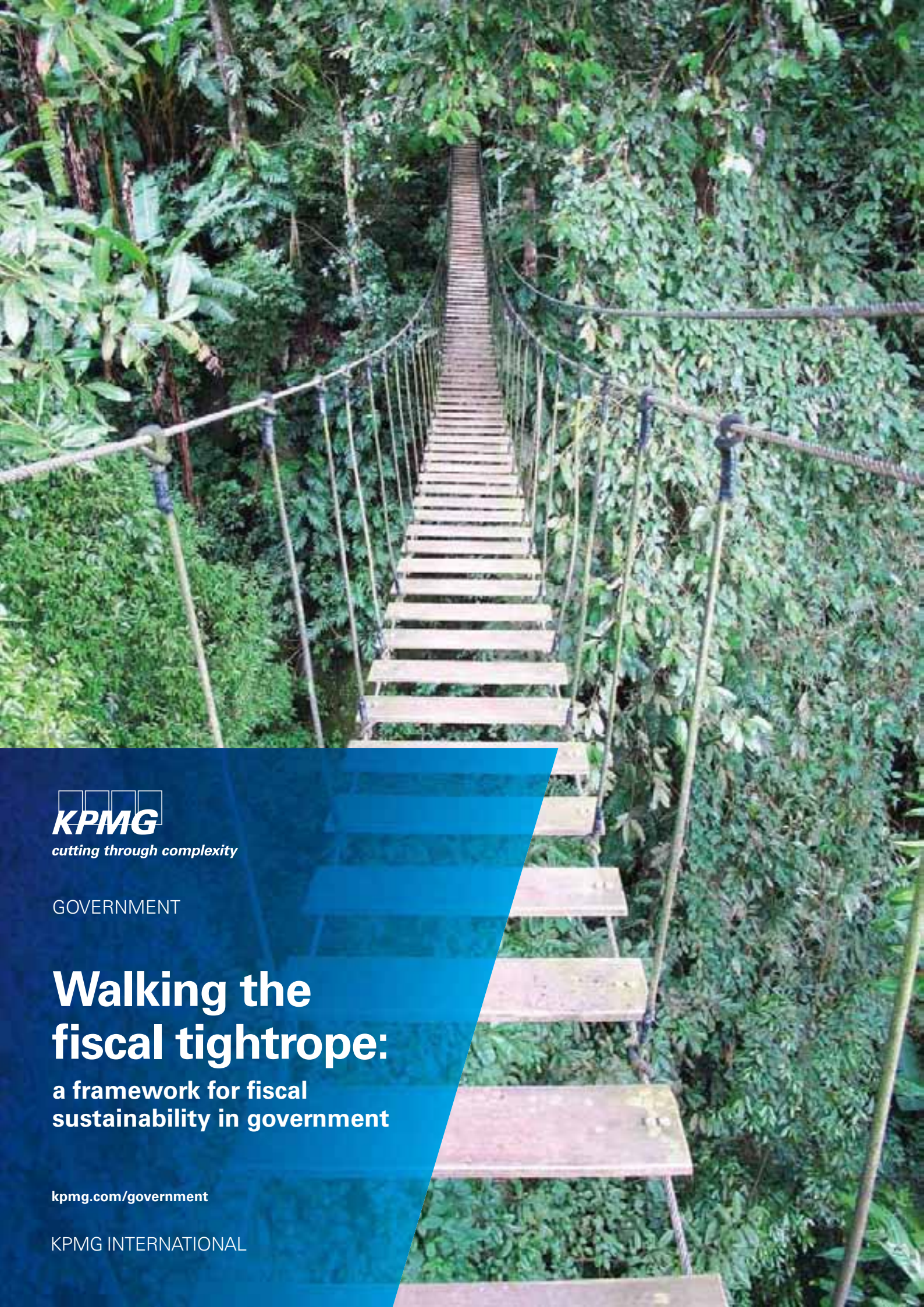

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GOVERNMENT

Walking the fiscal tightrope:

a framework for fiscal sustainability in government

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“There are some who seriously try to argue that additional spending and borrowing will actually lead to less debt in the end despite the fact that no evidence supports this assertion … These arguments are just a way of avoiding difficult decisions – the kind of something for nothing economics that got us into this mess, which is why no indebted European country is taking that path.”

David Cameron
Prime Minister of the United Kingdom

“I see considerable long-term tasks ahead of us that have to do with markets regaining confidence in Europe and that have a lot to do with reducing debt.”

Angela Merkel
Chancellor of Germany

“I found this national debt, doubled, wrapped in a big bow waiting for me as I stepped into the Oval Office.”

Barack Obama
President of the United States

Foreword

As the world continues to struggle with financial turmoil and sovereign debt concerns, the global financial community is actively working to strengthen mechanisms that foster greater international cooperation.

At the forefront of this activity are international and multilateral groups and bodies such as the Basel Committee, the Financial Stability Board, the G20 Mutual Assessment Process and the International Monetary Fund (IMF), which are increasingly focused on reshaping the international monetary system in order to facilitate strong, sustainable growth and improved economic outcomes for all nations.

But this burden of responsibility does not, and should not, lie solely on the shoulders of these larger global financial groups. Indeed, building better international and regional institutions relies on the ability of individual governments to ensure their own financial sustainability.

To achieve greater insight and understanding of the impacts of government debt and fiscal policy on the global economy, KPMG conducted research on 19 of the G20 countries to see how their fiscal policy settings held up within the context of the budgetary, economic and intergenerational cycles.

To achieve this, we sourced data from the System of National Accounts (SNA) and the Government Financial Statistics (GFS) for the general government sector. The compiled data was assessed within the context of each country's fiscal policy settings in order to provide an independent and consistent view of the state of each country's government finances.

Our findings challenge the widely-held belief that the sovereign debt crisis was uniquely caused by the recent global financial crisis (GFC). In fact, our research indicates that, in most cases, levels of government debt were already reaching their limits prior to the onset of the crisis in 2007-08.

Ultimately, our paper suggests that it is the persistent lack of fiscal discipline and an inability to achieve fiscal policy targets that make fiscal practice broadly inconsistent with the attributes of a competent fiscal sustainability framework. In response, KPMG has developed an outline of the essential characteristics and attributes of a fiscal sustainability framework for the public sector. We believe that by identifying the existing challenges and providing a viable and practical framework for facilitating fiscal sustainability, we can help government policy makers and national governments adjust to the post-GFC world and create positive change for the world economy.

We encourage you to contact your local KPMG member firm or any of the contacts listed in the back of this publication to learn more about applying this framework within your jurisdiction.

Nick Baker
Global Head
Finance & Treasury

John Herhalt
Global Chair
Government & Infrastructure

Throughout this document, "KPMG" ["we," "our," and "us"] refers to KPMG International, a Swiss entity that serves as a coordinating entity for a network of independent member firms operating under the KPMG name, and/or to any one or more of such firms. KPMG International provides no client services.

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Executive summary

Introduction

It seems not a week goes by without another dire warning about sovereign debt. Indeed, ever since the GFC began to 'morph' into what became known as the eurozone debt crisis, the world has been keenly focused on sovereign debt.

Interestingly, and counter to popular opinion, the roots of the current sovereign debt crisis do not lie solely in the GFC. In fact, according to our research, **the rise of sovereign debt among many of the G20 nations actually predates the GFC by some considerable time.**

> "The rise of sovereign debt among many of the G20 nations actually predates the GFC by some considerable time."

To be clear, budget deficits are not necessarily a bad thing. Budget deficits actually play an important macroeconomic role by providing stimulus when it is needed most and fiscal support when the national interest requires it. Persistent and high levels of debt, however, are another matter entirely. Not only does **persistent debt erode a nation's ability to afford the deployment of automatic stabilizers** when needed, but it ultimately **leads to intergenerational inequity.**

Some observers would suggest that this era of deficit spending will turn around in due course; that sovereign debt, deficit budgets and slow economic growth are simply cyclical issues that will soon disappear. According to our research, however, **the challenges now facing government finance in many of the world's leading economies will likely not be solved in the short term.** Government indebtedness has taken some time to accumulate and it will take a similar time frame to remedy.

