

Sustainable Budget Policy: Concepts and Approaches

by
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Concern about fiscal sustainability has been fueled by the projected ageing of populations in OECD countries and the likely surge in government spending on pensions and health care. For the most part, it has not been driven by worries about the current fiscal position of countries. Multiple dimensions of sustainability are discussed: solvency, growth, stability, fairness. Modes of sustainability analysis are related to existing budget practices, including baseline projections, balance sheet analysis, fiscal gap analysis, and generational accounting. The article concludes with a discussion of how to build sustainability analysis into the budget process and how to manage the sustainability process.

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It was not long ago that fiscal sustainability was an issue only for underdeveloped and emerging market economies that have fragile capital markets, rising debt and an expanding public sector, and are vulnerable to cyclical disturbances or financial contagion. Recently, however, concern about fiscal sustainability has spread to advanced countries, some of which have established ongoing processes for assessing their capacity to maintain their fiscal position for an extended period. Australia, New Zealand and the United Kingdom review fiscal sustainability as part of their new fiscal responsibility regimes introduced during the past decade. Member countries of the European Union comment on sustainability in their medium-term budget frameworks submitted to the European Commission (EC) pursuant to the Stability and Growth Pact, and the EC reviews the long-term outlook in its annual report on fiscal policy. The United States annually reviews the long-term sustainability of social security and Medicare, the two largest claimants on future budgets.

Concern about sustainability has been fueled by the projected ageing of populations in OECD countries and the likely surge in government spending on pensions and health care. For the most part, it has not been driven by worries about the current fiscal position of countries. In fact, countries with sound positions (such as Australia and New Zealand) have been in the forefront of this movement. Interest in sustainability has been stirred by innovations in accounting and economic analysis such as accrual accounting and budgeting, the application of present value analysis to government budgets, intergenerational accounting, and fiscal gap analysis. None of these is standard budget practice, but some are likely to be built into the routines of budgeting in the future. It is also likely that countries will experiment with different techniques and that some will build sustainability analysis into the annual budget process, while others will conduct such studies as a free-standing exercise.

In migrating from underdeveloped to highly developed countries, fiscal sustainability has shifted in focus from the near term to the distant future. In less developed countries, the immediate concern is whether the government will be able to service its debt if capital flees, the currency depreciates, and interest rates surge. This is the principal focus of sustainability work carried out by the International Monetary Fund. Its "assessments have two main dimensions: indicators of public debt and deficits, and medium-term fiscal

projections” (IMF, 2002, p. 12). In OECD countries, the focus is on the long term, typically 30-50 years ahead. Even countries that have had persistent budget deficits and elevated debt loads do not sense impending fiscal crisis; in fact, they have little difficulty financing current budget shortfalls. But many OECD countries are concerned that although their current fiscal posture is sound or manageable, it might not be a generation or two from now as future governments are encumbered with the costs of past policies and commitments. Inherently, fiscal sustainability in the OECD area has a long-term perspective that aims to prepare for the future by sensitising governments to the need for prudent action to sustain economic wellbeing for future generations.

Fiscal sustainability is more than projecting the future; it is about the urgency of policy changes as well as the need for new budget tools to assess governments’ fiscal position because conventional instruments are not up to the task. A medium-term expenditure framework (MTEF) and fiscal rules, two of the most prominent contemporary innovations, extend the timeframe of budgeting 3-5 years ahead, but they are not attuned to long-term issues. An MTEF does not look far enough ahead and, coupled with hard constraints, may spur some stressed governments to engage in budgetary legerdemain which improves the medium-term outlook at the expense of the country’s long-term fiscal health. This is not mere speculation, for a number of EU countries have used one-off savings to meet requirements of the Stability and Growth Pact (European Commission, 2004).

Although their time horizon is too short for sustainability work, MTEF and fiscal rules introduce techniques, such as baseline projections, which can be extended to analyse a country’s future fiscal position. Fiscal rules also have relevance because they sensitise governments to the downstream implications of budget policy. But the fact that governments and academics are working to devise new accounting and reporting tools to gauge sustainability indicates that existing techniques do not suffice.

This paper is based on the expectation that sustainability will be an essential element of future budget work. Section 1 makes the case that sustainability has multiple dimensions arising out of the diverse perspectives of those urging attention to the issue. Some of the main approaches to analysing sustainability are described in Section 2, which discusses their application to the budget process. The concluding section focuses on means of feeding sustainability results into the formulation of budget policy.

