

Government Debt Guarantee Fees*

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Some Historical Background

In the 1970s, statutory authorities of State governments could borrow (limited amounts) outside the Loan Council allocations which otherwise constrained the ambitions of State Premiers. Statutory authorities (not just government trading enterprises) proliferated – as did their borrowings – and it was not always easy to determine how much the state authorities had borrowed, and from whom. Things have changed a lot since then, and it's appropriate to start with a little bit of history to place debt guarantee fees into perspective as one component of public sector financial management arrangements.

In the early 80s, state Central Borrowing Authorities (CBAs) were created to take responsibility for borrowing and on-lending to statutory authorities. In the late 80s early 90s, emphasis moved to commercialisation of Government Trading Enterprises, and introduction of techniques for improving efficiency and accountability such as rate of return reporting. Commencing in the early 1990s, the privatisation agenda has seen the exit of many activities from the government sector. In the mid-1990s, national competition policy was introduced. From the late 1990s through to the present, there has been increasing emphasis on governance and accountability, and a continuing and increasing role for innovative financing and organisational structures for activities that the public sector is involved in, including PPPs and infrastructure financing arrangements.

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That history is relevant to the topic of debt (loan) guarantee fees. The state central borrowing authorities are obviously very important because of their role as the conduit through which most statutory authorities get access to debt finance. Commercialisation is relevant because many of the issues associated with debt guarantee fees are about improving efficiency of the Government Trading Enterprises. The privatisation agenda is relevant in two ways. One is that privatisation would remove the relevance of the topic if you took privatisation to its logical conclusion. It affects (reduces) the number of enterprises to whom the issue is relevant. But more importantly, debt guarantee fees, as a component of techniques for creating efficient public sector financial management, may influence the cost benefit calculus involved in determining the merits of privatisation (for those who might assess such things on a pragmatic rather than an ideological basis).

National competition policy, the good old Aussie concept of the fair go (in this case) for the private sector, is clearly relevant as one of the issues underpinning the introduction of loan or debt guarantee fees. Indeed, some prefer to use the term “competitively neutrality” fees rather than debt guarantee fees. Finally, the emphasis on issues of governance and accountability involves trying to ensure that financial managers in government enterprises are accountable and make sensible and appropriate decisions which take account of the risks involved. Particularly with the development of new innovative financing arrangements, this highlights the problem of determining the risks involved in such operations, and calculating appropriate risk related charges and fees to be incorporated in financing arrangements.

Defining Debt Guarantee Fees

What are debt guarantee fees? Effectively they’re just payments by the Government Trading Enterprises (GTEs) to their owner, the government, designed to compensate for the lower cost of borrowing that those institutions face, because of the higher credit status of the owner. That could arise in two ways.

One is the case of direct funding, when the GTE goes to the capital market (or financial intermediaries) and borrows in its own name. If it defaults, the private lender has recourse to the government as owner, or alternatively the government will step in and bail out the enterprise if it’s in risk of default. Clearly there is a competitive advantage (relative to a

private entity), because the private sector lender will provide funding at a lower cost to the GTE if it believes there is an implicit or an explicit government guarantee. Several Commonwealth GTEs borrow directly.

The other case, applicable in the case of State GTEs is indirect funding. Here, the government, through its CBA, borrows from the marketplace in its own name and on-lends to the GTE. Then, clearly, there is an automatic guarantee for the lenders involved since their claim is on the State Government – not on any individual GTE. The CBA (Government) takes on the risk of a GTE default. (Note, however, that the meaning of “default” in this context is somewhat elusive. The owner of the organisation (the government) has provided 100% of the funds to the entity – some part of it called debt and some part called equity).

The rationale for imposing guarantee fees is two-fold. One driver is the principle of competitive neutrality that holds that GTEs should have no unfair advantage over their private sector competitors. Such an advantage might arise because the private sector, or the financial market, in lending to the government enterprise, believes that there is lower risk because of the government ownership. (The same effect occurs if the CBA on-lends funds to GTEs without adding a margin for risk to the interest rate charged). That’s a very important part of the rationale for the introduction of these arrangements.