The unhappy truth is that economic growth is likely to be stubbornly slow in the near-term, leading to further strain on what are already sizable quantities of government debt. Perhaps more to the point, however, most, if not all, **governments will now also have to deal with the rising costs created by intergenerational aging,** which is already putting new pressure onto government budgets, particularly in the areas of health, aged pensions and long-term care.

Improving fiscal sustainability frameworks

To better understand the extent of the challenge, we examined the fiscal policy settings of 19 countries[1] within the G20 group of countries across the budgetary, economic and intergenerational cycles. We took a country-comparative perspective in order to highlight some of the existing fiscal policy framework elements against the trend perspective offered by each country's relevant government financial statistics. Across the board, we focused specifically on the general government sector (GGS), allowing us to apply an 'entity' lens rather than a macroeconomic one.

Based on these findings, we then set about developing an outline of what a truly competent fiscal sustainability framework might look like. Given the key findings summarized on the following pages, we believe this framework provides a practical and achievable road map to help governments around the world create a more sustainable, effective and efficient national economy for generations to come.

[1] The G20 member country not included is Brussels (representing the remaining European Union (EU) member states). Since the UK, France, Germany and Italy are included as separate G20 countries in their own right, further representation from EU member states was deemed unnecessary, given that many fiscal policies are 'Treaty driven'.

About the data

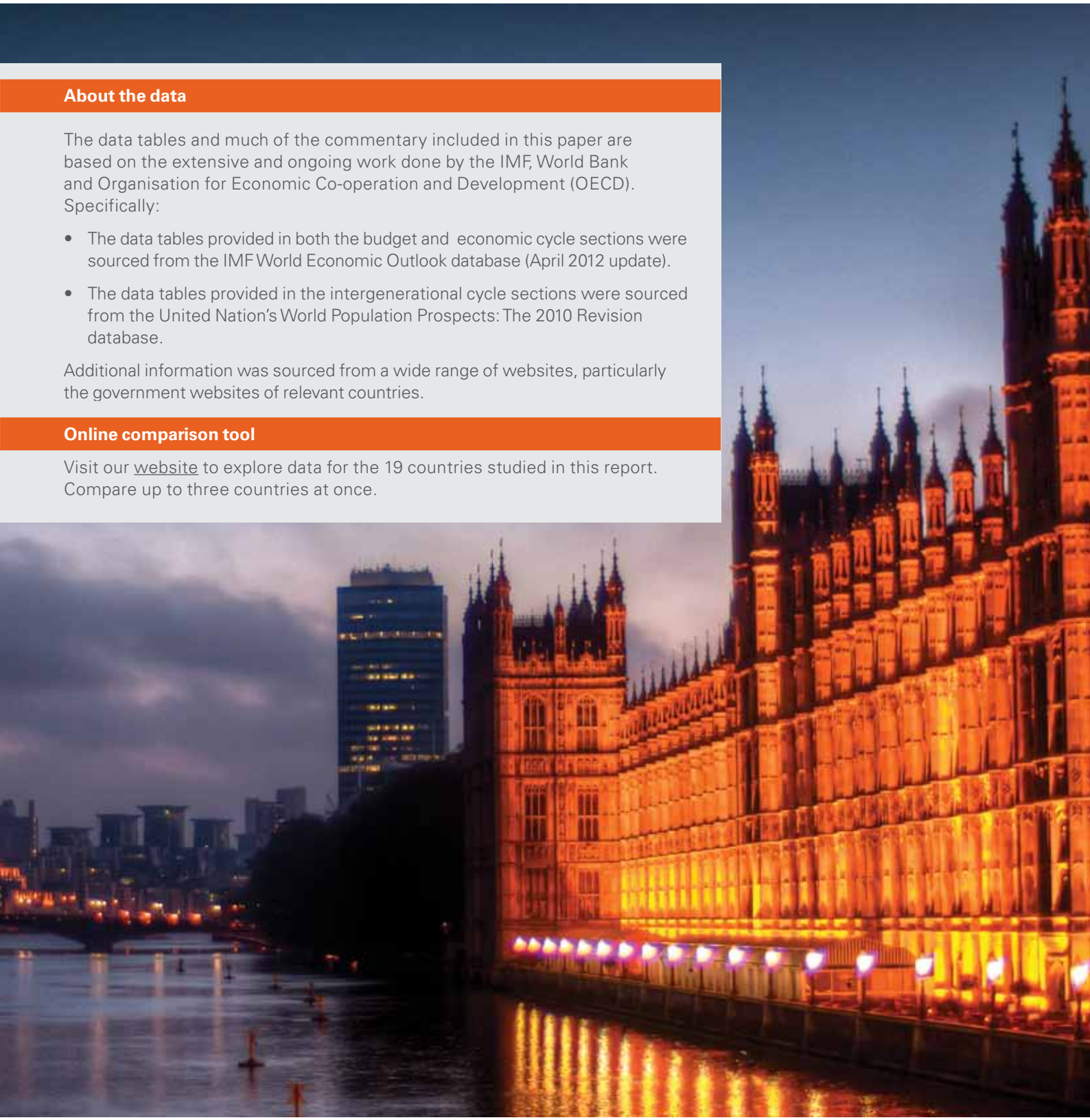
The data tables and much of the commentary included in this paper are based on the extensive and ongoing work done by the IMF, World Bank and Organisation for Economic Co-operation and Development (OECD). Specifically:

- The data tables provided in both the budget and economic cycle sections were sourced from the IMF World Economic Outlook database (April 2012 update).
- The data tables provided in the intergenerational cycle sections were sourced from the United Nation's World Population Prospects: The 2010 Revision database.

Additional information was sourced from a wide range of websites, particularly the government websites of relevant countries.

Online comparison tool

Visit our website to explore data for the 19 countries studied in this report. Compare up to three countries at once.



> Short-term thinking and political expediency in decision making tend to trump considerations of long-term fiscal sustainability.

Governments' ongoing struggles to achieve fiscal sustainability

In addition to a clear need for updated financial frameworks, there are a number of additional factors, notably an inability by governments to successfully implement and sustain their fiscal policy targets, that have created today's fiscal sustainability issues within many of the G20 countries examined in our study:

- **Short-termism and political expediency:** While fiscal sustainability is a widely-held goal of most governments, our research suggests that, in general, success has largely been diminished by the absence of a politically bipartisan, committed and sustained program of implementation. This is not entirely surprising. The path to restored fiscal health can rarely be achieved within the time frames ordinarily afforded to elected leadership. As a result, short-term thinking and political expediency in decision making tend to trump considerations of long-term fiscal sustainability.
- **Long streams of budget deficits predating the GFC:** Our research finds that during the 5-year period from 2002 to 2007, more than half of the countries had posted unbroken streams of budget deficits. This may be acceptable for developing nations during the investment cycle, but the countries in view here are almost all developed countries. This suggests that in addition to short-termism, there are problems with the fiscal policy settings of these governments.
- **GFC-driven automatic stabilizers:** Our research suggests that countries with high levels of gross debt prior to the start of the crisis (in excess of 60 percent of GDP) were not only severely limited in their ability to adequately respond to the GFC, but are now also facing a longer and more difficult path back to sound fiscal sustainability. So while the EU's general government gross debt target of 60 percent is likely appropriate in times of economic growth, it is clear that by carrying this level of debt into times of economic crisis, countries are less able to absorb the effects of automatic stabilizers, accommodate shock events or facilitate additional stimulus when needed. Simply put, if the levels of sovereign debt in eurozone countries had been lower in the first instance, then the strength and stability of the eurozone's institutional mechanisms and fiscal arrangements would probably never have been questioned.
- **Slow return to economic growth:** High levels of government debt will be further exacerbated by the impact of intergenerational aging and the ongoing shift toward the developing world, which will generally lead to continued sluggish economic growth in developed markets. In turn, slow economic growth will lead to sustained levels of high debt. As general government gross debt is typically measured as a percentage of GDP, economies that are not able to grow faster than the government can grow debt will see their debt ratios increase.
- **Cost of debt:** It is not just the size of debt relative to GDP that matters in fiscal sustainability, but also the cost of that debt to the budget. The US and Japan, for example, enjoy low cost access to funds which invariably means that the quantum of debt remains manageable. However, should the cost of debt increase, then the affordability of that debt will become a much graver concern. This relationship has been made very clear throughout the eurozone debt crisis as countries' borrowing costs spiked due to investor concerns of default which, in turn, has made the level of debt unmanageable.