1. The multiple dimensions of sustainability

The shift to a long-term horizon has expanded the ways governments and international organisations think about sustainability. The term has

retained its original meaning as a measure of the solvency of government, but it has acquired several dimensions that pertain to governments that have no difficulty meeting current obligations. Contemporary sustainability analysis focuses on fiscal conditions that may retard economic growth, cause tax burdens to rise, or transfer significant costs to future taxpayers. The added dimensions reflect concern that governments have accumulated long-term liabilities that do not appear in current budgets or balance sheets but may disadvantage future generations when they come due. The expanded concept of sustainability is grounded on the norm that responsible governments should not do harm that will appear decades after the relevant policies were adopted.

Four dimensions of sustainability may be delineated. Although they are separated here for analysis, in practice they tend to appear in tandem:

- **Solvency** – the ability of government to pay its financial obligations.
- **Growth** – fiscal policy that sustains economic growth.
- **Stability** – the capacity of government to meet future obligations with existing tax burdens.
- **Fairness** – the capacity of government to pay current obligations without shifting the cost to future generations.

The four dimensions overlap, but it is useful to draw their implications by examining each separately.

1.1. Solvency

Solvency is usually thought to be a problem in some underdeveloped or emerging market countries, particularly those that have boosted public spending, taken on additional debt, and have an inadequate tax base. When misfortune arrives, often brought by a cyclical downturn or financial contagion, capital flees, currency plummets in value, and the government must rollover debt at very high interest rates while borrowing more to stay afloat. These are countries to which the IMF rushes with emergency assistance, in exchange for which it demands that they restore solvency by correcting unsustainable fiscal imbalances. A typical IMF demand is that the government run a primary surplus in order to finance its debt.

Solvency can be an issue in any country that takes on excessive debt. Although they may not face capital flight in the foreseeable future, affluent countries are sometimes tempted to debt finance current obligations, whether in response to political pressure or out of confidence that they can afford to do so. Some observers believe that this is the current fiscal predicament of the United States, and that its current course is unsustainable. In budget

projections that run out to 2050, the Congressional Budget Office concluded that under certain plausible budget scenarios:

...the growth of debt would accelerate as the government attempted to finance its interest payments by issuing more debt – leading to a vicious circle in which ever-larger amounts of debt were issued to pay ever-higher interest charges. Eventually, the costs of servicing the debt would outstrip the government’s ability to pay for them, thus becoming unsustainable.

(CBO, 2003, p. 14)

The CBO warning relates to the long-term outlook. The 50 years covered by its projections are a long way off, but the CBO argues that it is appropriate to take action now to abate long-term imbalances. It provides specific examples of how timely action can avert projected insolvency.

Solvency is typically measured in business in reference to the firm’s net worth. Applying this method to government is difficult because few have comprehensive balance sheets that cover all liabilities and assets. Moreover, net worth is a misleading measure in government because it does not include the power to generate additional revenue by raising taxes. Nor does it include the value of future pension liabilities. At best, the balance sheets now produced in national governments provide an incomplete but nevertheless useful statement of financial condition.

1.2. Growth

Sustained growth is one of the twin objectives of the European Union’s Stability and Growth Pact (SGP) which commits euro zone countries to budget imbalances below 3% of GDP and gross debt below 60%. The case for these limits rests on the argument that growth will not be sustainable if deficits and debt breach these parameters. Thus, the broadened concept of fiscal sustainability encompasses the notion that governments should manage their finances prudently so as to assure future growth. In line with this reasoning, Britain’s long-term fiscal objective is to ensure “that the public finances are sustainable, contributing to a stable environment that promotes economic growth” (H.M. Treasury, 2004, p. 4). In this light, fiscal policy is adjudged to be unsustainable if it would cause potential output to be lower at some future time than it would otherwise be. The logic of this argument runs as follows: the best way for government to meet future obligations, which certainly will be greater than today’s, is by having a robust economy which supplies government additional revenue from the dividends of economic growth. If, however, fiscal imbalances diminish future growth, the dividends will be smaller or vanish altogether and government will be hard pressed to cover its obligations.

This reasoning led the European Commission in its 2004 review of public finance in EMU countries to argue that “the risk of unsustainable public finances increases considerably if the Member States do not achieve the SGP goal of budget position of ‘close to balance or in surplus’”. The report concluded that this position “is in the economic self-interest of Member States both individually and collectively ... it creates room for budgetary manoeuvre to either cut taxes or to increase growth-enhancing expenditures on items such as investment and R&D” (European Commission, 2004, p. 59).

Sustaining growth by running balanced budgets represents a sharp break with postwar economic doctrine which typically regarded deficits as appropriate in bad times and manageable in good times. This reversal in economic reasoning has been due to several transformations: from viewing the budget as an instrument of short-term cyclical adjustment to a means of undergirding structural soundness over an extended period; from looking at the budget as a policy statement for a year (or few years) immediately ahead to treating it as a strategic plan of future government financial capacity; and from formulating the budget as an instrument of government expansion to constraining it to be a stabiliser of government size. These shifts correspond to changes in contemporary political sentiment. Confidence in the capacity of government to sustain growth by taxing and spending more has waned. Moreover, recognition that the bulge in government spending will be in the form of transfer payments that subsidise consumption has weakened analytical support for the expansionary policies that once were popular.