Equally important though, and something that shouldn’t be neglected nor de-emphasised, is the relevance of debt guarantee fees for efficient public sector management. GTEs, in making their financing, investment and pricing decisions, should take into account the true social cost of the funds that they are utilising. There is risk associated with their activities. In assessing whether one should take on a project, or how much to charge for undertaking a particular activity, efficiency demands that the decision maker allow for a cost of funds that is reflective of the risk involved in those activities. And the taxpayer obviously has a risk from GTE activities. Imposition of debt guarantee fees, if it’s done correctly, and that’s an important caveat, such that it does appropriately reflect the risk involved with the funding arrangements and the underlying activities in the organisation, should lead to better financial management decisions. It can lead to better alignment of the operating decisions and investment decisions of the organisation with the true social cost of the funds that they’re utilising. It might also

partially substitute for the monitoring and discipline role which capital markets and intermediaries play with regard to borrowers.

Debt Guarantee Fees and Public Sector Financial Management

It is worth elaborating somewhat to illustrate the point that debt guarantee fees are interlinked with other aspects of public sector financial management. Suppose that an entity can get a virtually unlimited supply of funds at a risk-free rate and invest them in a risky activity with a high expected return. With limited liability, there is an incentive to take on such high risk activities, and lots of them, even though they may not be socially justified. The reason for this is the transfer of the downside risk to the provider of the funds who is not being compensated for that risk in the rate of return required. The debt guarantee fees try to put in place the required compensation for the downside risk. Since the government takes on the downside risk (rather than the private suppliers of funds who have recourse to the government), the risk compensation is paid to the government.

Note that there are other ways of inhibiting this adverse effect. For example, quantitative limits on borrowing could achieve a similar outcome, as (perhaps) could appropriately designed incentive packages for decision-makers in GTEs. Indeed, for GTEs which are entirely equity funded (and where debt guarantee fees are irrelevant), the same issues of ensuring efficient risk based investment decision making and pricing arise.

It is therefore important to recognise that debt guarantee fees aren't something that operate in isolation. They are, and they have to be, part of an overall policy package designed towards promotion of efficient financial management and competitive neutrality. Here are some of the components of that government policy package, not all of which I believe are as simple to justify as might appear.

- Tax treatment of GTEs. Requiring GTEs to pay taxes (or an equivalent levy) equal to those which would be paid by an otherwise identical private sector entity could be argued to lead to equivalent (hopefully efficient) decisions and be competitively neutral. In practice, it is not quite that simple. Under the imputation tax system, corporate tax paid is partially “washed out” by personal tax reductions arising from

tax (franking) credits to recipients of dividends. Whether tax payments by GTEs to the government lead to the same final outcome is a general equilibrium problem which is not a simple one to solve.

- Dividend payments by GTEs to their owner. At first glance, requiring GTEs to pay dividends to the government similar to those paid by private sector companies appears sensible. Again, in practice, the issue is somewhat murky. Finance theory warns us that dividends may be irrelevant, unless taxes or other imperfections (including governance and information issues) intervene. And while they certainly do intervene, it is not immediately apparent that they have equivalent effects and implications in the case of GTEs relative to their private sector counterparts.
- Explicit community service obligation payments. Where governments expect GTEs to provide certain facilities and services at below cost or at subsidised prices, policies require that those items are explicitly accounted for and explicitly financed by government provision of funds to compensate.
- Equal regulation between private and public sector trading enterprises.
- Debt Guarantee Fees

All of these items are parts of an overall package of arrangements trying to ensure that GTEs operate efficiently and effectively, and equivalently to private sector enterprises. I'm not sure that they necessarily work because, according to the Productivity Commission (2002)¹, 50% of Government Trading Enterprises had a return on equity which was less than the long-term government bond rate. Now in theory that's possible: it could be that those entities have negative betas (to use a term from finance theory) and therefore the required return is less than the risk-free rate. But there wouldn't be many who would believe that story. So there is an issue as to whether all of these arrangements actually achieve the objectives to which they're directed.