The risk of inaction is real and present

Even once current fiscal pressures subside, many of the G20 countries will find no respite due to the challenges created by:

- **Intergenerational impacts:** All evidence suggests that another wave of fiscal stress has started, the result of budgetary pressures caused by intergenerational aging which, in turn, will further heighten the need for sustained fiscal policy action (such as budget management and the restoration of balance sheet health) over the next 40 years. The challenge will also be felt in developing world countries, where the introduction of wider access to social security and health coverage may combine with rising age ratios to create challenging fiscal burdens for government.
- **Global economic interconnectedness:** As economies become increasingly interconnected, slow growth outlooks within any sizable portion of the world economy will inevitably lead to fiscal challenges in other jurisdictions. But as the balance of trade shifts to the developing world, our research suggests it is the developed world economies that are creating the most significant sovereign debt challenges. Indeed, of the debt that will have been accumulated by the 19 countries in our study by 2015, an estimated 86.5 percent will be held by the top seven select developed countries (Canada, France, Germany, Italy, Japan, UK and US). The eight developing countries in our study (Argentina, Brazil, China, India, Indonesia, Mexico, South Africa and Turkey) will hold only 11.61 percent. This is not a matter of comparative size. Both this select developed country group and the developing country group will command 36 percent and 32 percent of world GPD by 2015 respectively, making them roughly equal in their weighting within the global economic order.

“The challenge will also be felt in developing world countries, where the introduction of wider access to social security and health coverage may combine with rising age ratios to create challenging fiscal burdens for government.”

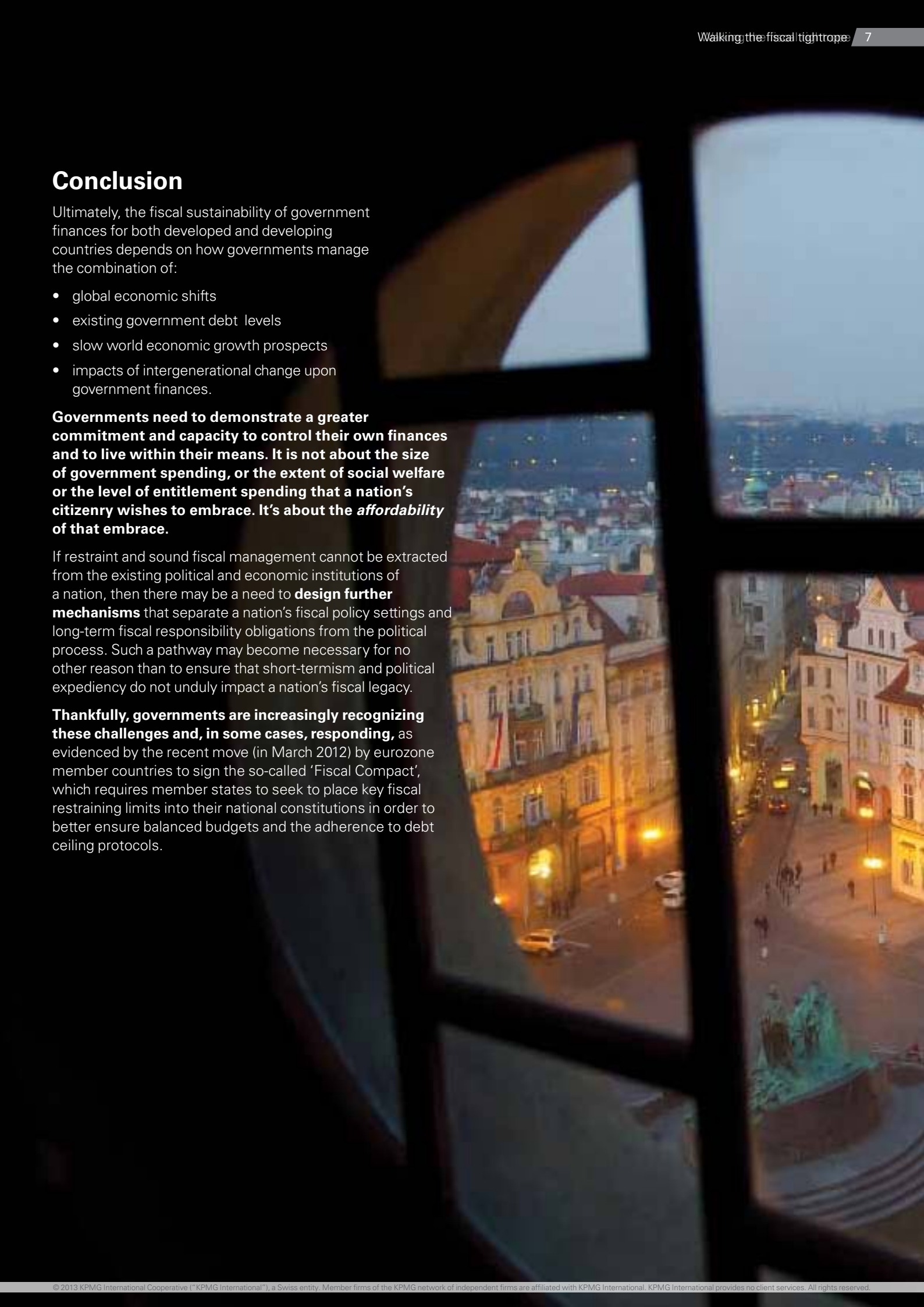
> “I could end the deficit in 5 minutes. You just pass a law that says that anytime there is a deficit of more than 3 percent of GDP, all sitting members of Congress are ineligible for re-election.”
>
> **Warren Buffett**

The solution: Better frameworks—and an improved commitment to adhere to them long term

With the rising visibility of sovereign debt over the past 5 years, coupled with the growing fiscal pressure created by intergenerational aging, it is clear that action must be taken to develop and implement a fiscal sustainability framework that includes:

- **Balanced fiscal policies:** A fiscal sustainability framework must ensure that fiscal policy is balanced to achieve an objective of governing for the just and common good of current and future generations within the constraints of economic affordability, national security priorities, social cohesion imperatives and environmental sustainability.
- **Defined targets:** Ultimately, the framework must specify and use targets set around key fiscal aggregates. While not foolproof, targets are nonetheless a well-used approach among G20 countries.
- **A view across budgetary, economic and intergenerational cycles:** There is a clear and present recognition that government finances and budget settings need a more complete consideration of fiscal sustainability that spans not only the budget cycle (1-5 years), but also the economic cycle (6+ years) and the intergenerational cycle (10+ years).
- **Success factors and key performance indicators (KPIs):** Fiscal sustainability frameworks must include measurable and defined KPIs that can be used to monitor fiscal sustainability progress. These include the attainment of defined targets as discussed above, as well as market-driven indicators such as the attainment of government AAA credit ratings.
- **Committed and sustained implementation:** There is a significant difference between developing a fiscal sustainability framework and properly implementing it, the latter being the bigger challenge. Achieving practical results requires politically bipartisan commitment to prioritize and improve government finances for both current and future generations. Governments must strive to develop the appropriate mechanisms and institutional objectives to ensure sustained implementation across the political cycle.
- **Coordinated regulatory, policy and financial frameworks:** Fiscal sustainability objectives are often better realized when robust regulatory and financial system institutional frameworks, competent fiscal policy frameworks and rigorous fiscal management implementation practices all work together.

> “Action speaks louder than words but not nearly as often.”
>
> **Mark Twain**



Conclusion

Ultimately, the fiscal sustainability of government finances for both developed and developing countries depends on how governments manage the combination of:

- global economic shifts
- existing government debt levels
- slow world economic growth prospects
- impacts of intergenerational change upon government finances.

Governments need to demonstrate a greater commitment and capacity to control their own finances and to live within their means. It is not about the size of government spending, or the extent of social welfare or the level of entitlement spending that a nation's citizenry wishes to embrace. It's about the *affordability* of that embrace.

