

BALANCED BUDGET VERSUS GOLDEN RULE: ON THE REMEDIABILITY OF FISCAL RESTRICTIONS

*Wolfgang Föttinger**

“The change in net worth is the preferred measure for assessing the sustainability of fiscal activities”.

International Monetary Fund (2000: 4.44)

1. Introduction

The sector general government in Germany in 2000 recorded Euro 36.2 bn for gross investment expenditure while depreciation of fixed assets amounted to Euro 33.5 bn giving an tiny increase in non-financial government worth (Euro 2.7 bn or 0.1% of GDP). This is to be seen against a reduction of the state’s net financial wealth as expressed in terms of a far higher financing deficit (1,0% of GDP, according to the Maastricht-definition¹). Some blame this on the concentration of public opinion upon the fiscal criteria of the Maastricht Treaty. Apparent consolidation successes of public authorities would eventually vanish or even revert to the opposite if a more expanded net worth perspective would be taken on (Easterly 1999). The deficit rule of the European Stability and Growth Pact, demanding a budget close to balance or in surplus, is attacked for not distinguishing between public consumption expenditure (“bad” deficit) and public capital formation that yields economic benefits in the future (“good” deficit).

Budget rules that incorporate the whole range of government assets and liabilities rather than a seemingly arbitrary subset of them would be an alternative. They all refer in one or another way to the “golden rule” of government financing which can be, very broadly spoken, expressed as the demand that as a consequence of state activity no less of society’s resources are passed to the future than the amount inherited from the past.

* Deutsche Bundesbank. The views expressed are my own and not necessarily those of the Deutsche Bundesbank.

¹ Excluding UMTS proceeds.

This implies essentially a notion of intergenerational fairness. The “golden rule” is indeed a very old topic but has regained interest recently, at least partly because of the decision of the British government to choose - as one of its objectives for fiscal policy - to borrow only to invest but not to fund current expenditure over the economic cycle (HM Treasury 1997)². Jurisdictions “down under” went even further: The government of New Zealand has to secure a position of positive net worth, to be able to cope with economic shocks. The legislature of the Australian state of New South Wales bound the government to maintain the value of government net worth in real terms.

In this regard, one could point to the fact that investment-related budget rules have so far played a disappointing role in securing sustainability of public finances. Take the rule in Germany’s budget legislation, limiting the amount of net borrowing to the sum of gross investment expenditures, as an example. It has been unable to prevent neither an enormous built-up of government debt nor an absolute decrease in government net assets (Deutsche Bundesbank 1999). This should come as no surprise since the German legislation suffers from a couple of constructional flaws³, and since the existing cash accounting system for Government does not allow to implement effectively concepts of government net worth. Conceivably, it would be precipitate to dismiss the golden rule as budgetary institution from past experience alone. New developments in government accounting and fiscal reporting could change the starting point of discussion. In fact, more and more governments world-wide are implementing accrual accounting and net worth concepts⁴ following the pioneering New Zealand example where a government net worth concept is from the beginning of the nineties an integral element of the budget process (Pallot 1994).

In view of the swelling stream of new information in government finance net worth based fiscal rules may become easier to implement than

² See Robinson (1998), Buiters (1998), Balassone and Franco (2000b).

³ The inclusion of investment grants in investment expenditure, the exclusion of any depreciation items, the inclusion of loans given but not of loans repaid, the exception clause in the event of a disturbance of the overall economic equilibrium, only to mention a few.

⁴ Accrual accounting means booking the value of resource use when it occurs and not when cash is paid out or received. Accrual accounting is the natural basis for coherent public sector balance sheets. In fact, it is possible (and practised) to set up balance sheets from an array of secondary sources. They are far less reliable, however, and only of a very limited use in monitoring fiscal policy.

in the past. However, there is an apparent discrepancy between the growing popularity of such rules and the lack of theoretical underpinning in the existing literature. This paper wants to contribute to the discussion by taking the explicit perspective of agency-cost economics, sometimes also labelled the new institutional economics or transaction cost economics. The „State“ represented by political decision-makers is viewed there as an agent who has to perform certain tasks on behalf of its principal(s) (citizen, voter, taxpayer). In fact, a sequence or chain of principal-agent relationships exists: voter to representative, parliament to government, cabinet to bureaucracy, bureaucratic superior to bureaucratic subordinate, and so on. Since agents are modelled as selfish actors, interest conflicts arise which can only be solved up to a limited extent due to asymmetric information and the impossibility of writing complete contracts. This implies efficiency losses as well as distributional consequences. From the normative side, agency-cost theory, used so far especially in industrial economics, but also in monetary policy, opens the opportunity to analyse the efficiency of alternative political institutions in minimising those transaction or agency costs⁵. Addressed to problems of sustainability of public finances the agency-cost approach differs from the sustainability analysis in the framework of the intertemporal budget constraint⁶. These latter exercises often have a flavour of “fiscal engineering” and seem to belong to the world of benevolent dictatorship. The formal fulfilment of the intertemporal budget constraint can imply highly inefficient fiscal paths⁷. In contrast, in our approach the question of sustainable public finances focuses on the proper functioning of political accountability mechanisms.

To evaluate government net worth concepts from an agency-cost perspective I want to take up the term *remediability*, introduced by Williamson (1993). It takes a different view on economic efficiency than that used in traditional welfare economics: a solution to an economic problem is said to be more efficient to an existing one if and only if it is feasible under current institutional conditions and can be implemented at reasonable costs. One should not judge the inefficiency of an actual alternative by comparing it to a hypothetical ideal. To curb the non-benevolence of political decision makers it may often be sensible to recur

⁵ See Williamson (2000) for an overview and definitory issues.

⁶ See Balassone and Franco (2000a) for a summary.

⁷ See Velasco (2000) for a formal treatment.

to simple rules having modest information requirements only instead of using highbrowed instruments delivering efficiency gains only in a world without agency costs.

An example from the field of public budgets showing the failure of a seemingly superior institutional alternative if the criterion of remediability is not taken into consideration can be found in the fiscal history of the United States throughout the Reagan administrations. One of the more important reasons for the breathtaking discrepancy between multiple-period budget plans envisaging persistently declining fiscal deficits and the appearing reality of record deficits is attributed to the concept of budget baselines, a special feature of the American budget process. Its basic idea was to enable a better assessment of the fiscal impact of new policy proposal by projecting what it would cost in the future to continue government as it exists today (Muris 1994: 42). Announced budget plans are not shown against past period figures but against the baseline only. To calculate the baseline the developments of prices and costs have to be estimated not only giving room for unintended forecasting errors but also for strategic manipulations, for example by assuming high inflation rates and boosting expected tax revenue, as it was depicted so vividly by Reagan's budget director Stockman (1986)⁸.