1.3. Stability (stable taxes)

Maintaining the tax burden at or near current levels has become a dominant objective of fiscal policy in many OECD countries. This objective is highlighted in Australia’s *Intergenerational Report* which views “a balanced budget over the medium term, given a reasonable degree of stability in the overall tax burden” as “one of the key requirements for sustainable financial arrangements” (Commonwealth of Australia, 2002, p. 2). In running 40-year projections, the report assumes that Commonwealth revenues will remain a constant proportion of GDP. A key aim of the report is to assess the risk that tax burdens will rise in the future to accommodate spending pressures. It concludes that the Commonwealth’s fiscal position may be unsustainable because the projected trajectory of spending would compel higher taxes (or a larger debt) in the future.

The underlying premise of this sustainability argument is that tax burdens are already very high and that governments should adopt prudent fiscal positions that obviate pressure for future increases. In this version, the objective is to sustain tax burdens at their current level or lower. This dimension of sustainability is congruent with contemporary sentiment in

most OECD countries, and is reflected in the leveling off of tax burdens after decades of steep increases. Of course, sustainability recognises that taxes cannot be constrained if downstream spending demands are not. The notion that spending pressures must be abated to lower the probability of higher taxes in the future is as prevalent in countries with relatively low tax burdens as in high-tax countries. Even countries that have current budget deficits have joined the tax-cutting parade. At times, such behaviour would have been viewed as undermining sustainability; nowadays, it is often seen as diminishing the risk that taxes will be higher in the future.

During much of the 20th century, the tax burden and economic output expanded throughout the OECD area. In many (certainly not all) countries, it came to be accepted that by producing an educated workforce, efficient transport, income security, and other social goods, expansionary government establishes favourable conditions for economic growth. Taxes were the price paid by households and firms for purchasing government-supplied goods that elevated living standards. Governments (and most voters) were not troubled by the rise in taxes because disposable incomes were also rising and government was supplying more benefits. Sustainability strongly indicates that times have changed, partly because tax burdens are hovering around 50% in some countries, partly because of diminished trust and confidence in government performance. It matters little that popular images of government may be wrong; it does matter that voters look to government for lower taxes.

Here is where sustainability enters the picture, for spending trends embedded in government commitments and political expectations point to sizeable tax hikes in the future. Arguably, the surest way to maintain solvent government in the decades ahead is to generate sufficient additional tax revenue to cover the looming rise in public spending. The sustainability norm seeks to deter this option by defining tax stability as a core fiscal objective.

1.4. Fairness

The final version views fiscal policy as sustainable when tax burdens and expenditure benefits are equitable across generations. In this perspective, it is not fair to provide benefits to one age cohort that will have to be paid for by taxes levied on younger cohorts. This concept of sustainability is embedded in Australia's *Intergenerational Report* which asserts: "Fiscal sustainability ... ensures future generations of taxpayers do not face an unmanageable bill for government services provided to the current generation." Further, a sustainable fiscal stance "promotes fairness in distributing resources between generations of Australians" (Commonwealth of Australia, 2002, p. 2). Britain's *Long-Term Public Finance Report* declares a primary objective of fiscal policy to ensure "that spending and taxation impact fairly both within and between generations" (H.M. Treasury, 2004, p. 4).

Operationalising fairness may be more difficult than measuring budget balances, for as Peter Heller has observed, “there is no single definition or universally accepted measure of fairness ... Should future generations be expected to bear a higher tax burden than current generations would be willing to accept for themselves, because they will be richer? What obligations should future generations have toward current working generations?” (Heller, 2003, p. 130). Budget makers have enormous difficulty assessing fairness among current beneficiaries and taxpayers; it is even more difficult to reason through equity issues across generations, from those who are newly born to those who are nearing the end of long lives. Not only do layers of assumptions have to be made about distant tax burdens and expenditures, but normative questions demand attention. Would a fairness norm rule out any difference across generations or only those (in the words of Australia’s report) that are truly “unmanageable”? Perhaps it is the sharp divide across generations that gives rise to fairness concerns: today’s citizens are (by a wide margin) net gainers; tomorrow’s generations are projected (also by a wide margin) to be net losers. However, there is another way of defining this issue. Government policies that distribute costs and benefits may be regarded as a social contract across generations. In the same way that today’s citizens pay higher taxes and enjoy elevated material wellbeing compared to their forbears, future taxpayers should be expected to pay for and enjoy the greater affluence and enriched public services bequeathed to them. The counterargument is that the social contract has been broken by the prospective huge shift of costs and benefits across generations. Today’s older citizens have negative effective tax rates (taxes minus benefits) in excess of 25%; tomorrow’s will have effective positive net tax rates in excess of 50%. This breaches any social contract that may have been accepted in the past.