If restraint and sound fiscal management cannot be extracted from the existing political and economic institutions of a nation, then there may be a need to **design further mechanisms** that separate a nation's fiscal policy settings and long-term fiscal responsibility obligations from the political process. Such a pathway may become necessary for no other reason than to ensure that short-termism and political expediency do not unduly impact a nation's fiscal legacy.

Thankfully, governments are increasingly recognizing these challenges and, in some cases, responding, as evidenced by the recent move (in March 2012) by eurozone member countries to sign the so-called 'Fiscal Compact', which requires member states to seek to place key fiscal restraining limits into their national constitutions in order to better ensure balanced budgets and the adherence to debt ceiling protocols.

> We believe that it is useful to consider seven key interrelated elements that make up a strategic financial framework for the public sector.

Fiscal sustainability frameworks: In context

Our findings as described in the previous pages highlight the imperative for a disciplined approach to fiscal sustainability. As such, we have developed an outline of what a truly competent fiscal sustainability framework might look like.

However, in proposing the attributes of an improved fiscal sustainability framework for the public sector, it is necessary, at least initially, to put forward a more complete model, whereby the full array of typical strategic financial frameworks can be considered in context.

Clearly, outlining the strategic financial frameworks used by governments around the world is not a straightforward process, particularly given the many and often varied views of these frameworks that are held by key and knowledgeable stakeholders. As a consequence, there is essentially no widely agreed upon strategic financial framework structure that is universally promoted and/or accepted.

Notwithstanding this issue, and for the benefit of convenience in the context of this paper, we believe it is useful to consider seven key interrelated elements that make up a strategic financial framework for the public sector. These are discussed in more detail in the following section.

1) **Fiscal sustainability framework:** sustaining public finances over the short, medium and long term
2) **Financial accountability framework:** facilitating financial governance over the executive government and its agencies
3) **Budgeting framework:** setting fiscal policy and measures within the constraints of economic affordability, security imperatives, social cohesion aspirations and environmental sustainability in order to appropriately resource the business of government
4) **Appropriation framework:** authorizing the spending and borrowing of the executive government of the day
5) **Cash management framework:** managing, controlling and reporting cash flows (receipts and payments) and cash adequacy
6) **Financial reporting framework:** requiring the complete, timely, transparent and independently audited financial results of government
7) **Performance reporting framework:** requiring the complete, timely and transparent assessment of the performance results of government

Table 1 provides a summary of a suggested fiscal sustainability framework for the general government sector.

Table 1: Summary of a competent fiscal sustainability framework

Context:	To set the budget within the context of fiscal sustainability.
Objective:	To govern for the just and common good of current and future generations.
Defined:	A fiscal sustainability framework helps ensure the balance of fiscal policies is constructed in such a way that the objective can be maximized within the constraints of: • economic affordability • national security priorities • social cohesion imperatives for citizen access and equity • environmental sustainability.
Description:	**Budget cycle (1-5 years) or medium-term fiscal framework (MTFF)** Targets over the cycle are: • aggregated net operating balance (NOB) to be either balanced (= 0) or in surplus • aggregated comprehensive result (CR) to be either balanced (= 0) or in surplus. Important to note the following: • The net operating balance is the preferred MTFF fiscal sustainability measure, as it best equates to the accrual measure of the ordinary 'transaction' business of government. • The comprehensive result or change in net worth is the preferred, yet more challenging, MTFF fiscal sustainability measure, as it best equates to the full accrual measure of the period.
	Economic cycle (medium-term or 6+ years) Targets over the cycle are: • net worth at zero or greater over the cycle • gross debt and net debt meet target limits • alignment of non-financial assets to interest bearing debt • alignment of financial assets to non-interest bearing debt.
	Intergenerational cycle (long-term or 10+ years) Target is to address the fiscal pressures through: • the preparation of intergenerational reports (IGR) • the preparation of a national infrastructure priority plan (NIPP) • the establishment of an insurer of last resort (ILR) provision.
Above all, a leading practice fiscal sustainability framework should encompass the bipartisan commitment to sustain or improve government finances over the short, medium and long term.	
	Key fiscal sustainability framework objectives should be measureable by: • the attainment and maintenance of government AAA credit ratings • the attainment of MTFF budget cycle fiscal sustainability targets related to NOB and/or CR • the attainment of economic cycle fiscal sustainability targets related to: – net worth – gross debt and net debt – alignment of non-financial assets to interest bearing debt – alignment of financial assets to non-interest bearing debt. • the attainment of intergenerational cycle fiscal sustainability initiatives, including: – the preparation of periodic intergenerational reports – the preparation of a national infrastructure priority plan – the establishment of an insurer of last resort provision.

Source: KPMG International, 2013

A fiscal sustainability framework for the public sector

About government financial frameworks

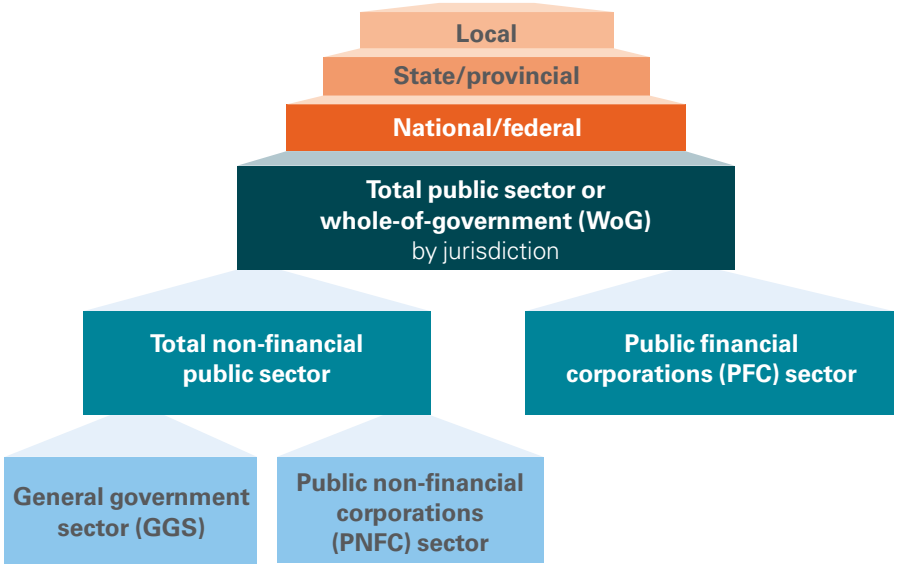
Introduction to SNA, GFS and government sectors

The framework concepts and country profiles presented in this paper focus on the general government sector (GGS) or budget sector data of 19 countries in the G20 group of countries.

This data is routinely compiled under the System of National Accounts (SNA) and Government Financial Statistics (GFS) standards used internationally by country governments and centrally compiled and held by the International Monetary Fund (IMF) in their World Economic Outlook (WEO) database.

Figure 1 illustrates how the GGS relates to the overall institutional sector classifications used by governments under the SNA. For a more complete overview of these standards, please refer to Appendix A.

Figure 1: Public sector classifications (extract) per the SNA



Source: KPMG International, 2013 (based on the System of National Accounts (SNA) 2008)

The key data sets used to assess the general government sector of the 19 countries discussed in this paper include:

- general government revenue
- general government expenses
- general government net fiscal lending/borrowing
- general government gross debt
- general government net debt (where available).

For a more detailed explanation of these GFS accounting concepts, please refer to Appendices A and B or the official GFS manual available for download at various websites including www.imf.org.

To conduct our assessment, we also used country-specific data including GDP growth (as a percentage of GDP), national unemployment rates, inflation rates and population figures from the UN's World Population Prospects database.

Introduction to strategic financial frameworks

A key focus of this paper is to present the elements of a sound fiscal sustainability framework. However, in outlining the attributes of a better practice fiscal sustainability framework for the public sector, it is necessary, at least initially, to propose a more complete model, whereby the full array of typical strategic financial frameworks can be considered in context.

Clearly, outlining the strategic financial frameworks used by governments around the world is not a straightforward process, particularly given the many and often varied views of these frameworks that are held by key and knowledgeable stakeholders. As a consequence, there is essentially no widely agreed upon strategic financial framework structure that is universally promoted and/or accepted.