¹ Productivity Commission (2002) *Financial Performance of Government Trading Enterprises, 1996-97 to 2000-01* <http://www.pc.gov.au/research/perfmon/perf0001/perf0001.pdf>

The Practical Importance of Debt Guarantee Fees

How relevant are debt guarantee fees in practice? Some indication can be gained from the information contained in the report of the Productivity Commission referred to above. There were about 64 GTEs monitored by the Productivity Commission in 2000-2001 across a range of areas (electricity, water, urban transport, railways, ports, Australia Post, Telstra). This does not capture the full range of GTEs, but gives substantial coverage. These organisations have \$45 billion worth of borrowings outstanding, assets of \$145 billion and annual revenue of \$55 billion.

These are not small sums. Moreover the GTEs have a range of experiences in terms of financial structure:

- debt equity ratios ranging from 3% to 3,000%
- interest expense to total expense ranging between 0% to 37%
- average debt to assets of 30%.

What does this mean for the managers of GTEs. In 2000-01, over \$132 million in debt guarantee fees were paid by the 36 GTEs for which the Productivity Commission had data. Alternatively, if it were assumed that the average fee charged was 50 basis points applied to all outstanding borrowings (of \$45 billion), the total would be \$225 million. So it's not an insignificant topic, either in aggregate or for managers of the more levered GTEs.

The Mechanics of Debt Guarantee Fee Payments

How do the government debt guarantee payments operate? They can operate in two different ways, depending on the way in which GTE borrowings are structured.

One possibility is that the GTE borrows directly from the capital markets in its own name. The issue then becomes whether there is an automatic government guarantee or whether there is explicitly no guarantee (no recourse whatsoever, to the government) such that repayment of its debt depends solely on performance of the borrowing entity. Alternatively it is possible that the borrower could have the option to purchase a guarantee from the government.

There are trade-offs involved here. The option of GTEs borrowing without guarantee raises the issue of credibility. Is it credible for a government to say “Our trading enterprise is borrowing and if it defaults, we’re not going to step in”? On the other hand if one puts in place guarantees, then one of the reasons for getting trading enterprises to borrow from the private sector directly is lost. The benefit in direct borrowing is that it leads to monitoring of the GTE by the private sector and market discipline aimed at ensuring the borrower has ability to meet obligated repayments. If guarantees are put in place, the lender has no incentive to monitor.

So putting in place guarantees, in a sense, destroys one of the rationales for sending the enterprise out to borrow in the private sector on its own account. An obvious question is whether debt guarantee fees can be structured to provide an impact on GTE efficiency equivalent to the private sector monitoring lost through the existence of the guarantee.

The other possible approach is the one that we see in the state government area where CBAs borrow from the private financial markets, and on-lend to the various GTEs. That means that there is implicitly an automatic guarantee. The government, the CBAs, raise funds at the risk-free rate, or at a rate that’s regarded as being appropriate for the credit status of that state government. That’s clearly less than what would be the stand-alone costs of a GTE with default risk borrowing from the markets. Unless there is something added on to the rate that the CBA charges to the GTE, the GTE would be getting funds at a lower cost than appropriate for its individual risk.

A third form of government “financing” raises a lot of similar issues. Financial engineering has created a multiplicity of ways of financing projects, activities, and capital items, beyond straight debt and equity instruments. There are different sorts of structured financing, leases, special purchase vehicles, non-recourse financing, contractual arrangements for outsourcing and PPPs. There are clearly many risk issues and risk transfer issues involved in these areas and it is appropriate to ask whether the risk transfer is correctly priced or involves some implicit government guarantees or contingent liabilities. I would hazard an opinion that derivation of appropriate debt guarantee fees is probably of less importance (and much easier)

than understanding and pricing the risk transfer implicit in these other contracting arrangements.