Here is where sustainability joins up with fairness. Grossly unfair distributions are not sustainable in either political or economic terms – politically, because future payers are likely to rebel against confiscatory tax rates; economically, because the wellbeing of the country will be retarded by the overriding need for tax rates that are strong disincentives for work, saving, and investment.

The four definitions of sustainability focus as much on the tax burden as on the public debt, though (of course) elevated debt can be expected to exert upward pressure on tax rates. In contrast to developing and emerging market countries where sustainability is a concern that arises out of inadequate tax mobilisation, in industrial countries the problem is that tax rates are already very high. But in all types of countries, sustainability analyses project that the ratio of tax revenue to GDP will have to rise to finance commitments that will come due in the future.

2. Modes of sustainability analysis

Because it is a new area of analysis and because making assumptions about the future can be done with a variety of techniques, there is no standard way of projecting taxes and burdens 30-50 years ahead. One approach is to examine the future from the vantage point of the country as a whole; another is to look at it from the position of an individual taxpayer who will receive a flow of costs and benefits from government; still another is to consider a similarly situated age cohort. Some techniques build on standard budget methods to project the future; others are grounded in accounting rules and analyse the future by means of a balance sheet. Some take a whole-of-government perspective; others focus on major programmes (such as social security) that have long-term implications. All require heroic assumptions about economic and social trends, such as rates of growth, price changes, and life expectancy. Rather than discuss methodological differences, this section relates various techniques to existing budget practices. If sustainability becomes an ongoing issue, it is highly likely that budget practices will evolve to incorporate an elongated timeframe into analyses of revenue and spending proposals.

2.1. Baseline projections

Governments that have moved to an MTEF (or have otherwise lengthened their time horizon) typically use baseline projections to connect current budget policy to medium-term fiscal outcomes. Sustainability analysis often uses similar techniques, but extends the timeframe 30 or more years ahead. Baseline projections begin with the government's current budget position (including policy changes that have already been approved but will not take effect until some future date). In constructing baseline projections, the overriding assumption is that existing revenue and spending will be continued as far ahead into the future as projections extend, without any substantive change. Of course, these projections are based on critical assumptions about GDP, wage and productivity trends, interest rates, and much more. In constructing a baseline, government has to reckon with revenue or spending provisions that are time-limited – that is, under current law, they will not remain in effect for the entire period covered by the baseline. In many such cases, there is strong probability that expiring provisions will be extended. Therefore, dropping time-limited items from the baseline may provide a misleading picture of future budget conditions. New Zealand's practice is to systematically report on such provisions, thereby allowing citizens and others to exercise judgment on whether it is realistic to assume that they will not be continued. This provides a fuller view of fiscal trends, but it is not the practice in other countries that rely on baselines.

Baseline projections are inherently unrealistic because it is highly unlikely that budget policy will be frozen as the number of pensioners receiving public money escalates. It is also unrealistic because (in most governments) the baseline projection does not assume significant changes in economic performance as a consequence of tax and spending policies.¹ Despite these limitations, baselines serve two valuable purposes in budgeting that can be applied to sustainability projections. First, they provide insights into future budget conditions if government stays on its fiscal course. This is especially useful in contemplating a distant future in which demographic and other conditions may be quite different from what they are today. Second, baselines provide a basis for estimating the impact of proposed or adopted policy changes on future budgets. In these projections, any variance between the baseline projection and revised estimates is defined as the future budget impact of policy change. In this way, baseline projections enable policy makers to assess the impact of changes in revenue or spending policies on the government's fiscal position.

Although baseline projections usually provide point estimates, in anticipating the future it would be preferable to present a range of plausible fiscal outcomes. Within the range, estimates would be differentiated by the assumptions on which they are grounded. It also would be feasible to base projections on alternative scenarios of key variables such as life expectancy, health costs, economic growth and interest rates. A surfeit of scenarios might drown the projections in confusion, but it would be sensible to construct 3-5 scenarios. Finally, it would be prudent to "stress test" long-term baseline projections to assess how they might be affected by significant changes in underlying assumptions.

In sum, while long-term forecasting is not yet common in budgeting, it almost certainly will become standard practice in many countries in the years ahead. Because baseline projections can be lengthened from the medium-term to the distant future, they are likely to become the most frequently applied technique of government in assessing long-term sustainability. However, budgets will automatically have as dominant a position in exploring sustainability as they have had in estimating annual or medium budget conditions. Economists and other policy analysts will vie to construct novel means of relating current budget postures to long-term sustainability.