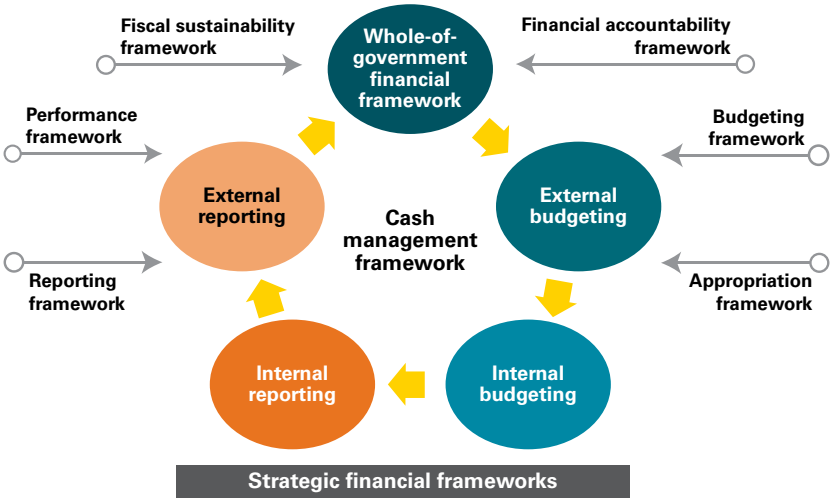
> “There is essentially no widely agreed upon strategic financial framework structure that is universally promoted and/or accepted.”

Notwithstanding this issue, and for the benefit of convenience in the context of this paper, we believe it is useful to consider **seven key interrelated elements that make up a strategic financial framework for the public sector.** The strategic financial frameworks typically found in the public sector include:

1) **Fiscal sustainability framework:** sustaining public finances over the short, medium and long term
2) **Financial accountability framework:** facilitating financial governance over the executive government and its agencies
3) **Budgeting framework:** setting fiscal policy and measures within the constraints of economic affordability, security imperatives, social cohesion aspirations and environmental sustainability in order to appropriately resource the business of government
4) **Appropriation framework:** authorizing the spending and borrowing of the executive government of the day
5) **Cash management framework:** managing, controlling and reporting cash flows (receipts and payments) and cash adequacy
6) **Financial reporting framework:** requiring the complete, timely, transparent and independently audited financial results of government
7) **Performance reporting framework:** requiring the complete, timely and transparent assessment of the performance results of government.

Figure 2 illustrates how these frameworks interact with the budgeting and reporting cycles of both central and line agencies. It is worth noting that, while this paper focuses predominantly on the fiscal sustainability framework, it also takes into account aspects of other frameworks where required.

Figure 2: Strategic financial frameworks in context



- Fiscal sustainability framework
- Financial accountability framework
- Budgeting framework
- Appropriation framework
- Cash management framework
- Reporting framework
- Performance framework

Source: KPMG International, 2013

Table 2 summarizes the essential characteristics of each of these seven frameworks as they relate to governance, independence and accountability, as well as their principal stakeholder needs and requirements.

Table 2: Essential characteristics of strategic financial frameworks

Strategic financial framework	Governance, independence and accountability	Principal stakeholder needs and requirements
Fiscal sustainability	Fiscal policy settings and fiscal governance	Setting the budget context for the short, medium and long-term outlook
Financial accountability	Financial governance over the executive government, treasury and agency resources	Ensuring the economic, efficient, effective and ethical use of agency resources
Budgeting	Publicly accessible budget statements	Setting the budget within the economic, security, social cohesion and environmental context
Appropriation	Parliamentary/legislative governance over government spending	Ensuring parliamentary/legislative scrutiny over spending priorities and costs
Cash management	Control of drawn down/spending limits and monitoring of cash adequacy	Ensuring both timely and appropriate cash and treasury management
Financial reporting	Independently audited financial statements	Reviewing financial results achieved against the original intent of government (as per the budget)
Performance	Accountability and control over the transparent reporting of the results of government policy, regulation and program operations (services)	Reviewing performance results achieved against the original intent of government policy, regulatory purpose and service targets

Source: KPMG International, 2013

Fiscal sustainability framework

With the rising visibility of sovereign debt over the past 5 years, coupled with the phenomenon that is intergenerational aging, many governments around the world are increasingly focused on improving their fiscal sustainability frameworks. As such, this paper places particular focus on the current and emerging fiscal policy settings and frameworks used in establishing the fiscal sustainability framework of the 19 countries in the G20 group of countries.

Indeed, there is a clear and present recognition that government finances and budget settings need to include a more complete consideration of fiscal sustainability that is short, medium and long term in its perspective. Some of the approaches used by countries included in this paper demonstrate this trend. For example:

- There is increasing implementation and use of medium-term fiscal frameworks (MTFF) inclusive of the use of automatic fiscal policy stabilizers and fiscal targets.
- Many countries have, or are moving toward, accrual accounting to better capture and assess both the flows and stocks that make up government business.
- The increasing preparation and use of long-term intergenerational reporting demonstrates the need for countries to more fully consider the longer-term fiscal consequences of the emerging pressures resulting from generational change, nation-building challenges and the desire to progressively balance economic, security, social and environmental policy aspirations.

Still, there are many and varied factors contributing to the fiscal policy settings and fiscal governance arrangements that a national or state/provincial government may pursue from time to time.

Table 3 outlines the structure adopted in this paper in order to present the essential, defining and common attributes of a fiscal sustainability framework.

“Indeed, there is a clear and present recognition that government finances and budget settings need to include a more complete consideration of fiscal sustainability that is short, medium and long term in its perspective.”

Table 3: Elements of a fiscal sustainability framework

Element	Description and purpose
Framework context	Where does a fiscal sustainability framework sit relative to the other financial frameworks in place (e.g. for budgeting, financial reporting, cash management and so on)?
Objective and definition	Why have a fiscal sustainability framework? What are the objective(s) of fiscal sustainability? What is fiscal sustainability trying to do? How should fiscal sustainability be defined?
Budget cycle (1-5 years)	What are the key fiscal sustainability issues, measures and areas of focus for the budget cycle?
Economic cycle (6+ years)	What are the key fiscal sustainability issues, measures and areas of focus for the economic cycle?
Intergenerational cycle (10+ years)	What are the key fiscal sustainability issues, measures and areas of focus for the intergenerational cycle?
Success factors and KPIs	How should success be measured? What are the KPIs that should be used to monitor fiscal sustainability?

Source: KPMG International, 2013

1. Framework context

When considering where a fiscal sustainability framework sits relative to the other financial frameworks used by government, it is important to appreciate that fiscal sustainability is essentially an attribute or governing objective of fiscal policy. It should, therefore, inform and provide perspective on current and future fiscal pressures facing government, both in terms of its revenue sources and mix of expenditure policies, as part of the budget process.

In this context, fiscal sustainability needs to consider both:

- the flows dictated by current revenue and expenditure policy settings over the short, medium and long term
- the stock impacts associated with:
  - reducing government debt
  - replenishing government assets, including items such as the funding of replacement or refurbished government assets
  - provisioning of sufficient capital for the funding of nation-building projects for both hard and soft infrastructure
  - meeting emerging government liabilities such as public pensions
  - providing sufficient funds for 50-year stress events such as natural disasters, economic crisis events and other shock events associated with the role of government as the 'insurer of last resort'.

It is worth noting that fiscal sustainability objectives are not solely realized through the budget process. Rather, the objectives also influence other policy and regulatory mechanisms that are established and maintained by a country in such areas as national banking regulatory arrangements, corporate and financial market regulation and so on.

However, in the context of the suite of frameworks that comprise the overall strategic financial framework, the budget context becomes the crucial mechanism whereby the influence of fiscal sustainability needs to be realized in practice.

In summary, it is most relevant to consider the fiscal sustainability framework context as being:

To set the budget within the context of fiscal sustainability.

“It is worth noting that fiscal sustainability objectives are not solely realized through the budget process.”