Determining the Appropriate Size of Debt Guarantee Fees: Some Questions

The magnitude of debt guarantee fees will depend upon default risk of the GTE and thus upon its leverage. In practice calculating some “stand-alone” credit rating for the GTE and a fee appropriate for that rating (based on private sector credit spreads) appears to be the favoured approach.

Who is it that determines the capital management policies and practices (ie leverage) of the GTEs. Is it some separately constituted board of directors or board of management who make decisions on their own account? Or is it the government owner who forces a GTE to have a high leverage (as high as 3,024% according to the Productivity Commission figures) by refusing to inject equity and forcing the GTE to finance operations by borrowing. If the leverage that the organisations operate with is determined by government (and pressures on government budgets) as opposed to an independent board of management making a commercial decision about the appropriate leverage, will the credit ratings be socially correct? If the leverage isn't optimal from the social perspective, then it's not clear that the ratings are going to be socially optimal nor are the guarantee fees that are related to those necessarily going to be the right ones. An important complement to the debt guarantee fee scheme is sufficient flexibility and appropriate incentives for GTE managers to optimally select the organisation's leverage.

A second issue is that of who assesses the stand-alone credit risk of GTEs? Practice varies across the States and the Commonwealth. Some use internally generated (independent) assessments, others rely on ratings agencies such as Standard and Poors or Moodys. Debt guarantee fees are based on market yield differentials of that rating (for private sector borrowers) relative to that for the Central Borrowing Authority. So there will be a margin related to the difference between the credit assessment of the enterprise and the credit rating of the Central Borrowing Authority or the State or the government.

A third question concerns how the debt guarantee fee is calculated. As noted above, the approach appears to be to base the fee on the credit spread for similarly rated private sector borrowers. But it is worth noting that credit spreads in bond markets reflect both the probability of default (PD) and loss given default (LGD) of the borrower. Credit ratings provide information only about PD. Whether LGD would be equivalent for corporate borrowers and GTEs is an unanswered question. Also important is the fact that most benchmarking of credit spreads for particular rating categories is based on US bond markets. Whether the spreads exhibited there are appropriate for different markets in which, for example, bankruptcy arrangements and thus, potentially, recovery rates are different, is also an unanswered question.

A final question that I raise at this stage is: why does the government need to do it? An alternative is to require GTEs to buy default protection insurance from the private sector? Why not have a situation where the GTE gets a private insurer to provide a guarantee against default on that borrowing of the organisation? The government doesn't actually have to be the guarantor. Again, you might have a credibility issue. One concern is that if the guarantor is called upon in the case of a default by the GTE and is unable to pay, the government may face pressure from investors in the GTE's debt. But investors in such securities would be hard pressed to mount a compelling case for such a second tier of free insurance. More relevant is the likelihood that a government may be unwilling to permit explicit default by one of its authorities, and bail it (and thus the security holders and private guarantor) out at the expense of the taxpayer before falls over.

Some Features of Current Practice

“Guarantee fees are based on the amount of financial accommodation utilised by the entity and all its subsidiaries at the end of the preceding year. For example, an explicit government guarantee is provided to businesses borrowing through the Tasmanian Public Finance Corporation. The Treasurer determines guarantee fees (subject to a maximum prescribed percentage of 1%).

At the present time government businesses are categorised as risk group A or risk group A-, with rates set at 0.33% and 0.43% respectively for the 2001-2002 financial year.”

<http://www.audit.tas.gov.au/reports/2002/Rep2v2.pdf>

This is an example of the way in which debt guarantee fees are determined, taken out of one of the Government of Tasmania’s publications. It illustrates one approach in one of the states. More common is the use of external ratings, and it is interesting to note the quite significant differences which emerge in fees charged – even among states using external ratings as a basis. Table 1, from the Productivity Commission demonstrates.