In the following sections, I will try to check for the remediability criterion regarding the use of government net worth concepts. It should be intuitively clear that information about the net worth position of the state and its development in time is valuable. In an environment where, contrary to private businesses, the simple yardstick of money profits is lacking transparency is the key item in order to hold decision-making agents accountable. Especially in the field of public management, the shift from

⁸ A further example comes from tax theory: A switch from direct to indirect taxes may be backed by efficiency considerations. The picture changes, however, if fiscal illusion on the side of voters/taxpayers is taken into account: direct or income taxes are more visible than indirect or commodity taxes. The greater the share of less visible taxes in tax revenue, the greater is the danger that taxpayers do not take full account of the price they pay for publicly-provided goods and services, and the higher is the desired level of government expenditure, in consequence. Examples from other fields are Dixit (1996) who discusses why it could be rational for workers of a non-competitive, import-protected industry to continue offering votes in exchange for state aid (in the form of tariffs and production subsidies) even when a pareto-superior bargain would be possible where they were compensated for potential job losses by transfer payments. Boyer and Laffont (1998) analyse the optimal design of instruments in environmental regulation. Sophisticated incentive mechanism suggested by environmental economics may be inferior if political agency costs are taken into account.

cash to accrual accounting paves the ground for making visible the effective resource use of public activity and to calculate what government output really costs. This holds probably even after accounting for implementation costs.

The question is more complicated, however, if it comes to the institutional design of binding budget rules, verifiable numeric objectives for fiscal policy or performance indicators based on such information sets. I start with the question whether borrowing should be allowed to fund public capital. Focussing on the agency costs of giving government politicians more freedom in budgeting decisions, I make strong reservations against the golden rule and in favour of the balanced budget rule. The subsequent section extends the discussion about the golden rule and looks at the whole of government balance sheets. I will argue that focussing exclusively on the value of government net worth is a poor remedy to cope with principal agent problems. Some concluding policy comments close the paper.

2. Classical Golden Rule: the State may borrow to fund investment

Suppose that a national or a sub-national budget process is currently regulated by a balanced budget requirement. The citizenry or their representatives in parliament now have to decide if henceforth the golden rule of government financing should be applied. The existing institution demands that current revenues have to cover current expenditure as well as capital expenditure. The reform proposal would allow borrowing to finance public capital formation. Problems of enforceability for both alternatives are assumed away. Those who fear that under a balanced budget rule some valuable investment projects cannot be funded, in particular as a result of the struggle of interest groups about current consumption and transfer expenditures, will eventually vote in favour of the golden rule. Others, who concentrate on the danger of political misuse if the room for fiscal manoeuvre for the government is expanded by such a regime, may instead propose to stick to the balanced budget rule. Hence, the respective amounts of agency costs from underinvestment on the one hand and from overinvestment on the other hand are crucial in this decision problem.

2.1 *The debate about overinvestment versus underinvestment*

Anecdotal evidence provides support for both underinvestment and overinvestment. In one respect, congested and worn down highways indicate serious deficiencies in infrastructure capital maintenance. On the other hand, public investment projects often seem to have their starting place essentially in status-thinking or clientele-orientation of politicians rather than to enhance productivity of private sector capital. Furthermore, extensive public ownership of land, forests and enterprises yielding profits below market rates is a sign of overinvestment. It should be emphasised that not to desinvest, if a changing political and economic environment would call for a partial retreat of state sector activity, would also fall under the agency costs of overinvestment.

Closer empirical investigation on the effects of budgetary institutions on government capital formation is rather scarce, especially if compared to the large body of literature on public deficits, debt levels and government size. Investigating differences in public capital across American states, Crain and Oakley (1995) find that institutions such as term limits, citizen initiative, and budgeting procedures as well as political conditions such as legislative stability and voter volatility were significant determinants of state public capital stocks and new capital investments during the 1980s. Cadot et al. (1999) test a 'pork-barrel politics' hypothesis of investment decisions for regional governments in France. Besides a relationship between the number of large firms in a region as an indicator of lobbying strength and the infrastructure investment allocation they find that public capital formation is higher if the regional government is formed by the same political party as the central government. Kemmerling and Stephan (2000) show in a panel study that investment grants from *Länder* governments to German cities – a crucial determinant of local public investment spending – are correlated with the correspondence of the ruling political majorities. Widely known is the study of Poterba (1995) where he analyses the effects of financing rules for capital projects on the levels of public investment in US states. The result is that states with separate capital budgets, especially those that are allowed to borrow for public capital investment, undertake more investment projects than other states. Furthermore, there is no evidence that capital budgeting influences the level of government consumption spending. These results could indicate either that budget rules of the golden rule family lead to politically induced overinvestment or that such

rules alleviate the effects of politically induced underinvestment if capital spending has to be financed from current tax revenue only.

Theoretical contributions that derive a political bias toward underinvestment in public capital formation include for example Peletier, Dur and Swank (1999). Building on the work of Tabellini and Alesina (1990) who initiated the theory of the strategic use of debt, in their model, the option of deficit financing produces a deficit bias but no bias concerning the structure of government expenditure. Measured in opportunity costs it is always cheaper to finance consumption by way of new debt than by reducing investment expenditure since the latter yields a future reward that relaxes the government budget constraint. If borrowing is forbidden, uncertainty about future political majorities causes a suboptimal investment level. The higher the probability that the governing party (the median voter) tomorrow will be different from that of today, the lower will be the amount spent on investment since the proceeds of that investment will then be disbursed for public consumption goods that are only elements of the utility function of the new majority. Following a related line of reasoning, Leblanc, Snyder and Tripathi (2000) show that when investment and spending decisions are made by majority-rule, even fully informed, non-myopic citizens will typically choose an inefficiently small level of public investment. Both models suffer from an implausible dichotomy between public consumption and investment goods, however. The utility of public consumption is regarded as being specific to certain voter groups while the returns to public capital are, quite unrealistically, modelled in units of a means of payment and can be transformed into any future consumption good without any transaction costs. And even if the (non-monetary) proceeds of public capital formation are valued equally by all groups of voters, there is far less reason for the strategic use of the share of investment in the public budget⁹.

2.2 *A simple principle-agent model*

To explain underinvestment as agency-costs of a balanced budget rule one would have to resort to additional arguments like voter myopia (“we would care about public capital if we would know how useful it

⁹ See also Glazer (1989) for an argumentation why government policy may be biased to build „durable“ projects.

is...”) or intergenerational egoism (“let us loot public wealth since we do not care about our offspring’s well-being...”). Myopia is a popular but analytically difficult category. Age specific distributional conflicts have been studied extensively in the literature¹⁰. Less attention have so far received the agency-costs of overinvestment under a golden rule. Here, I will concentrate on the costs that arise if egoistic political decision-makers are given the freedom to borrow any amount charging the public purse if only investment expenditure of equal value is recorded in the budget.

Consider the following simple principal-agent problem: Starting point is a budgetary equilibrium under the restriction of a balanced budget rule. Due to constrained tax revenue, perhaps resulting from a Laffer-curve effect, some public investment projects are not realised, that is the inefficiency situation of underinvestment has to be identified. The government as an agent of the citizenry may now fund those additional investment projects by borrowing money. The principal, once she has approved of this new mode of financing, cannot control the agent concerning the level and the structure of deficit-financed investment expenditure. It is assumed that a public investment project exists yielding returns of $R + \varepsilon$ where ε is a normally distributed random variable with mean zero and variance σ^2 . The return variable is assumed to have a positive value and is a discounted value and net of borrowing costs as well as net of the operating costs of running the project.