2. Objective and definition

There continues to be some debate as to whether governments need a fiscal sustainability framework at all. Some would suggest there are already sufficient constitutional or legislative mechanisms in place to ensure government business is conducted in a fiscally sustainable manner such that a separate fiscal sustainability framework is not necessary. Indeed, there is some evidence to support this notion. For example:

- The recently-agreed (in March 2012) Fiscal Compact signed by all eurozone countries seeks to enshrine fiscal sustainability targets for balanced budgets within the national constitutions of member states.
- Brazil's Constitution, in no small part, addresses annual budgets, pluriannual plans and budgetary directives, while the Brazilian *Fiscal Responsibility Law* essentially acts as a supplementary law to the Brazilian Constitution.

However, it is more important to recognize that such framework implementation approaches need to be seen in light of a government's attempt to codify fiscal responsibility and sustainability settings rather than ignore them. In other words, such controls have been deemed necessary in the context of controlling the effects of vested interests and/or minimizing the downside impacts of political nearsightedness that often arise from the 'cut and thrust' of short-term politics and political self-interest.

Still, even when fiscal controls are seemingly in place and rock solid, there are still instances where:

- the legislation or constitutional provision will be allowed to be overridden or modified
- the provisions are incomplete or missing elements of a sound fiscal sustainability framework
- the targets are expressed in terms which almost deliberately attract a wide and undisciplined interpretation in practice.

These examples clearly highlight the need for a fiscal sustainability framework. Moreover, the fact that countries will go so far as to provide a legal or constitutional basis for such frameworks further emphasizes that a primary objective for such a fiscal sustainability framework is bipartisan support and commitment from all sides of politics. One of the key aims in such a codification is to put in place a degree of fiduciary control over the executive government of the day in order to ensure that a single-term government is not able to impair the fiscal legacy of future generations.

In this context, the objective of a sound fiscal sustainability framework is one whereby fiscal policy setters and the government of the day are both informed and have the fiduciary capacity:

To govern for the just and common good of current and future generations.

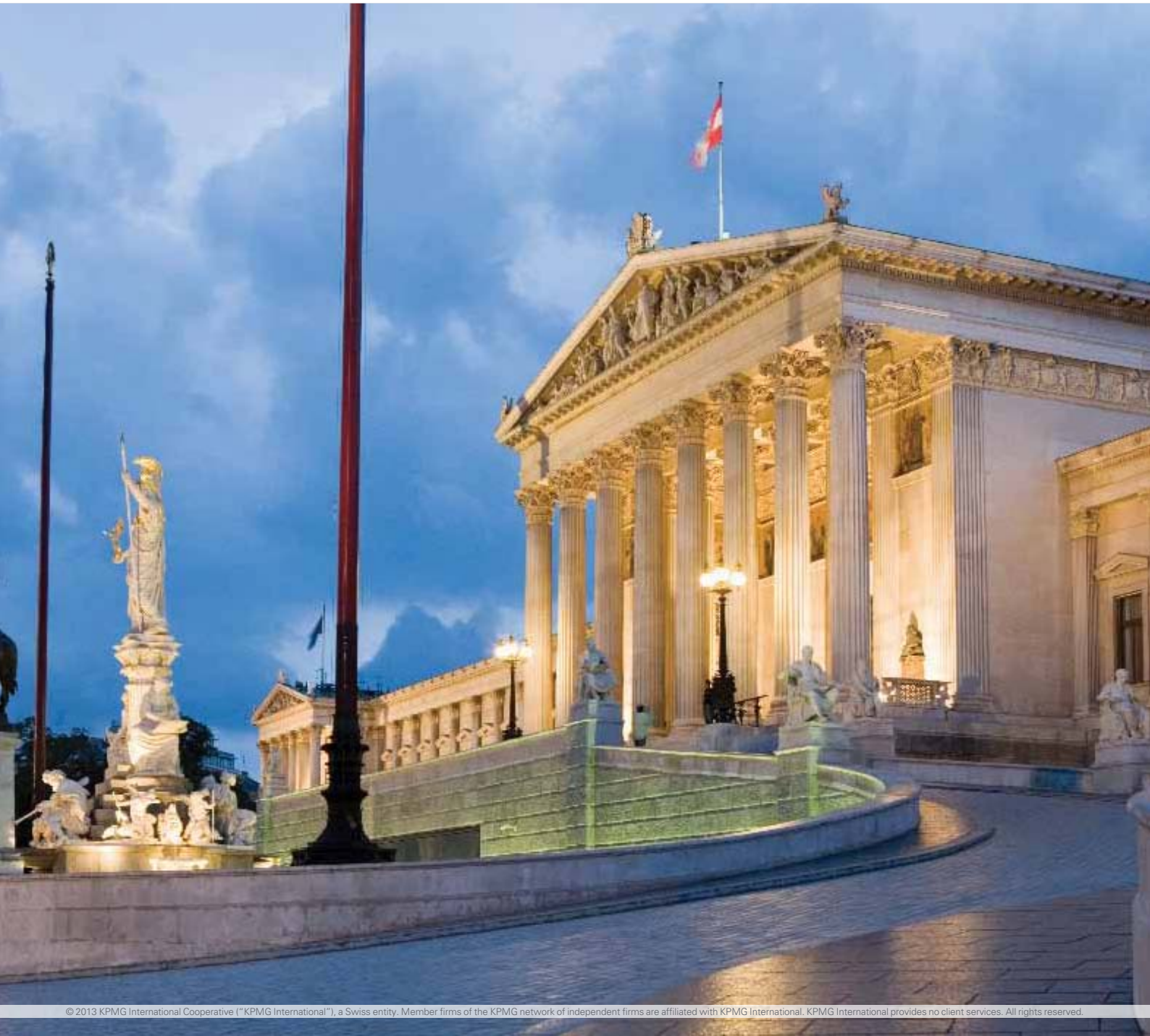
Considering this objective, it follows that:

A leading practice fiscal sustainability framework encompasses the bipartisan commitment to prioritize and improve government finances for both current and future generations.

Pursuant to this objective and the defining attribute of a leading practice fiscal sustainability framework, we have adopted the following definition of a fiscal sustainability framework for the purposes of this paper:

A fiscal sustainability framework ensures that the balance of fiscal policies is constructed in such a way that the objective of governing for the just and common good of current and future generations can be maximized within the constraints of:

- **economic affordability**
- **national security priorities**
- **social cohesion imperatives for citizen access and equity**
- **environmental sustainability.**



3. Budget cycle

The predominant method among G20 countries studied in this paper includes an approach to the budget cycle whereby a medium-term fiscal framework (MFTT) is used. In this respect, the concept of medium-term is typically considered to be in the 3-5 year range.

The MTFF is frequently favored because it focuses on both the immediate fiscal imperatives, as well as medium-term fiscal issues; an orientation in fiscal emphasis that essentially suggests that longer-term fiscal issues are often too far away to warrant undue attention.

Consequently, typical budgeting models use a multi-year approach that includes the budget year plus a number of forward estimate years. While such an approach readily facilitates the short- to medium-term consideration of fiscal policy, emerging better practice budgeting arrangements also include a consideration of policy settings over the longer term.

That is, some G20 countries are starting to appreciate that there are, in fact, clear benefits for government finances and fiscal sustainability in adjusting fiscal policy settings decades before they become ever more onerous. Indeed, a number of the G20 countries studied in this paper, such as the US and Canada, include the impact of delay on fiscal sustainability in their long-term fiscal policy and strategy.

Fiscal sustainability framework settings over the budget cycle support the need for a medium-term fiscal framework. Best practice is an MTFF that accommodates the long-term fiscal issues brought on by generational aging and the need to provision for nation-building infrastructure, shock events and debt reduction.

What to measure for fiscal sustainability?

When discussing bottom line budget figures, there is almost always a clear political and media focus on the deficit or surplus result of the general government budget.

However, there is some discrepancy in what is described as being included or not included in this result. For example, some countries refer to a primary deficit/surplus which excludes any consideration of interest payments; others to a structural deficit/surplus; and some to one of a number of GFS measures, such as net fiscal lending/borrowing (NFL/B), net operating balance (NOB) and GFS cash surplus/deficit.

For the purposes of consistency, we have adopted the terms and definitions that are consistent with the SNA and, more particularly, the IMF's GFS 2001 manual. It is important to note, however, that GFS 2001 fully supports accrual accounting for government reporting purposes. That is, GFS accrual concepts can be used in both budget reporting and financial (actual) reporting.

