2005*. In addition to net debt and net financial liability targets, this Act uses the *operating* budget balance as the measure of the budget surplus.

¹³ Both the Australian Government and state governments have fiscal principles or 'rules' that seek to limit public net debt, either as a proportion of gross state product or as a proportion of revenue.

¹⁴ See the Australian Government's Appropriation Bills 1 and 2 (Budget Paper No. 4).

authorisation, have also been used to finance investment under output budgeting. Indeed, it has been argued that ‘[t]he significance of funded depreciation and own-source capital financing is so great that a department’s equity injection appropriation usually bears little relation to its capital expenditure’ (Robinson 2000, p. 5).

Criticisms have been levelled at the detail of reporting on appropriated outputs, specifically the consolidation of outputs into fewer categories. According to Harris (2006), ‘[w]hatever merit there was in linking appropriations to the programs managed by government disappeared when those program outcomes were severely contracted in number and broadened in scope’ (p. 2). Others have also pointed to the overly abstract manner in which government budget outputs and outcomes are described.

Difficulties in comparing spending measures across portfolios have also been raised (Bartos 2006; Wanna, Kelly and Forster 2000). In the New Zealand context, it has been stated that the similarity between classes of output has ‘... not provided a meaningful basis for organising departmental expenditure operations, much less for effective parliamentary scrutiny and debate of expenditures’ (Webber 2004, p. 336).

Despite these accountability and transparency issues, budgeting and financial management reforms have potentially enhanced ex ante and ex post scrutiny of government infrastructure financing priorities through parliamentary committees, auditing of government programs and broader community debate. General parliamentary debates and ongoing scrutiny given to particular activities or budget measures can significantly influence the executive’s formulation of the next budget (Wanna, Kelly and Forster 2000, p. 46).

Use of special appropriations

The importance of annual scrutiny by the legislature have been traditionally emphasised in the budget processes of the studied countries. However, over the past few decades, the degree of spending authorised in legislation through special appropriations which are not subject to annual scrutiny, has increased (OECD 2005b). This appears to be driven by, among other things, changes in the composition of government budgets due to the growth of ongoing welfare expenditure commitments.

In Australia, special appropriations are provided in Acts of Parliament for a particular spending purpose. Some special appropriations state an amount to be appropriated for a particular purpose — referred to as ‘limited by amount’. Others

do not state an amount, but are determined by legislative criteria. These are known as ‘standing’ appropriations.

Standing appropriations continue to have effect until the law containing them is repealed by the Parliament or until provisions within that law (such as, a ‘sunset clause’) end the effect of the appropriation (ANAO 2004).

The relative importance of special appropriations varies across the studied countries. In Australia, special appropriations at the Australian Government level comprise about 80 per cent of total appropriations in 2002-03. In contrast, special appropriations account for 25 per cent of total government expenditure in the United Kingdom (Parliament of Australia 2007).

Although it is not possible to quantify the use of special appropriations across the studied countries, it is likely that they are a significant financing vehicle (OECD 1995). A trend of increasing representation of special appropriations, however, inevitably reduces the proportion of discretionary funding available to finance new capital investments in the short term as circumstances change.

4.3 Strengths and weaknesses

Strengths

The main strength of the budget appropriation process, regardless of the method of raising funds, is the parliamentary scrutiny of appropriations. While there is still a cost of capital in either debt interest costs or opportunity costs, the transactions costs are low compared to most other financing vehicles.

Budget appropriations invite scrutiny

Budget appropriations have represented an enduring aspect of legislative control over the resources used by executive governments. The extent to which public infrastructure is financed through appropriations is a consequence of institutional arrangements and political processes, together with such factors as the maturity and depth of the capital markets as an alternative source of finance.

Appropriations enable a legislature, on behalf of the electorate, to exert some ex ante accountability over the expenditure of public finances. Indeed, ‘... without annual appropriation, parliaments begin to lose a degree of oversight on government spending’ (Parliament of Canada 2006, p. 30).

Transparency of government activities is promoted to the extent that government budget estimates are published for external scrutiny and examination.¹⁵ It ensures that legislatures retain a key position in holding governments accountable for infrastructure financing (OECD 1995). The quality of public budgeting across the studied countries is improving with budgetary reforms aimed at reflecting the full costs of asset acquisitions and related future liabilities.

There is less *ex ante* scrutiny for infrastructure financed by government trading enterprises (chapter 6), development contributions (chapter 7) and (in practice) public–private partnerships (chapter 8).

That said, the disciplines on investment and capital management provided by budget appropriation process are not necessarily as strong as those that are imposed with specific-purpose borrowing in mature capital markets. In raising finances directly in debt markets, governments and their entities have to submit project proposals to potential lenders, although scrutiny is likely to depend on the reliance on user-charges to fund the investment (chapter 5).

Intergovernmental transfers can address inequalities

Intergovernmental transfers tend to improve welfare where they generate spillovers within a country, or address vertical fiscal imbalance. They may also respond to equity concerns, helping close funding gaps where some state and local governments have inadequate revenues to meet their infrastructure and other expenditure needs, compared to wealthier regions of the country.

Weaknesses

The main weakness is the uncertainty that can arise in the availability of cash as required for the most efficient approach to building the asset. It is also possible that budget appropriations, like intergovernmental transfers, could reduce the incentives to explore the option of user charges with possible implications for efficiency. Full public funding can also reduce the scope to allocate project risks to those best able to manage them. These issues are discussed further in the rest of the study.

15 However, ‘... [i]t is essential not only that information be provided, but that it be relevant and in understandable form. Dumping on the public immense amounts of raw budgetary material does nothing to improve fiscal transparency’ (Schiavo-Campo and Tommasi 1999, p. 10). According to the IMF Code of Practice on Fiscal Transparency, other issues to consider include the clarity of fiscal roles and responsibilities, open processes of budget preparation, execution and reporting and independent assurances of fiscal integrity.

Other uses of government revenue may result in cash flow constraints on investment timing

A particular disadvantage of cash-based appropriations is the potential effect of ‘lumpy’ capital expenditure on the integrity of the overall budget. Lumpy expenditure reduces the scope to employ annual appropriations to finance infrastructure investment to the extent that other spending priorities are perceived to be non-discretionary.

Financing from higher level government grants can distort incentives for efficiency

There is potential for economic inefficiencies with provision of intergovernmental transfers to finance infrastructure:

- federal priorities may not reflect local priorities, a problem compounded if matching funds are required;
- the grant-receiving entity may not be directly accountable for the effective and efficient use of the funds, and conditional payments are ineffective unless they are tied to enforceable output-based performance criteria;
- there might be reduced incentives to pursue efficient pricing policies for infrastructure services where grants cover a large share of capital costs; and
- the arrangement may encourage cost-shifting which is likely to lead to shortfalls in infrastructure construction, maintenance and replacement or a lowering of service standards.

Key characteristics of budget appropriations

These strengths and weaknesses are reflected in the characteristics of the financing vehicle:

Risk management — while budget scrutiny provides one discipline on risk management, there is nothing in budget appropriation financing to force the management of project risks. For intergovernmental transfers, the accountability is further weakened.

Transaction costs — while the costs of arranging finance are low for budget appropriations, there may be high costs if projects are delayed due to constraints on the cash flow. Budget appropriations offer little scope to refinance the asset, although corporatisation of the entity ‘owning’ the asset and privatisation are avenues for refinancing.

Market and other disciplines — budget scrutiny provides some discipline on the investment decision and may address some informational asymmetries. There are no other mechanisms inherent in this financing vehicle that impose allocative efficiency.