2.2. Balance sheet analysis

During the past decade, some analysts have viewed the balance sheet as a fuller and more reliable statement of financial condition than the budget. In contrast to budgets which include only those flows that are within its ambit, the balance sheet includes all (explicit) assets and liabilities, regardless of their budget status. Moreover, it includes all liabilities, not only those that are

sovereign debt. The structure and content of the balance sheet are regulated by national or international accounting norms and are independently audited. Although national budgets usually are on a cash basis, the balance sheet accrues income and expense, thereby enabling government to recognise certain downstream liabilities long before they become due. Properly constructed, a balance sheet would provide a comprehensive account of the government's net worth and of future payments likely to arise out of existing liabilities. For these reasons, various scholars have urged that the government's fiscal position be assessed in reference to the balance sheet rather than the budget (Bléjer and Cheasty, 1991).

But the balance sheet has inherent limitations that greatly diminish its utility as a measure of long-term sustainability. One problem is that the balance sheet recognises only explicit liabilities, but many obligations of government are embedded in expectations about how it will behave in the future; another is that the balance sheet recognises liabilities arising out of past actions, not future obligations arising out of current policy. In assessing long-term sustainability, however, implicit commitments and future obligations weigh far more heavily than those that are explicit or have already been incurred. In fact, no government records future pension obligations on its balance sheet, though some append notes in which various matters that do not meet recognition standards are discussed. This is an area where accounting norms are likely to evolve in the future, but it would be imprudent for the balance sheet to show implicit liabilities or prospective payments for liabilities that have not yet been incurred. Doing so would make implicit obligations explicit, worsening the government's financial predicament and loading it with future payments that it might otherwise avoid.

The balance sheet is a snapshot of financial condition at a point in time; it is not a projection of what might occur in the future. It does not include revenue or obligations that have not yet accrued, nor does it differentiate between liabilities that may come due within the next year and those payable in the distant future. It does not assign a present value to the taxing capacity of government or to future revenue flows from the existing tax structure. In fact, pursuant to established accounting rules, the balance sheet completely ignores the capacity to generate revenue in the future. It does, however, account for certain unfunded liabilities, that is, for incurred liabilities that are not financed by accrued revenue. Some finance experts have argued that the balance sheet presents a misleading picture of future financial condition and that net worth is not a useful measure of a government's solvency; others have noted that the balance sheet applies identical recognition rules to liabilities and assets, that net worth is a relevant measure of government's capacity to finance incurred liabilities, and that the balance sheet is not designed to be a prognosis of future financial condition. What the balance sheet can do is to

provide a starting point (other than the baseline) for projecting future sustainability, but doing so requires consideration of matters that are not recorded on the balance sheet.

The balance sheet and related financial statements are likely to have greater prominence in assessing current and prospective fiscal conditions. One reason is the expansion of accounting and reporting standards to cover matters that were not previously recorded; another is the prospect of linking (or integrating) financial statements and the budget. At present, few national governments pay attention to the financial statements they are required to prepare; they see these statements as a technical chore that has little to do with the decisions they make or the financial issues they confront. This is likely to change as accounting standards are elaborated and monitored by national and international organisations. Recent developments in the United Kingdom may be a harbinger of a broader scope for these statements. The British government has announced that beginning with the 2006/07 financial year, it will publish whole-of-government accounts (covering national and local governments and public corporations) based on generally accepted accounting principles. In addition to accounting for incurred obligations, these new accounts will provision for certain future liabilities and will contain notes on contingent liabilities. This approach expands the balance sheet to include or provide information on various liabilities that have not yet accrued. Britain's approach is not likely to be an isolated move, for the International Public Sector Accounting Standards Board and other authorities are devising new rules that will expand the information that must be reported. As accounting practices are expanded, leading-edge governments will apply the same standards to budgets and will conform or reconcile them to financial statements. The integration of budgets and financial statements will unfold in stages, probably over an extended period, but it will provide a fuller basis for assessing fiscal sustainability.

2.3. Fiscal gap analysis

Fiscal sustainability is a problem when there is a gap between a targeted debt level and the debt that would ensue if tax and spending policies were continued without change. In measuring this gap, the government (or analysts) selects a target year as well as a target for the debt/GDP ratio. In other words, gap analysis focuses on a fixed point in time, not on a stream of years. This method enables government to calculate the primary balances it will have to run to assure that the projected deficit does not exceed the targeted level. A fiscal gap of zero would indicate that current fiscal policy is sustainable; that is, the debt target can be met without increasing the tax burden or cutting future expenditures. A fiscal gap above zero would indicate

that the projected debt exceeds the target and that the government will have to boost revenue or curtail spending to sustain its fiscal objective.