While G20 countries can adopt either a cash or accrual approach to preparing their national accounts, the trend is moving toward accrual accounting where governments can produce all three primary statements (usually the operating statement/income statement, the balance sheet and the statement of cash flows), thus providing a more complete assessment of the flows and stocks synonymous with the SNA and GFS frameworks.

> "The MTFF is frequently favored because it focuses on both the immediate fiscal imperatives, as well as medium-term fiscal issues."

The accrual approach not only provides the necessary cash information often used by governments, it also produces additional operating statement and balance sheet information. This additional information provides significant advantages when assessing and reporting on fiscal sustainability. For example, those countries that have done the most regarding long-term fiscal sustainability reporting (including countries such as Australia, Canada and the UK) are also those that have access to the accrual accounts of general government.

GFS 2001 also specifies the key fiscal aggregates that are most relevant to policy advisors and government leaders, not only when considering revenue and expenditure policy measures, but also for the assessment of aspects pertaining to fiscal sustainability. For a more detailed explanation of the key concepts of GFS 2001, please refer to Appendices A and B.

Therefore, in order for a fiscal sustainability framework to have clarity and transparency in the budget process, the framework needs to express fiscal targets and settings that use these widely accepted key aggregate terms and concepts.

What to measure: Operating statement/income statement perspectives

It is important to recognize that GFS distinguishes between the economic transactions that actually occur and the other economic flows that impact financial statements as a result of changes in valuations and estimates.

Indeed, the SNA and GFS make an important distinction, namely, that transactions actually impact other areas of the economy whereas other economic flows reflect internal changes of economic value. In other words, while other economic flows are still real and reflect economic value, they are yet to occur in the broader economy until such a time as they are actually transacted. For example:

- asset revaluation reflects internal changes to asset worth as measured by match-to-market valuation/estimation
- changes in actuarial estimates on provisions for pension funds reflect the most current information on obligations but not the actual transaction amounts that will ultimately be paid out; these will only become known when those transactions actually occur.

In summary, the distinction between transactions and other economic flows is important within GFS to ensure that financial information is recorded in such a way that it readily integrates with the SNA which, in turn, makes the financial information economically relevant in terms of measuring the impact of the government's fiscal strategy on the rest of the economy.

Those familiar with GFS concepts will also be familiar with the following GFS key fiscal aggregates:

Net operating balance (NOB)

GFS defines NOB as the summary measure of revenue and expense transactions on net worth. Net worth is equivalent to equity in normal accounting vernacular. The full change or impact on net worth in any one period is considered to be NOB plus net other economic flows.

For the general government sector, NOB is calculated as general government revenue (from transactions) less general government expenses (from transactions).

Net fiscal lending/borrowing (NFL/B)

GFS defines NFL/B as the financial resources that the government absorbs from, or releases to, other sectors of the economy.

For the general government sector, NFL/B is calculated as NOB minus the net acquisition (disposal) of non-financial assets from transactions.

It follows that if NOB contains only revenue and expense transactions and the financial impact of transactions related to non-financial assets is removed, then the residual accrual measure of assets and liabilities are financial in nature. This explains why NFL/B is also defined as being equal to the net acquisition of financial assets minus the net incurrence of liabilities.

It is worth noting that, under the accrual version of GFS 2001, these operating statement fiscal aggregates will measure transactions on an accruals basis and, as a result, the actual cash information under accrual accounting is reflected in the statement of cash flows. For more information, please refer to Appendices A and B.

What to measure: Statement of cash flow perspectives

GFS cash surplus/deficit

GFS defines the cash surplus/deficit as the net cash inflow from operating activities minus the net cash outflow from investments in non-financial assets.

Therefore, the GFS cash surplus/deficit aggregate excludes both net investing cash activities arising from the sale or purchase of financial assets and net financing cash activities.

For the general government sector, the cash surplus/deficit is calculated as net operating cash plus net investing cash arising from the sale/purchase of non-financial assets.

What to target?

An important element of a fiscal sustainability framework is that it must ultimately specify and use targets, particularly targets set around key fiscal aggregates. While not foolproof, they are nonetheless a well-used approach among G20 countries.

In recent years, the use of deficits by G20 countries (as measured by NOB, NFL/B or GFS cash surplus/deficit) has occurred as a result of governments' need to respond to the GFC and provide support to their financial systems. Naturally, this has taken varying forms in different countries and was subject to country or specific regional circumstances as per the European Union (EU).

However, once this initial financial system support was in place, it was the downstream impacts on country economic performance that caused the deployment of automatic stabilizers which, in turn, continued to drive deficit budgets.

Predictably, slowing economic growth and the onset of recession in many G20 countries led to a commensurate decline in government revenues and increase in government expenditures such as unemployment benefits and other social safety net mechanisms.

“An important element of a fiscal sustainability framework is that it must ultimately specify and use targets, particularly targets set around key fiscal aggregates.”

While it is a crude indicator, it is interesting to note that:

- The aggregated 7-year average of deficits/surpluses (NFL/B) from 2002 to 2008 (inclusive) across the 19 countries in this study *prior to the GFC* was –7.02 percent of GDP.
- The aggregated 7-year average of deficits/surpluses (NFL/B) from 2009 to 2015 (inclusive) across the 19 countries in this study *following the GFC* is estimated to be –21.02 percent of GDP.

This equates to an aggregated (deficit) difference of –14 percent of GDP between the two periods.

This analysis not only demonstrates the impact that shock events can have on government finances, it also raises a number of broader fiscal sustainability questions such as:

- Should governments be making better provisions for shock events?
- How are governments capping the extent (size) or duration (time) of automatic stabilizers?
- Are the levels of entitlements and services in some G20 economies becoming unsustainable?
- Is the quantum of government revenue that is subject to the effect of automatic stabilizers too large such that further taxation reform/adjustment is warranted?
- To what extent is the social safety netting of today detracting from the government's longer-term capacity to provide a sustainable level of social safety netting for tomorrow?

Achieving a balanced budget (typically expressed as either NOB = 0, NFL/B = 0 or GFS cash surplus/deficit = 0) is understandably an important target for a fiscal sustainability framework. And while a balanced budget result is rarely achieved every year, there are often good reasons for this. Consequently, any fiscal sustainability target related to an NOB, NFL/B or GFS cash surplus/deficit result needs to be considered over a medium-term fiscal framework or other time frame.

This implies that a key fiscal sustainability target objective can be expressed as either:

1) **NOB should be at least zero or greater over the MTFF (or budget cycle), or**
2) **NFL/B should be at least zero or greater over the MTFF (or budget cycle), or**
3) **GFS cash surplus/deficit should be at least zero or greater over the MTFF (or budget cycle).**

However, before considering why a 3 to 5-year budget cycle is a sufficient time frame for NOB, NFL/B or GFS cash surplus/deficit to be at least equal to zero in aggregate, it is worthwhile to consider the circumstances under which deficits are typically used by governments in the first place. Indeed, why does a government ever need to go into deficit at all? The following list, while illustrative only, provides an overview of some of the circumstances that typically provide a basis for a deficit budget position in any given year:

- An economy is in an economic downturn or recession and the impact of automatic stabilizers, such as weak revenue from declining tax receipts and increasing expense pressure from unemployment benefits, drives a shortfall in government funding.

- An economic stimulus is deemed necessary in order to encourage economic growth or minimize the downstream impacts of a weak or weakening economic outlook, but the level of that stimulus cannot be directly met from within year receipts. This stimulus may be focused on either revenue (in the form of tax cuts) or expenses (in terms of new or amended program expenditures).
- An economy deems that the funding of nation-building infrastructure is required to facilitate sustained economic growth, improved national defenses, social security or environmental outcomes and current government revenue streams are insufficient to fund the investment required.

Clearly, so long as the rate of economic growth (as a percentage of GDP) is greater than the deficits of government, all else being equal, then there is a sense that perpetual deficits may, in fact, be sustainable.