The level of investment as a multiple of that investment project is denoted by Q . It would probably be more realistic to presume decreasing rates of return. Yet, the main results are not changed if, for example, a linearly descending schedule of the marginal efficiencies of capital is assumed. How the profitability of public sector capital can be measured is a widely discussed question. It reaps typically no direct monetary profits but has its effect through the promotion of private sector productivity leading in the end to higher tax revenue. This issue will not be developed here.

As usual, the principal-agent problem is defined by the utility function of the principal, the participation constraint of the agent, and the incentive constraint of the agent (equations (1) to (3)).

¹⁰ See Rangel (2000) for instance.

$$(1) \quad E(U_P) = (1 - \beta)RQ - \frac{1}{2}r_P(1 - \beta)^2\sigma^2Q^2 - \alpha - BQ$$

$$(2) \quad E(U_A) = \alpha + \beta RQ - \frac{1}{2}r_A\beta^2\sigma^2Q^2 + BQ \geq \bar{u}_A$$

$$(3) \quad Q \in \arg \max \left[\alpha + \beta RQ - \frac{1}{2}r_A\beta^2\sigma^2Q^2 + BQ \right]$$

Equation (1) is the expected utility of the principal. Both principal and agent are assumed to be risk averse. Standard models, especially in industrial and financial economics, usually regard the principal as risk neutral. This simplifying device is justified by pointing out that a single shareholder can reasonably be presumed to hold only a infinitesimal small proportion of his wealth in any one firm, and should be fully diversified in the total of his portfolio. Contrary to shareholders, voters or citizens should be modelled as risk averse principals since it is not possible to diversify a nationality. The linear formulation in (1) of mean and variance has been obtained by assuming constant absolute risk aversion¹¹. It is further assumed that the principal's parameter r_P is not greater than r_A , the risk aversion parameter of the agent.

In deciding about the level of investment, the agent tries to maximise its own utility as shown in equation (3). Following the well known arguments of bureaucracy theory, I assume that the level of investment expenditure he commands provide the agent with a proportional utility BQ , $B < R$. The introduction of B as the driving force of overinvestment can be motivated by the experience that politicians decide upon investment projects with a small or even no economic value to society. Pronounced examples are the so-called white elephants in developing countries (Pritchett 1999). But also in mature democracies investment decisions are often made with regard to personal prestige (pyramid-building) or re-election prospects. Perhaps the most extreme form of bureaucratic maximisation can be found in socialist economies. The so-called investment hunger is a stylised fact of socialist systems. The socialist planners' objective to maximise capital per capita but not consumption per capita was an inevitable consequence of the incentives to

¹¹ As in the utility function $U = 1 - \exp(-rx)$ with r as parameter of risk aversion. If the wealth variable x is Normally distributed a monotonic transformation of expected utility as implicitly carried out here is feasible.

the bureaucracy (Zou 1991). One should note, however, that top level managers in private firms have comparable incentives to overinvest¹².

The only way for the principal to influence the agent's decision is a compensation schedule here for simplicity taken as linear scheme consisting of two parts, a sharing parameter β ($1 \geq \beta > 0$) which divides the return of investment between principal and agent, and a constant term α which merely redistributes wealth. The parameter β can be interpreted as a monetary reward as well as an indicator of the probability of re-election. Thereby it is not necessary to model explicitly the threat of electoral defeat by a challenging party or a contending politician. Simply the mere existence of willing office-seekers „...gives the voter whatever leverage he has on the incumbent“ (Ferejohn 1986). An additional adverse selection problem would arise if there were different types of candidates for running the government with different but a priori not observable qualifications or “social motivations” in the sense of considering the interests of the principals besides personal motives. In the following, this possibility is neglected, and candidates with identical abilities are assumed.

Equation (2) defines the minimum compensation in terms of certainty equivalent that must be given to the agent in order to induce him to accept the contract. If the principal could control the agent's action, he would maximise (1) with regard to (2). The optimal investment level would be

$$(4) \quad Q^* = \frac{R(r_P + r_A)}{\sigma^2 r_A r_P}$$

The optimal incentive scheme implies optimal risk sharing between the two parties¹³:

$$(5) \quad \beta^* = \frac{r_P}{r_A + r_P}$$

¹² This is the phenomenon of the so-called empire builders (Aggarwal and Samwick 1999). Anecdotal evidence suggests that the wave of mergers and acquisitions in recent years often is not augmenting but wiping out shareholder value.

¹³ The second-order condition for the agent is satisfied for all admissible values of β .

However, the agent was assumed to be free to choose the level of investment after the principal has announced the ruling incentive scheme. Using (3) leads to

$$(6) \quad \hat{Q} = \frac{\beta R + B}{r_A \beta^2 \sigma^2}$$

With (6) it is easy to see that overinvestment in proportion to the intensity of bureaucratic capture occurs at β^* , compared to (4). The principal can only try to reduce overinvestment by adjusting β given the agents choice regarding \hat{Q} . If it is assumed that the market for politicians features perfect competition, the agent can be kept at his reservation utility via adjusting the transfer parameter α . Thus, after substituting α in (1) such that the equality sign in (2) holds, the principal's optimisation problem is:

$$(7) \quad \text{Max}_{\beta} E(U_P) = RQ - \frac{Q^2 \sigma^2}{2} (r_P (1 - \beta)^2 + r_A \beta^2) - \bar{u}_A$$

Inserting (6) into (7) produces

$$(8) \quad \text{Max}_{\beta} E(U_P) = \frac{(\beta R + B)R}{r_A \beta^2 \sigma^2} - \frac{(\beta R + B)^2}{2(r_A \beta^2)^2 \sigma^2} (r_P (1 - \beta)^2 + r_A \beta^2) - \bar{u}_A$$

The necessary condition for an optimal solution $\hat{\beta}$ is

$$(9) \quad \frac{\partial E(U_P)}{\partial \beta} = [(r_A)^2 \sigma^2 \beta^5]^{-1} [-\beta^3 R(r_A + r_P)(R - B) - \beta^2 (2r_A RB - B^2(r_A + r_P) + 4RBr_P - r_P R^2) + 3\beta r_P B(R - B) + 2r_P B^2] = 0$$

There is (at least) one solution for $\hat{\beta}$ in (7) for $\beta \in]0,1[$ since it can be shown that $\partial E(U_P)/\partial \beta < 0$ for $\beta = 1$, $\partial E(U_P)/\partial \beta \rightarrow +\infty$ if $\beta \rightarrow +0$, and since the function $\partial E(U_P)/\partial \beta$ is continuous in the relevant range. It follows directly that the second order condition holds also, as $\partial^2 E(U_P)/\partial \hat{\beta}^2 < 0$.