Table 1			
Guarantee fee rate schedules			
	basis points		
<i>GTE stand-alone credit rating</i>	<i>Commonwealth</i>	<i>New South Wales</i>	<i>Victoria</i>
	<i>(AAA)</i>	<i>(AAA)</i>	<i>(AAA)</i>
	2000-01	200-01	1999-00
AAA	0	0	0
AA+	2	9	6
AA	5	19	13
AA-	0	29	18
A+	0	39	23
A	50	49	28
A-	70	63	36
BBB+	90	81	46
BBB	100	104	58

Source: State and Territory government debt guarantee fee policies.
Source: Productivity Commission (2002)

There is quite a bit of difference between the fees charged for particular ratings categories by various governments. I would note, however, that the figures for Victoria and New South Wales are for different years, and that could reflect the fact that market based relative credit spreads for different ratings had changed between the years. More realistically, there is perhaps some judgement involved by government decision makers (perhaps reflecting different perceptions of LGD). Those differences flow into quite different impacts on the various trading authorities.

Table 2 is also taken from the Productivity Commission Report. The last column demonstrates that the contribution of the debt guarantee fee to the average effective interest rate, ranges from a high of 94 to a low of 17. There's clearly quite a difference across the states in terms of the impact of this on the borrowing costs of the authorities. That could reflect the possibility that in some of those states, all of the trading authorities are very well managed and have very high credit ratings, and don't in the other ones. But the previous slide, suggests that this explanation is not necessarily the appropriate one, and that state governments (at least at the time of this data collection) were applying quite different criteria.

Table 2 Debt guarantee fees 2000-01				
<i>Jurisdiction</i>	<i>GTEs in sample (a)</i>	<i>Total debt guarantee fee payments</i>	<i>Debt guarantee fee as a component of borrowing costs</i>	<i>Contribution of debt guarantee fee to average effective interest rate</i>
		\$'000	per cent	basis points
NSW	15	64 638	8.63	78
VIC	5	3 901	2.61	20
WA	1	4 005	2.49	17
SA	3	3 164	3.06	26
QLD	4	52 179	12.45	94
TAS	8	4 315	3.40	29
ACT	0	n.a	n.a	n.a
NT	0	n.a	n.a	n.a
C'wealth	0	n.a	n.a	n.a

a The number of monitored GTEs in each jurisdiction for which debt guarantee fee data for 2000-01 was available. n.a. Not applicable.

Source: PC estimates.

Source: Productivity Commission (2002)

Some Unresolved Issues

Is it actually appropriate for the stand alone credit rating to be used in calculating debt guarantee fees? The GTE is part of a portfolio of assets or institutions owned by the government. In any portfolio, you get diversification benefits. If the government owner of a diversified group of assets or a holding company in the private sector with a group of subsidiaries, borrows in its own right, the borrowing terms will reflect the less than perfect correlation of default across those various subsidiaries. That means that governments can borrow at a rate less than the rate that is applicable to the sum of the credit ratings of their individual enterprises. That means that there's a benefit in here for someone in terms of the diversification effect, and it's not clear who captures (or should capture) that in the overall arrangements for calculation of the debt guarantee fee.

A second issue concerns whether the fee that is set annually should be based on the current spread of the borrower or on some historical average of the spreads that applied when it raised the borrowings that it currently has outstanding? For example suppose a AA GTE issues \$100m 10 year debt in 2002 when the spread is 50 b.p. and another \$100 m 10 year debt in 2003 when the spread is 80 b.p. Should the fee in 2003 be $\$200m \times 0.80\%$ or $\$100m \times 0.80\% + \$100m \times 0.50\%$? Similarly, should the fees charged depend on the maturity of the underlying debt, the type of instruments involved, or on the frequency with which the fees are adjusted?