Fiscal gap measures can be developed for a number of target years (for example, 2030, 2040, and 2050) as well as for a range of debt burdens (40% of GDP, 50%, 60%). By adjusting the debt target and year, government can construct alternative scenarios and policy paths for the future. Thus, in contrast to baseline projections which often highlight the unsustainability of fiscal trends, gap analysis emphasises the policy response required to maintain (or restore) sustainability. Projections focus on the fiscal problems that lie ahead; fiscal gap studies indicate the scale of change in revenue and spending policy needed to stabilise public finance. Of course, gap analysis itself is grounded on long-term projections and is therefore sensitive to the timeframe and underlying assumptions.

One variant of fiscal gap analysis, generally referred to as the intertemporal budget constraint (IBC), calculates the primary balance (the surplus or deficit exclusive of interest payment) required to stabilise (eliminate, in some versions) the debt burden. This is done by discounting to present value all projected future revenue and spending flows plus the current debt burden. An intertemporal budget gap exists when the present discounted value of projected primary balances does not cover the current debt burden. This method extends gap analysis in several ways: it calculates the prospective gap for an indefinite period rather than for a target year; it recognises that the present value of fiscal gaps depends on the timing of future financial flows; and it establishes a fiscal constraint – the debt burden – to guide policy. But like all long-term projections, the IBC is sensitive to the starting year of the projection and the discount rate.

2.4. Generational accounting

The approaches discussed thus far define sustainability in terms of the aggregate fiscal position of government. They do not focus on the fairness of fiscal policy across generations, that is, on the benefits that each age cohort will receive (mostly in transfer payments) and the taxes it will pay. Age cohorts may be defined by year of birth or may be grouped into broader categories such as five-year intervals or decades. Net transfers (taxes paid minus transfers received) are calculated for each cohort. Generational balance (or fairness) exists when future generations have the same net transfers as current generations. Country studies typically show that while current generations have negative tax rates (they receive more from government than they pay) future generations face extremely high tax rates (in some cases, confiscatory).

Generational accounting is a controversial instrument (OECD, 1997). Its advocates propose to replace the traditional method of accounting for the

government's revenues and expenditures, and to thereby shift the accounting basis from the present stock of assets and liabilities to long-term flows to and from citizens. Generational accounting is a relatively new technique and is still undergoing development. Its key value may well lie in bringing together disparate information on the future implications of public finances in a single number that is comprehensible by the public at large. It can also be a useful tool in assessing changes in tax or expenditure policy which affect the distribution of costs and benefits across generations. But the apparent simplicity of generational accounts masks the many assumptions underlying it, including the assignment of revenues and expenditures to specific generations. It can be reasonably concluded that rather than replacing traditional measures of government revenues and expenditures, generational accounting will provide useful supplementary information along with a variety of other methods that shed light on long-term financial trends.

3. Budgeting for sustainable public finance

Fiscal sustainability is (or should be) a vital issue for all national governments in the OECD area because spending pressures will escalate as populations age and as prior commitments or expectations for income transfers and health services come due. In some OECD countries, demands on the budget will not peak for another 30-50 years; in others, they will mature much earlier. Almost all face a fiscal future in which a larger share of the budget is allocated to age-sensitive programmes. Many, possibly most, will trim commitments/expectations in order to avoid significantly higher debt or tax burdens. It may be politically expedient to defer action until problems are imminent, but it would not be fiscally prudent to do so.

Some countries (such as Australia, Sweden and the United Kingdom) have acted decisively to ameliorate future budget pressures by restructuring their pension systems or pre-funding future payments; most have made no adjustments or only marginal ones that will not significantly ease demands on future budgets. A few (such as New Zealand) have moved to accommodate future fiscal pressures by reducing the current debt burden. Norway has locked away much of the revenue from oil and gas exploration to assure that these monies are available to future generations. Setting up reserves is not a viable option, however, for countries struggling with current budget imbalances. Nor is it feasible for countries that have annual budgets or medium-term frameworks to extend the time boundaries of the budget process to the next 30-50 years. Many countries are still developing techniques to assess the impact of current revenue and spending decisions on the next 3-5 years; they do not yet have the capability to budget for a much longer horizon.

Yet the distant future cannot be ignored, for it will creep up on fiscally-stressed governments one year at a time. As far off as it may be, the future can be foreseen, not with perfect certainty but with a sense of the magnitude of the trends that await coming generations. By modelling future trends and calculating the present value of future revenue flows and spending demands, governments can sensitise themselves and voters to the fiscal path that lies ahead. Some may be spurred to revise tax or spending policies on the basis of the new information, while others may lack sufficient political strength or will to change course. All would have a fuller picture of how future fiscal prospects might be affected by current budget actions. Many will become more vigilant in considering options that would worsen future budget conditions.