Variation of parameters near the optimal sharing rule $\hat{\beta}$ is obtained by differentiating the implicit function given by (9). Not surprisingly, we have a negative influence of a higher r_A and a positive influence of greater value of r_P on $\hat{\beta}$. The effects arising from variations of either B or R are more difficult to trace analytically. However, for reasonable parameter domains the intuitive results apply that a higher degree of bureaucratic capture must be compensated by stronger performance incentives, and that a higher expected profitability may allow to reduce the strength of incentives. In any case, β^* , the solution of optimal risk sharing at the absence of bureaucratic capture, is the lower bound for $\hat{\beta}$.

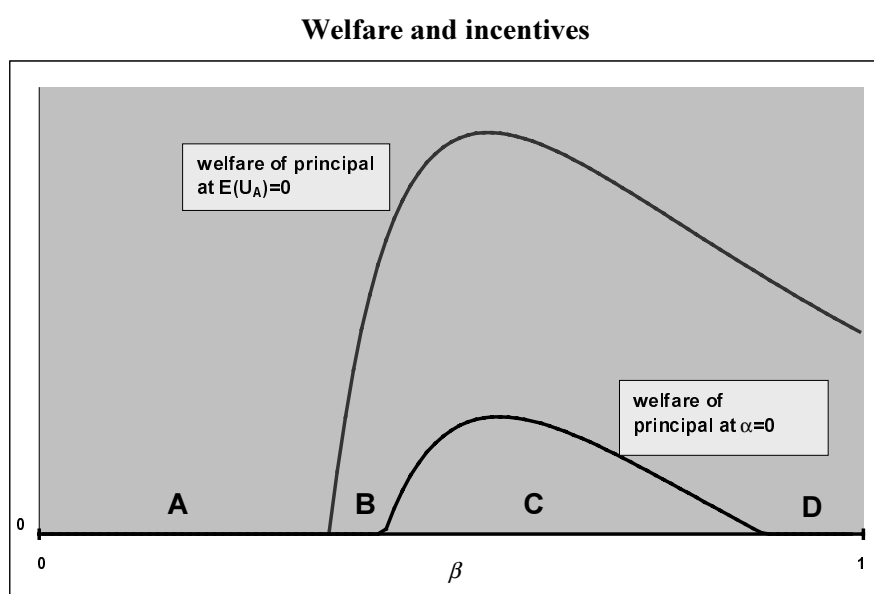
2.3 Discussion

We have the result that it is possible to minimise additional agency costs in case politicians are allowed to invest on credit. However, we are interested in the choice between budget rules. The principal should opt for the balanced budget rule if the golden rule arrangement would imply losses or no additional benefits. If, on the other hand, an incentive scheme would be available that keeps the agency-costs of overinvestment below the benefits of additional investment projects he should choose the golden rule.

Figure 1 shows welfare as a function of the incentive parameter β at reasonable parameter values¹⁴. The reservation utility \bar{u}_A is set to zero. The upper curve shows the principal's welfare if he can force the agent to his reservation utility; the lower curve shows the principal's welfare if the agent successfully captures an amount of rent at $\alpha = 0$. The division of total welfare hinges on the value of the parameter α in the payment schedule. If the participation constraint is binding, the upper curve is the relevant one. If there is no competition on the market for government politicians, for example if politics is a "closed shop" and the ruling elite represents a distinct class of persons, political agents cannot be forced to their reservation utility.

¹⁴ $r_A = r_P = 1$; $R = 0.04$; $B = 0.004$; $\sigma = 0.05$.

Figure 1



Using the graph, one can distinguish four different situations. In interval A the golden rule is unambiguously rejected (welfare is set to zero accordingly). In intervals B and D, no clear decision is possible. In interval C (possibly empty, depending on parameter values), welfare is positive, even after deducting all agency costs. In any way, high values of β are necessary to make the golden rule arrangement a valuable bargain for the principal. In the following, I want to discuss if the peculiarities of the principal-agent relationship studied seem to support the potential for such an incentive scheme.

a. Low powered incentives

This is the most obvious reason why the remediability criterion may fail. In contrast to managers of private firms it is generally not possible to have high-powered incentives regarding to the success of investment projects for government officials/politicians. In the public sector, we find constant salaries with no performance based pay elements. There are exceptions to the rule. The Canadian province of Manitoba laid down in its

“Balanced Budget, Debt Repayment and Taxpayer Protection Act”¹⁵ that cabinet ministers have to accept cuts in salaries of 20 to 40 percent if in any past budget year a deficit not backed by explicit legal arrangements occurs¹⁶. In the course of public management reforms there has been among others a tendency of linking reward with performance. In New Zealand, cabinet ministers are not the administrative heads of their ministries or departments. Instead, they are one party in a fixed term contract with a “chief executive” who commits to deliver certain outputs having far-reaching freedom of choice how they organise, staff and run the department. Salaries of chief executives are not uniform, sometimes even higher than that of the Prime Minister, and contain an element up to 15% of their total remuneration package conditional on performance¹⁷. However, these isolated examples of incentive schemes merely permit a variability in remuneration far smaller than that available to make compatible the interests of shareholders and managers, for instance in the form of stock option plans. Hence, it may not be possible to implement the incentive schemes derived from theoretic arguments.

b. Different time horizons

The proceeds of public investment often accrue during an extended time period covering sometimes several decades. The planning horizon of politicians should be much shorter, sometimes only one election period. This leads to higher discount factors for agents as compared to the principal. Thus there are additional limits in sharing the benefits of investment. We would have to introduce a parameter of effective incentives β^e being strictly lower than β . As a consequence, the curves in figure 1 shift to the right thus aggravating (at least in some cases) the problem of low-powered incentives discussed above.

¹⁵ See the text of the law at <http://www.gov.mb.ca/chc/statpub/free/legdbindexna-f.html>.

¹⁶ The Canadian provinces Northwest-Territory and Yukon-Territory have chosen even stronger sanctions in the form of a possible removal of cabinet members and dissolution of Parliament (Millar 1997). See for instance the Statutes of the Yukon, 1996, Taxpayer Protection Act, Article 6 (1): *If the non-consolidated public accounts laid before the Legislative Assembly show that an accumulated deficit has been created or increased, as compared to the immediately preceding non-consolidated public accounts, the Government Leader must (a) request before February 1 of the following year that the Assembly be dissolved, and (b) if dissolution is granted, forthwith recommend that writs for a general election be issued.*

¹⁷ See Gregory (2000); State Services Commission (1998).

c. Non-credibility of incentives

The principal's promise to give something worth of βRQ to the agent is not credible since the principal could renege the contract. The assumption that voters can commit themselves to a payment scheme has mainly been made in order to give the election mechanism the best chance to motivate political leaders to invest in long-term, efficient projects. However, from a strictly democratic point of view, voters are unable to commit future citizens to adhere to a particular voting behaviour. The contracting problem is rooted in the uncertainty about future electoral interests and the liberal principle of democracies to allow for free and anonymous voting behaviour in elections¹⁸.