It is not clear from easily accessible sources what all the central borrowing authorities do in these areas. And that reflects, a third point which needs to be made. The information about this topic is not quite as transparent as it might be to the outside observer. It is possible to get information from various government websites about practices in various states, but I think if you look at the accounts or the annual reports of the various Government Trading Enterprises, you won't see that many of them list explicitly what amounts they were being charged. There is an obvious question of whether they should or shouldn't do so as an appropriate part of transparent reporting,

A fourth question, which I think is also an important one relates back to the determination of the appropriate fee based on market credit spreads. If we compare, for example, a Triple B

rated corporate against the Commonwealth government, the spread might be a hundred basis points. Of that hundred basis points, it's not clear that all of it reflects default risk. Some of it reflects systematic risk associated with the security and that would depend on the maturity of the security. Some of it is a spread for default risk. Some of it may be to do with liquidity and in some markets overseas, there are different tax arrangements between governments and private borrowers. And so it's not clear that one can take the credit spread of a private issuer against the government that we're talking about, and attribute all of that to default risk. Some part of it may be liquidity factors and one probably should cancel that out, although questions might be raised about whether this is consistent with a fair go or competitive neutrality for the (smaller scale) private sector borrowers against the government.

The International Perspective

To conclude, it is appropriate to ask what guidance on the issues raised above can be gained from overseas experience with debt guarantee fees? Unfortunately, the answer is "very little". There appears to be very little written on this topic, nor is much information available about implementation of such an approach elsewhere.

In the US there has been a lot of discussion about the government guarantees given to Fannie Mae and Freddie Mac and the Federal Housing Home Loan Board. Various studies have examined the size of the benefit.² Summarising those studies, the net advantage provided over comparable private sector entities with ratings of Double A or Single A is somewhere in the region of 20 basis points for short-term and up to 55 basis points for longer term.

Also relevant is the case of municipal bonds in the US, although a complication arises because those organisations are able to issue debt on which interest received is tax free. Notably, in the context of our earlier discussion, much of the borrowing by municipal utilities is without recourse to the municipality. Only around one-third of the bonds issued are General Obligation Bonds and the rest are Revenue Bonds where lender recourse is only to the cash flows of the borrowing entity. Even more notably, though, at least half of the issuers pay for

² See for example, Frank E. Nothaft, James E. Pearce, Stevan Stevanovic "Debt Spreads Between GSEs and Other Corporations" *Journal of Real Estate Finance and Economics*, Sept-Dec 2002, 25 (2-3) 151-172.

private sector insurance to protect the investor against default risk. (Investors also diversify away individual default risk by investing in municipal bond mutual funds). Some 917 municipal bond issues went into monetary default during the 1990s with a defaulted principal amount of over \$9.8 billion.³ But the default rate is relatively low (0.5% default rate) and does not appear able to explain the “muni yield puzzle” of a relatively high spread, raising questions about applying spreads observed in the private bond markets to public sector issuers.

And as a final point, it is worth reiterating the point that current borrowing arrangements for statutory authorities are just one of many ways of structuring and financing public sector activities. Leasing, Revenue Bonds, Special Purpose Vehicles, Public Private Partnerships (PPPs) may have advantages in some circumstances. The same issues regarding risk pricing and transfer in the determination of debt guarantee fees for standard common everyday garden borrowings apply equally to these more structured and innovative areas, as the following quotes from UK newspapers indicate.

“Watchdogs scrap over rail finance The Office for National Statistics could yet face censure over its decision to classify Network Rail as a private enterprise and thereby remove £9 billion of debt guarantees from the Government's balance sheet” *The Observer* Sunday July 28, 2002.

“A watchdog yesterday bared its teeth over Network Rail's £21bn budget by telling Britain's top civil servant he must sort out the dispute between auditors and statisticians over whether the rail investment programme should be classed as public or private spending. Network Rail plans to borrow on the open market, backed by government guarantees.” *The Guardian* Tuesday November 26, 2002

As noted earlier, correct determination of risk based fees for GTE borrowers is important, but may be of much less importance than correct assessment of risk transfer and pricing in the more innovative forms of public sector financial management and financing.

³ Standard & Poors JJ Kenny *A Complete Look at Monetary Defaults during the 1990s* June 2000, <http://www.kennyweb.com/kennyweb/mip/paydefault.pdf>