Significantly, countries that have systematically examined the long-term fiscal outlook tend to be ones that have taken the strongest measures to assure sustainability by restructuring pension systems or setting aside funds for future needs. In fact, efforts to ease long-term budget pressures have preceded the publication of long-term sustainability reports. Perhaps governments that have already acted to reduce long-term fiscal pressures are more inclined to be transparent about their future so as to deflect political pressure to reverse their reforms. But all countries can benefit from boldly facing up to their future budget predicament.

3.1. Building sustainability analysis into the budget process

One option for facing the future would be to formally include long-term projections in the annual budget or medium-term framework. These projections would be updated each year the same way that medium-term estimates are rolled forward. The projections would be baselines; they would assume that current (or approved) revenue and spending policies will be continued and that no significant changes will be made. The budget would set out the key social and economic assumptions that underlie the long-term projections, including the estimated impact of fiscal trends on national output, prices, and interest rates.

Although it may be feasible to attach long-term baselines to the budget, it would not be prudent to do so. One should distinguish between a budget, which is inherently a plan for one or more financial years, and a projection, which is an assumption about how the future might unfold. The budget presents the government's revenue and spending proposals, including policy changes; baseline projections assume that existing policies will not be changed. The budget recommends a specific amount for each revenue or spending item voted by the legislature; the projections often provide a range of estimates or alternative scenarios. The projections will be revised frequently before the target year arrives as policies change, new methodologies are used and fresh information or insights impel changes in

basic assumptions. Some revisions will be exceedingly large, opening the projections to misinterpretation when the distant outlook improves or deteriorates. If sustainability projections were published in the core budget, they might be mistaken as government recommendations, rather than as forecasts.

Although these projections should not be integrated into the budget, neither should they be entirely separate from it. The risk that long-term projections will be ignored is no less a problem than the risk that they will be misused. The best course would be to report on the long-term prospect in a separate document, but to summarise key findings in a supporting schedule that is included in the budget. This is the tactic used by the United Kingdom. Australia publishes an intergenerational report every five years as one of a series of papers that accompanies the annual budget. No country has established a long-term budget framework comparable to the medium-term frameworks that are now in vogue. While a medium-term framework constrains the budget actions that government takes in the light of their impacts on review and spending levels for each of the next 3-5 years, the long-term projections have not yet been hardened into budget constraints.

It is highly probable that some governments will move to regulate the long-term budget impacts of current decisions. The budget resolution adopted by the United States Congress in 2005 contains a new provision (effective only in the Senate) that bars consideration of any measure that would cause mandatory spending to increase by more than \$5 billion in any of the four ten-year periods between 2016 and 2055. This provision may be waived by supermajority vote, and does not pertain to the House of Representatives. Nevertheless, it indicates the direction that budget rules might take as governments strive to constrain politicians from shifting costs to future generations.

Expansion of the time horizon will take different paths, but governments moving in this direction are likely to take (or consider) the following steps. First, they will develop baseline projections of future revenues and expenditures under current law. Without these baselines, it will be difficult to gauge the impact of current decisions on future budgets. Second, governments will develop capacities to estimate the changes that will occur in future revenues or spending as a consequence of policy change. These estimates will be made at the time the policy change is considered or adopted. They often will be wide of the mark, but they will sensitise governments to the reality that today's actions alter future budget conditions. Third, the methods for estimating these impacts will vary among governments. Some will estimate the present value of changes in future revenues or expenditures; others will estimate these impacts in current or constant amounts, and some will calculate the changes as a proportion of GDP. Fourth, some governments

will establish rules that restrict the government's authority to take actions that would increase future deficits (or debt) or reduce projected surpluses.

The procedures outlined here would regulate policy changes that affect future budgets. They are generally similar to those used by governments that have medium-term expenditure frameworks, but rather than working with a 3-5 year horizon, they have a 30-50 year perspective. There is no significant methodological difference between a medium-term framework and a distant one, but it must be recognised that the further ahead one looks into the future, the shakier the assumptions are. The problem is not only that long-term estimates are unreliable and will likely prove to be wrong; there is a risk that opportunistic politicians will manipulate the process in ways that would adversely affect future budget conditions. For example, suppose a government were to adopt a "deficit neutral" rule that bars any revenue or spending change that would increase future deficits. It would be possible for a government to "pay for" spending increases in one programme by proposing offsetting cuts in other programmes. The trade-off will not be an equal exchange, however, if the savings were canceled (or trimmed) before they took effect.