d. Ex post verification of rates of return

This can be seen as an argument concerning the principal agent relationship between government on the one hand and bureaucracy or contracting firms on the other hand¹⁹. Investment projects regularly take some years until completion with yearly revised expenditure allocations. The initial decision on the project is made on the basis of a cost benefit analysis. After the first stage of the project is completed, the projected cost schedule has to be revised upwards. Such cost overruns are frequent in the public domain and can either be attributed to unforeseeable cost developments or to the firms deliberate deception as regards cost data in order to get the project started. A variant of the cost overrun argument is the case of unexpectedly high maintenance costs, for example in the form of staff and energy costs to run a public facility. The government then has the choice of abandoning the project altogether or to back it by appropriating new funds. Clearly, stopping the project comes with the political cost of admitting to have made the wrong decision. Dur (2001) models these costs in looking at the repealing of a policy as a (bad) signal to voters about the policy maker's competence if they do not have full knowledge of his abilities and competence influences the variance of the return of investment. Under a golden rule, only the characteristic of being an investment expenditure, regardless of the rate of return, is the criterion

¹⁸ Gersbach (2000) studies mechanisms comprising combinations of incentive contracts and elections which can, under certain assumptions, mitigate this problem.

¹⁹ Inspired by Tirole (1994: 20).

to approve expenditure. Hence, downward revision of returns or unexpected cost increases can be absorbed in a formally accurate way simply by borrowing more funds. Contrary to this, with a balanced budget rule new costs arise in reducing other expenditure items or increasing taxes. Only if opportunity costs are low enough, is the investment project continued²⁰. Since the firm realising the investment project knows this in advance, it has less incentives to hide the true costs of the investment. The balanced budget rule is in comparison to the golden rule a (more) credible commitment for the government not to continue projects with significant cost overruns eradicating their profitability.

e. Multiple principals (common agency)

The principal agent relationship between citizens and government is in reality not that simple as outlined above but characterised by common agency: the agent is not confronted to a single, homogeneous principal but to several interest groups with very different, and often irreconcilable ideas about what government should do. This problem was formalised by Dixit (1996, 1997), Dixit, Grossman and Helpman (1997) and others. To see its relevance here, suppose that there are M different principals or groups of voters with distinct valuations of the N different types of public investment projects²¹. Any principal offers the agent a separate contract with individual sharing rules for each type of investment. It will concentrate high rewards to projects favoured and low or even negative values to projects disliked. The decision of principals regarding their payment schemes can thus be detrimental to each other, and the strength of combined incentives the agent is confronted with is weakened.

To simplify, I assume for the moment that N equals M and that each principal is only interested in one type of investment where he offers an incentive scheme to the agent whereas he does not care about other incentive schemes. On the other side, all kinds of investment project are financed together by government debt, and subsequent payments of interest and principal are laid on all principals in equal shares. A standard common pool problem arises: in terms of our simple model above this

²⁰ I abstract from the costs of compensation claims if firms can refer to long run contracts.

²¹ Alternatively, it would be possible to think of the same investment categories but with different financial burdens on the distinct interest groups, perhaps due to progressive income taxation.

would lead to the effect that the individual net return on investment (parameter R) rises with the number of principals. Consequently, the utility maximizing value of the parameter β decreases. If all principals behave in such a way – and it is individually rational to do so –, the equilibrium amount of total investment is inefficiently high. The externalities between principals due to the financing mode could be internalised by collusion. Principals could act as one virtual principal, agree a single reward scheme with the agent, and share the proceeds and costs of investments on a later stage. Transaction costs and commitment problems make this not a realistic option, however, especially if returns on investment are not transferable, thus demanding an additional system of side payments. Common agency thus aggravates the problem of overinvestment already present in the case of a single principal. Furthermore, it can be imagined that the bargaining power concerning the redistribution of rents (parameter α) shifts to the disadvantage of principals the more heterogeneous the constituency is.

Intergenerational conflicts can be regarded as another facet of the multiple-principal nature of government. In particular, the question of intergenerational equity has become a more and more important issue in the discussion on budget rules and fiscal sustainability. The point will not be addressed further here since the theoretical problems connected with it seem to deserve a special treatment. The difficulties start with the different meanings of the term “generation” which can be understood either as the people alive at one point in time or as the people of the same birth year²². Although it is often stated that passing undiminished government net worth from period to period is a matter of intergenerational fairness²³, no convincing definition of what equity between the generations should represent has been delivered so far. Their analytical treatment is further complicated by the fact that they are muddled up with several intragenerational conflicts (between those with and without descendants, for example).

To sum up: Balanced budget requirements are often criticised by economists for being too inflexible regarding the influence of the business cycle on budgets, and for not distinguishing between consumption expenditure and public investment. However, the golden rule as an

²² Robinson (1997) has demonstrated how both concepts can be reconciled.

²³ See for instance HM Treasury (1998).

alternative budgetary institution does not satisfy the criterion of remediability if the agency-costs of overinvestment resulting from bureaucratic capture are taken into account. The main reason for this lies in the difficulty to establish high-powered incentive schemes in the public sector. It should be stressed that a balanced budget rule in itself does not prevent distortions due to bureaucratic self-interest or political distribution conflicts. But it puts a ceiling on these agency costs. Related costs of underinvestment seem to be of no great importance if they are based, as done in the literature, on an artificial separation of distributional conflicts about public consumption expenditure items on the one hand and capital expenditure projects on the other hand. And even if they do exist, they may be acceptable because the costs of giving political agents the necessary autonomy in budgeting are much higher.

If the argumentation holds, the decline of public capital spending during periods of fiscal stress observed in statistics has to be addressed in a different way than demanding reform of overall budgetary rules. One reason could simply be the fact that the overwhelming part of public spending is predetermined by “maintaining the status quo”, that is running existing facilities, executing current legislation and serving social benefit entitlements. Also, the ongoing tendency to outsource public services to private suppliers may be an important factor. Especially in the United Kingdom (Pollitt 2000), more and more infrastructure investments are financed, built and run by private enterprises²⁴. A one-time public capital expenditure is thus transformed into a stream of service purchases from those private suppliers. Regarding the services available to citizens, no change to the worse would have occurred as may be concluded from existing statistics.

3. The balance sheet perspective: maintain government net worth

So far we looked at fiscal restrictions for financing new investment projects. This is the perspective of most existing golden rule based budget institutions. The actual performance of past investments was not taken into

²⁴ According to the Treasury, estimated capital spending by the private sector-signed deals in the framework of the so-called Private Finance Initiative now is at a magnitude of more than 10 percent of total public sector gross investment.
(<http://www.hm-treasury.gov.uk/budget2000/fsbr/chapc.htm>)

account. With government balance sheets based on fully integrated accrual accounts it becomes possible to consider this as well as all other changes in all kinds of assets and liabilities, for short, to focus on government net worth.

In fact, a change in net worth can be caused by a positive value of operating balance, by capital gains and losses, by changes in the reporting entity as well as by changes in accounting policy. The balance sheets of the Government of New Zealand record from fiscal year 1992 to fiscal year 2000 an impressive increase in net worth from a negative value of NZ\$ 7.9 bn to a positive value of NZ\$ 8.6 bn. Having a closer look at financial statements reveals that just under fifty percent of that increase was attributable to surpluses from operations. More than a third of the change resulted from periodic revaluation of the physical capital stock, and the rest was caused by profits and revaluation of state-owned enterprises on the one hand and foreign exchange gains on the other hand.

The classical golden rule concept would now reformulate to the principle of maintaining government net worth as a minimum requirement, that is government has to make sure that increases in public debt or other liabilities do not exceed the building up of public assets. A few jurisdictions have already implemented some kind of such rules in their budget laws or as documented fiscal targets²⁵. Others may follow suit.

One aspect of studying the significance of the net worth concept in fiscal rulemaking would be to define more precisely the term “maintaining net worth”. For example, it could be asked whether adjustments for inflation should be made to balance sheet items before interpreting a change in net worth. The same applies to the problem if absolute values or ratios, for example with GDP as denominator, should be the basis for interpretation. I will not address this aspects here. Instead I will concentrate on the structure and the length of government balance sheets and argue that they convey import information regarding agency-costs²⁶.

²⁵ “The principles of responsible fiscal management are ...(c) achieving and maintaining levels of Crown net worth that provide a buffer against factors that may impact adversely on the Crown's net worth in the future.” (New Zealand, Fiscal Responsibility Act, section 4 (2), 1994).
“The Government will at least maintain and seek to increase Total State Net Worth.” (Queensland Charter of Social and Fiscal Responsibility, 1999).

²⁶ Thereby I will omit the discussion of a secular trend which will become more apparent in the future, namely the dissolution of responsibility from production of public services. This trend is vaguely circumscribed by the popular term outsourcing and leads, in the last consequence, to the (continues)

Just “drawing the line”, that is using a single net worth figure to evaluate fiscal performance is not recommendable. First of all, however, it is necessary to discuss the proper definition of net worth.

3.1 *Comprehensive net worth and reported net worth*

The major net worth approaches used are *reported net worth (RNW)* and *comprehensive net worth (CNW)* (Bradbury, Brumby and Skilling 1999). The latter is the sum of discounted cash flows of all government receipts and expenditures from now to infinity (Buiters 1983). The correspondence to the intertemporal budget constraint is obvious. *RNW* is the difference of the values of assets and liabilities shown on a balance sheet. It represents at one point in time the bookkeeping value of past transactions. Generally it is not possible to bring both concepts together, for example by taking the backward-looking *RNW* as an opening balance. While some items included in *RNW* can be calculated on a discounted cash-flow basis consistent with *CNW* (for example the actuarial value of future pension payments for government employees which have to be regarded as elements of service pay), others like most fixed assets will be linked to historic cost accounting²⁷.

The advantage of the concept of *RNW* is that it is relatively easy to compile, once decisions about valuation rules have been taken. Its usefulness as a basis for decision-making is limited from a purely economic point of view, though. No rational investor would value stocks on the sole information about a firms past profits. On the other side, *CNW* is informative regarding fiscal sustainability but difficult to apply taking into account the uncertainties about the future paths of revenues and expenditures, and the problem of the appropriate choice of discount factors δ_j . For the latter, the rates at which government borrows could be used. Future developments of revenues and expenditures can be estimated with a

phenomenon of “government without administration”. It is avoiding some existing but creating at the same time new kinds of agency costs. Balance sheet analysis becomes far more complicated if total classes of assets start to vanish from the books.

²⁷ Some financial obligations resulting from past actions do not even appear on the balance sheet as they cannot be quantified. This is for example true for the financial impact of government loan guarantees.

variety of more or less sophisticated methods²⁸. The reason why *CNW* is nevertheless not appropriate in an agency-cost frame work is an inevitable commitment problem. It is easy to see that for any given value of *CNW* any promise regarding cash flows in the current election period can be fulfilled by shifting the necessary budgetary adjustments to the future. But since future governments can not be bound by today's decisions (and must not in a democracy), the corresponding value (or change in value) of *CNW* is never a credible commitment.

In the political sphere, not a present value but a period by period view is relevant, and only the change of *RNW* in a limited period of time is feasible in the sense that it can serve as a basis for contracts between the principal and political agents. From a *CNW*-perspective it is for instance obvious to define "total debt" as the sum of "explicit debt", issued bonds and direct borrowings as parts of *RNW*, and "implicit debt", the present value of unfunded claims on future government budgets. Following such a reasoning and using the graph presented in Raffelhüschen and Jägers (1999: 8), Italy would be less heavily indebted (in relation to GDP) than Germany, Spain or the UK! This is somewhat surprising since Italy has so far not been known as a fiscal model country. The Italian pension reform of 1995 could be the major reason why the ratio of implicit debt to GDP for Italy is shown to be near zero. This reform takes several years to come into full effect²⁹ showing – without any intention to ignore the merits of pension reform in general – how easy *CNW* related figures could be influenced by the political process. Fiscal sustainability analyses of that kind have doubtless their analytical value in the discussions of economic policy. If it comes to the grips with political contract-making, however, the lesson is "to take budgets as budgets" (Wildavsky 1993).

²⁸ For example, estimations of future tax receipts can start from the simple assumption of constant revenues and take the form of actual tax revenues divided by the rate of average borrowing costs as a measure for the present value of taxing authority (Huther 1998). As an alternative, more refined options pricing models could be applied (Draaisma and Gordon 1996).

²⁹ Franco and Sartor (1999: 120): "As a new law, the reform to date has produced only a limited portion of its long-term effects. The relative slowness in reaching full maturity is due to the very benign transition granted to current workers".

3.2 *The asset side of the government balance sheet*

In the public sector accounting literature the overall definition of assets will always be something like: "... resources controlled by an entity as a result of past events and from which future economic benefits or service potential are expected to flow to the entity" (IFAC 2000). In the accounting practice, once assets are identified they are valued according to appropriate rules where for each category a pragmatic compromise between relevance and reliability is found in the sense that if future economic benefits are difficult to quantify a possible fall back procedure would be to take easily accessible data, for example cost values. The final outcome of this exercise is a single figure, the total money value of assets. Starting from the approach taken in this paper, however, it is the structure of assets that determines the amount of agency-costs involved. The most important distinction in this regard is to separate cash-flow generating assets from those that do not produce cash flows. Recall the definition from Jensen (1986): A firm's free cash-flow consists of those idle funds that remain after all projects with a positive capital value have been financed. The task of designing the contractual relationship between owners and management is to prevent the latter from disbursing the funds for unnecessary administrative outlays or loss-bearing investment projects. Applied to the public sector, cash-flow generating assets are all assets which have a market value and which are not in use for producing core government services. To be classified in this category, it is not necessary that cash actually flows, say from state-owned firms to the government budget, as it is the potential for free cash-flows that matters. It can be used already at the firm level when the politicians derive political benefits from excess employment because those employees are supposed to use their vote in favour of their benefactors³⁰.