Regulating policy changes in reference to baseline projections would not deal with imbalances that are already embedded in the budget. This approach might deter governments from making matters worse; it will not, however, restore sustainability in countries where governments are on a fiscal course that would compel significant future increases in the tax or debt burden. It would be appropriate, therefore, for such governments to introduce policy changes that ease future budget pressures. It is not within the scope of this paper to recommend substantive changes in tax or spending policy, but a generalisation can be offered that pertains to a broad swath of national policy. During the past half century, national governments in industrial countries have become the holders of risk for society. They have taken on a broad array of direct and contingent liabilities that typically come due decades after critical policy decisions were made. Most of these pertain to income support in the form of pensions, health care, disability insurance, unemployment benefits, and other transfers. The countries which have a more favourable long-term outlook tend to be those that have shifted some of the risks back to households. Doing so is, of course, highly controversial and may have some adverse political or social side-effects. But no matter what means they employ to measure sustainability, governments will not be able to sustain their fiscal course if they continue to be the holders for all major financial risks in society.

It behooves national governments to take an inventory of the risks they are holding and to report on them in supplemental notes appended to annual financial statements. Some direct, certain liabilities should be recognised on the balance sheet, but those that are contingent, implicit, or remote should

not. Governments should also explore arrangements for contingent liabilities that reduce moral hazard and their exposure to future adverse events.

3.2. Managing the sustainability process

As envisioned in this paper, governments should consider four complementary approaches for bolstering sustainability. One would be to construct long-term fiscal scenarios using cutting-edge socio/econometric techniques such as generational accounting and present-value accounting. Second, governments should extend baseline projections beyond the medium term using methods that have been applied in medium-term frameworks. Third, governments should estimate the impact of current policy changes on the long-term fiscal outlook. Finally, governments should reconfigure fiscal risks, so that a greater portion is shared by households and current generations.

Some have suggested that sustainability work requires a greater degree of independence than conventional budget tasks and should therefore be conducted outside government. While government should not have an exclusive claim in assessing future fiscal conditions, it should have a prominent role. All four responsibilities outlined in the preceding paragraph should be assigned to government. In countries that assign the ministry of finance a broad swath of fiscal and economic responsibilities, it would be the appropriate institution to lead sustainability work. In those that have separate budget and economic management institutions, it would be appropriate for both to co-operate in carrying out these responsibilities. Because of the specialised skills and experience requisite for constructing baselines, it would be unwise to exclude the budget office from this work. When government reports on sustainability, its findings are likely to be regarded as more authoritative than those produced by outside analysts. The attention that sustainability reports have earned in Australia, New Zealand, the United Kingdom and a few other countries is a strong indicator of the advantage of conducting this work in-house. Moreover, when government takes responsibility for the findings, there is a greater probability that it will act to ameliorate downstream problems.

Although long-term sustainability does not normally vary significantly from one year to the next, there is considerable gain in routinising the process by reporting each year. The annuality of these reports fosters an expectation that government will take the problem seriously and that its findings will be fed into the budget and other decisions. The *OECD Best Practices for Budget Transparency* (OECD, 2002) call for a report assessing the long-term sustainability of current budget policies to be issued every five years, or when major changes are made in revenue or spending programmes. The OECD stresses that all key assumptions underlying the projections contained in the

report should be made explicit and a range of plausible scenarios presented. Reporting at five-year intervals would be a considerable gain for governments that do not presently produce any long-term forecast, but as sustainability becomes more embedded in budget work, best practice may be to shorten the interval and to report annually or every other year.

The manner in which key findings are presented will strongly influence the consideration they receive. Sustainability analysis is complex, open to a variety of methodological approaches, and often produces a range of estimates and an array of scenarios. For the results to filter to the media and the public, it is important that they be presented in ways that non experts can comprehend, even if doing so requires that some of the findings be simplified. One example of effective communication is the annual report of the trustees of the social security system in the United States. Each year the report captures front-page attention because it specifies the year in which the social security fund will be depleted if current policy continues without change. The trustees are appointed by the government but exercise independent judgment in their report which is regarded as an objective and authoritative forecast. The most recent report, issued in March 2005, projected that the main medical insurance fund will be exhausted in 2020 and that the social security fund will be exhausted in 2041. The report also contains 75-year actual forecasts that show social security expenditures rising from 4% to 6% of GDP and Medicare expenses soaring from 3% to almost 14%. Layers of assumptions undergird this single statistic, and these are appropriately discussed in the body of the report. It should be feasible to devise simple measures for the various types of sustainability analyses that national governments and outside experts have used to portray the fiscal future.

This paper began by noting that sustainability concerns have migrated from underdeveloped to developed countries and have shifted from medium- to long-term concerns. The long term may appear distant, but in re-engineering fiscal policy, it is already here. Most persons who will receive public pensions and health benefits 40 or 50 years from now are already in the country's workforce, contributing social insurance taxes and building expectations of what they will receive from government. Sooner or later all countries will have to confront the reality of expectations outracing means. Those that take on the task earlier will find it somewhat less onerous than those that tarry.

Notes

1. See Crippen (2003) for useful advice on dealing with the inherent uncertainty of long-term budget scenarios.

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