One could object to the argument above that government budgets do record interest and dividend revenues, enabling to exercise control – in their quality to cover the total of expenditures – (as good or as bad) as for any other kind of revenue. Yet in fact, governments will always find a way to understate proceeds from capital invested. If revenues above budget accrue, there should be no difficulty in finding pressing expenditure needs to satisfy instead of disbursing them to taxpayers. If, on the other hand, actual revenue falls short of plans, demand for further funding is

³⁰ See the model in Shleifer and Vishny (1998, chapter 9).

expressed. To overcome this incentive problem, it would be possible to introduce a capital charge on the value of all cash-flow generating assets. The capital charge would serve as a minimum profitability requirement and would reduce the operating surplus (like depreciation allowances). However, new problems as how to set down the rate of the charge and how to adjust for risk components would arise. In any case, it would be superior to redeem debt in order to save agency costs.

At the practical level, it is not an easy task to identify exactly (non)cash-flow generating assets. The categories of financial and non-financial wealth seem to be a likely approximation. However, it is imprecise since a lot of non-financial assets like landed property and buildings could without difficulty be integrated into state-owned enterprises. In addition, there are often public sector services inside the budget which are in principle of a commercial nature. Their capital stock could also be part of a state-owned enterprise. An apparent solution to this demarcation problem would be to differentiate between “realisable capital” and “administrative capital” (“realisierbares Vermögen” and “Verwaltungsvermögen”, Hinzmann (1993)). The problem is that one has to define what is the “core” of government services before allocating capital goods to these two types of assets. This is necessarily a moving target.

One sub-category of financial assets are governmental loans given to the private sector, including agencies and corporations controlled by the government, or other governments³¹. The treatment of these loans as financial wealth identical to equity shares and the like is not without problems. Since governments are no banks they do not intend to make money by handing out funds. On the contrary, they lose money because they lend money at interest rates below market prices due to political objectives like development aid, subsidisation of branches suffering from high costs of structural adjustment and other areas where failures in the private loan market exist, actual or alleged. Sometimes additional concessions regarding payments of principal are granted during the life of the loan contract. Increasing the amount of governmental loans leaves net worth in conventional balance sheet terms constant while it effectively

³¹ Its share in total assets is sometimes large: In the Japanese Government balance sheet (see Aida, Kazuo et al. 2000) loans amount to 40% of the total of assets.

decreases net worth³². One option to take this into account would be to book the difference between the market rate and the required rate as current expenses in an accrual fashion. Nevertheless, it would be very difficult to calculate the appropriate risk premium.

In comparing the fiscal performance of two governments keeping the value of net worth constant, the one having less cash-flow generating assets on its balance sheets imposes less agency-costs on its citizen-principal. Divesting and privatising in the sense of complete withdrawal from corporate ownership should be welfare-enhancing even if investment are purportedly held for reasons of portfolio diversification only. The definition of Maastricht debt as a gross figure loses its arbitrariness to some extent since it contains additional information not carried by net debt/ net financial wealth figures.

The second category of government assets poses far more difficult problems, namely what should be included as assets, and how should they be valued? The general criteria of generating future economic benefits or service potential to the public applies to far more categories of government spending than those usually recorded as investment outlays. Public education (human capital formation) and the judiciary system (deterrence) are nearby examples. The main problems to include such items are the exact demarcation of current and future benefits as well as the calculation of depreciation values³³. In this regard, it is also a question of crucial importance who is in charge of valuing and if he is subject to transparency and auditing regulations.

A large amount of public infrastructure assets, the most important subcategory, are complementary to private capital goods. Therefore, it would be highly misleading to offset them with equally valued financial/cash-flow generating assets "below the line". The valuation concepts applied in practice for infrastructure assets all start from some form of historic cost accounting. The purchasing price or the construction cost of an asset is adapted in time by applying some kind of depreciation schedule, and, a strongly disputed topic, by adjustments for price inflation. Only by chance are figures compiled by those methods equal to the

³² The argument extends to securities issued by government controlled entities which are part of the corporate sector.

³³ Including losses caused by citizens who move to another jurisdiction and take their publicly acquired human capital with them.

economic value of public assets. Generally, they can be assumed to be biased upwards since governments should not be supposed to be cost minimising. Hence, to thwart government claims for new debt seemingly backed by asset totals that are difficult to interpret (and to control) one should consider to establish a stern cautiousness principle that places acquisition cost as the maximum value and recognises revaluation downwards but not upwards³⁴. Furthermore, a summation of values for individual objects is problematic regarding the complementary and network characteristics of public infrastructure. What the citizen-voter essentially is contracting for with government is maintaining a certain level of service capacity that depends, through time, on changing demographics, changing preferences, and other factors. Existing capacities can be either sufficient, or too low or too high, thus making book values of infrastructure assets (and the corresponding value of government net worth) potentially misleading. If a too low capacity of road infrastructure burdens the economy with high congestion costs³⁵, targeting the performance of net worth may become rather useless.

A third category of public sector assets are the so-called cultural or heritage assets. They embody intrinsic values to society because of their significance as national/regional symbols. Examples are historic monuments, arts collections, and some natural sites. A not negligible part of this category has a market value (think of the Brandenburger Tor in Berlin sold to some rich – and eccentric – person who pulls it down and re-erects it in his private park). From an agency-cost perspective, however, such assets should be recorded on the balance sheet with symbolic values (e.g. 1,-) or off balance sheet in a presentation of “stewardship information³⁶”. This would prevent that free cash-flow is generated by selling off such assets or is (mis-)directed by purchasing new assets, for example paintings.

³⁴ The widely used method of depreciated replacement cost does not fall under this principle.

³⁵ See Sumpf (1997) for an estimation of the annual social costs of road blocks in Germany. The results are in the 100 billion Euro range.

³⁶ See Office of Management and Budget (2000) for such an approach.

3.3 *The liability side of the government balance sheet*

Given the asset side of the government balance sheet, should there be concern about the structure of the liability side? Disregarding agency costs and intergenerational conflict, one could answer “no” by pointing out to the Barro-Ricardo equivalence theorem since the division between net worth and the total value of liabilities³⁷ just influences the intertemporal profile of tax payments. That does matter, of course, if taxes are not lump-sum³⁸. Distortionary taxes should be imposed in such a way as to minimise the dead-weight loss of taxation. Constant tax rates over time are optimal under the assumption of increasing marginal excess burden of the tax rate. In the case of uncertainties about the future (economic growth, level of public spending) tax-smoothing policy calls under some circumstances for precautionary taxation (Bohn 1995), that is more net worth and less liabilities.

A counterintuitive argument suggests having *more* debt. One of the incentive mechanisms discussed by Jensen (1986) was to substitute own stocks by bonds since a greater part of free cash-flow is absorbed by interest payments. Such an idea seems irrelevant for the public sector with no titles to property. However, the analogy with corporate finance holds for the following thought experiment: Citizen-taxpayers receive a one-time tax rebate financed completely by a new bond issue. That reduces immediately government net worth by the same amount. Taxpayers balance sheets are left neutral in present value terms while bearing the welfare costs of fluctuating tax rates. If government is operating near the peak of the tax Laffer curve, a certain share of the increased interest payments must eventually be financed by decreasing other expenditure items. If this means at the same time less room for bureaucratic capture, a decrease in the costs of government agency is possible. Less budgetary flexibility is equivalent to less opportunities for misusing public funds. The two countervailing cost effects have to be balanced in order to find the optimal debt level. To promote higher indebtedness (or not reducing

³⁷ Defined as: “...present obligations of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits or service potential.”

³⁸ According to an intuitively appealing argument of Bohn (1992) they would not be consistent with a democratic society because lump-sum taxes would imply the right of the state to take away any sum at any time from anyone. This would mean dictatorship. The principle of equality demands to link taxation with some criteria abstracting from individual taxpayers, such as income, wealth or consumption.

already high debt levels) at the cost of net worth seems a strange recommendation. However, this is at the heart of the debates on the use of budget surpluses, the political struggle for the “fiscal dividend”, taking place for example in the U.S. Should public debt be reduced, thus making it easier for future governments to fund additional expenditure, or should buoyant tax revenues channelled back immediately to the citizens via single cash transfers? Indebtedness is always an intertemporal resource transfers toward the present. With Leviathan-like governments it could be a means to safeguard citizens future resources. This is only valid, of course, if intergenerational conflicts are disregarded.

Concerning the structure of liabilities, differing agency-costs can play a role if the different probabilities of default for certain kinds of debt are taken into account. While defaults of funded liabilities like government bonds and loans are normally not a policy instrument in most (civilised) countries and jurisdictions, the case is not that clear-cut for unfunded liabilities. The quantitatively most important category of unfunded liabilities are pension entitlements of public sector employees. Since they are part of the pay for services rendered they have to be recorded in an accrual accounting framework. Though the value of entitlements is determined by law, any commitment to the long-term development of pension levels is not fully credible. Therefore, agency-costs are reduced if entitlements are securitised in the form of payments in individual savings accounts or tradable securities. In this regard, it may be interesting to note that the government of the Australian state of New South Wales made an offer to public sector employees the conversion of accrued pension benefits to portable lump sums to be paid into a (state-run) funded pension scheme. To finance the conversion offer, the government borrowed significant sums, thus increasing net debt but leaving unchanged the state’s total liabilities by reducing net unfunded superannuation liabilities by an equal amount.

4. Summary and conclusions

Reforms of government accounting and financial reporting are spreading rapidly around the world. This paper is devoted to the fact that discussions about the implications for fiscal analysis and control do not keep pace with these developments. Accrual accounting and the compilation of business-like financial reports forces governments to

publish additional information that enhances transparency and thus reduces agency-costs. The degree of transparency and the potential for “creative accounting”, that is the misrepresentation of the true fiscal variables, are closely related (Milesi-Ferretti 2000). It is true that a danger of eclecticism in valuation methods (Robinson 1996) and corresponding manipulation exists but this is in itself no compelling argument against setting up government balance sheets. If, like in Germany, only fragmental pieces of information exist about what governments actually possess and owe, such exercises should be welcomed. They also would allow to address an agency problem regarding publicly owned assets that was pointed out by Tanzi and Prakash (2000). In a cash-budgeting environment assets de facto carry zero values after acquisition. Since governments often own land and buildings located in sometimes very expensive downtown areas used as schools, offices etc., enormous capital gains would show up after a accurate recording of these assets on the balance sheet. But politicians are not interested to unveil the opportunity costs of their current use. Instead, their hidden values are likely to be captured as a source of free cash flows.

However, in the field of binding fiscal rules, it is questionable whether sophisticated rules based on balance sheets can be found which comply with the criterion of remediability. Concerning the question if government should be allowed to borrow for investment in public sector capital, it was shown that this variant of the “golden rule” of government financing implies important agency-cost of overinvestment whereas the costs of underinvestment, accentuated in the literature, seem no convincing argument against a balanced budget rule that encompasses the whole of government spending. Extending the “golden rule” to the totals of government assets and liabilities, the main message is that balance sheets showing the same values of government net worth have conceivably to be assessed very differently in terms of agency costs. The availability of additional structural information is critical for interpreting net worth figures correctly. And even the basic idea of keeping net worth at least constant loses firm ground if it is taken into account that contradictory arguments about the “right” level of net worth exist. The concept of government net worth in itself remains ambiguous since no clear-cut rule as to the valuation and summation of tangible fixed assets is available. There can be no solution to this problem until it is not precisely defined what the basic and uncontested functions of the State are - whereas the typical enterprise holds no such “core”.

Do these remediability considerations imply that the status quo regarding the fiscal restrictions of the Maastricht Treaty and the Stability and Growth Pact should be accepted? If the “close to balance or in surplus”-clause could be successfully established as a kind of balanced budget requirement (with fairly small adaptations for business cycle effects) this would be a means to keep governments from pursuing irresponsible fiscal policies. On the other hand, it should be reminded that, from an agency-cost perspective, there are also severe shortcomings of these European rules, in particular regarding transparency and accountability. They are defined in national accounts categories, in view of the diversity of government accounting systems across member states an acceptable fall back procedure. But since national accountants have to rely on government accounts and only can make – on a broad and highly aggregated level – adjustments and reclassifications given that database (Lüder 2000) harmonisation remains incomplete, and its factual extent is unknown. The transparency virtues of accrual accounting cannot become effective to their full intensity because the primary source of national statistical offices still is cash based accounting. National accounts methodology was set up for other reasons than to control governments’ use of taxpayers funds as can be seen most visibly in the way the government sector is delineated. Whether an institutional unit belongs to the government or to the private sector is determined in ESA 1995 by reference to fuzzy criteria like producing primarily for the market, keeping separate accounts and charging economically significant prices for its outputs. The essential features of ownership and control of the entity, however, are not a decisive factor. Since, in consequence, a large and manipulable part of government activity is outside the official fiscal indicators the power of incentive or control devices building on them is weakened considerably. Further agency-costs arise due to making Eurostat, a government agency belonging to the European Commission services, the key player for interpretation of the Maastricht deficit definition. Some events in the past indicate that political influence cannot be ruled out here.

Fully harmonised methods of fiscal reporting developed and surveyed by independent bodies would enhance the power of control for citizen-principals vis-à-vis their government agents since the fiscal performance of other jurisdictions then can be used, under the threat of the exit option, to evaluate their own politicians records’. The working of this control device is hampered if, even in one country, diverse solutions to related problems are chosen: Reform models at the local level in Germany

so far take separate asset valuation approaches, and capital budgets are looked at very differently at the state and federal level in the United States (President's Commission to Study Capital Budgeting 1999, McNamee et al. 1999). Therefore, it is noteworthy that the Public Sector Committee of the International Federation of Accountants (IFAC) is presenting drafts of standards of accounting for the public sector³⁹. Though they do not actually tie governments, they could serve as the nucleus for future official harmonisation efforts.

³⁹ See the respective documents at <http://www.ifac.org>.

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