Table 4 provides a simple assessment to illustrate this point. For each of the 19 countries included in this paper, the table shows the difference between the GDP growth percentage and government deficit (NFL/B in percentage of GDP terms) in order to highlight the extent to which the yearly GDP growth percentage exceeds the deficit percentage. Where a national government's NFL/B was zero or in surplus, no calculation was performed and this is reflected in the table by blank cells.

Table 4: GDP growth 'coverage' for deficits (as a percentage of GDP) of G19 countries from 2000-15

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
Argentina	-4.40	-10.43	-26.76	4.64	6.06	7.62	7.58	6.57	5.95	-2.77	7.58	5.58	1.15	1.82	1.75	3.48	2010
Australia									1.71	-2.74	-2.23	-2.23	0.56	2.86	3.24		2011
Brazil	0.93	-1.29	-1.76	-4.05	2.84	-0.37	0.41	3.40	3.78	-3.40	4.73	0.13	0.69	1.76	1.73	1.80	2011
Canada			2.83	1.80						-7.66	-2.34	-2.09	-1.59	-0.76	0.23	0.97	2011
China	5.16	5.50	6.13	7.58	8.60	9.92	12.00		9.25	6.12	8.16	7.99	6.93	7.82	8.11	8.56	2011
France	2.35	0.14	-2.34	-3.20	-1.28	-1.10	0.28	-0.52	-3.54	-10.20	-5.71	-3.62	-4.09	-2.86	-1.20	-0.29	2010
Germany		-1.20	-3.71	-4.45	-3.10	-2.59	2.28		0.75	-8.29	-0.71	2.01	-0.19	0.91	0.95	1.07	2011
India	-4.85	-6.49	-5.56	-2.72	-0.04	2.35	4.05	5.82	-1.01	-3.22	1.46	-1.42	-1.46	-0.92	-0.58	-0.23	2010
Indonesia	2.17	0.95	3.63	3.41	4.41			5.31	6.01	2.87	4.98	4.88	5.13	5.58	5.92	6.03	2010
Italy	2.80	-1.22	-2.54	-3.57	-1.81	-3.42	-1.13	0.21	-3.83	-10.86	-2.68	-3.52	-4.29	-1.84	-1.12	-0.46	2011
Japan	-5.30	-5.68	-7.42	-6.10	-3.59	-2.13	-1.96	0.10	-5.15	-15.92	-4.93	-10.82	-7.95	-7.02	-6.33	-6.29	2010
Korea																	2010
Mexico	2.92	-4.09	-3.47	-0.88	2.69	1.80	4.15	2.07	0.08	-10.95	1.24	0.55	1.22	1.50	1.70	1.25	2010
Russia										-14.11	0.79			3.59	3.40	2.36	2011
Saudi Arabia			-3.18							-4.55							2010
South Africa	2.58	1.57	2.56	1.09	3.34				3.16	-6.83	-1.96	-1.43	-1.62	-0.25	0.86	1.51	2010
Turkey	n/a	n/a	-7.75	-4.77	5.43	8.15		3.02	-1.74	-10.44	6.28	8.19	0.56	1.19	2.17	2.71	2010
United Kingdom			0.68	0.22	-0.42	-1.25	-0.04	0.77	-6.03	-14.75	-7.76	-8.01	-7.13	-4.53	-2.49	-1.04	2010
United States	n/a	0.81	-2.07	-2.35	-0.92	-0.12	0.62	-0.83	-7.03	-16.53	-7.46	-7.83	-5.97	-3.94	-2.02	-1.12	2010

GDP % growth > deficit %	The economy grows at a faster rate than the deficit.
Not a deficit year	This was not a deficit year.
GDP % growth < deficit %	The economy grows at a slower rate than the deficit.

Source: KPMG International, 2013 (based on IMF sourced data)

Table 4 shows the extremes of countries such as China, which has had (or expects to have) deficits in 14 of the 15 years covered by this analysis and yet is still able to achieve (or expects to achieve) an excess of GDP growth percentage against the deficit percentage in every year. This compares starkly to countries such as France, Germany, India, Italy, Japan, the UK and the US, where GDP percentage growth is (or is expected to be) less than the corresponding deficit percentage of that year and for the majority of the years covered by this analysis.

Not only does the foregoing analysis demonstrate the difficulties involved in formulating simple rules for fiscal sustainability related to NFL/B, it also suggests that other information will be needed to place any key fiscal aggregate into a broader context.

This analysis suggests that a key fiscal sustainability target objective related to NFL/B can be modified and expressed as:

NFL/B should be at least zero or greater over the MTFF (or budget cycle) unless there are clear economic indicators to demonstrate that the growth prospects of the economy warrant further government investment.

> “NFL/B ... is of limited use as a measure for the purposes of setting targets from a fiscal sustainability perspective.”

While such a target rule facilitates the conditions under which sustained deficits might be justified, it raises the question of whether it demonstrates best practice fiscal sustainability or merely ‘allowable practice’ fiscal sustainability. For example, it can be argued that better practice fiscal suitability is the circumstance whereby the funds required for expansionary economic investment are already held by Treasury and there is no need to revert to a ‘borrow-to-build’ mindset.

However, this raises an even more obvious issue to consider: Even under the circumstance whereby Treasury provides the cash for nation-building infrastructure without a need to borrow, the economic use of this cash, as typically expressed in the purchase of non-financial assets, is still reflected in NFL/B. That is, NFL/B is not designed to reflect the source of funding, since the transactional use of this cash still reflects the financial resources the government absorbs from, or releases to, other sectors of the economy.

In summary, while NFL/B is a very useful economic measure of the fiscal impact that the government has on the broader economy, it is of limited use as a measure for the purposes of setting targets from a fiscal sustainability perspective because it does not distinguish between ‘debt sourced’ and ‘savings sourced’ capital, which is an important distinction for sustainability.

When considering whether NOB or GFS cash surplus/deficit is a more useful basis for setting a fiscal sustainability target for the medium-term fiscal framework, the following lessons from traditional accounting are useful:

- The income statement (a proxy relevant to NOB) is typically better structured to show how the revenue of the period aligns to the expenses of the period including consumption of assets. This matching principle typically provides a better measure of the period expenses incurred in relation to the period revenue received. In government vernacular, this means that a target related to NOB would help determine whether the government receives sufficient revenues to cover the full accrual costs of the expenses incurred in the provision of public goods and services.
- The statement of cash flows (a proxy relevant to GFS cash surplus/deficit) is a better measure of the true liquidity position of government. In government vernacular, a target related to GFS cash surplus/deficit would help determine whether the government receives sufficient cash receipts to cover the cash and capital payments incurred in the provision of public goods and services.

This implies that the remaining key fiscal sustainability targets can now be expressed as either:

1) **NOB should be at least zero or greater over the MTFF (or budget cycle).** This means that revenue over the MTFF must be sufficient to cover the expenses over the MTFF.
2) **GFS cash surplus/deficit should be at least zero or greater over the MTFF (or budget cycle).** This means that cash receipts over the MTFF must be sufficient to cover the cost of all operating cash payments and net investments of non-financial assets over the MTFF.

However, since GFS cash surplus/deficit is calculated using net operating cash plus net investment in non-financial assets, a similar issue arises when using this figure as a target as there is when using NFL/B. That is, the GFS cash surplus/deficit measure does not include any net cash flows from investments in financial assets. As such, any cash contributions made from government cash holdings are either irrelevant or not included for the purposes of this measure.

So while GFS cash surplus/deficit measures the cash consumed by the government in any one budget year, and is therefore still a very useful measure, it does not indicate the extent to which the deficit has been funded from existing financial assets or from an extension of government borrowings. In order to make this determination, additional cash information in the statement of cash flows needs to be referenced. For the purposes of setting fiscal sustainability targets, the source of the funding for any deficit is an important issue to consider. Deficit spending based around existing savings is a different sustainability consideration than deficit spending based around increasing debt.

> “For the purposes of setting fiscal sustainability targets, the source of the funding for any deficit is an important issue to consider.”

Consequently, this limits the usefulness of GFS cash surplus/deficit as a target measure for fiscal sustainability purposes, thus leaving only NOB as the ‘last man standing’.

Notwithstanding the limited usefulness of the GFS cash surplus/deficit measure as it relates to fiscal sustainability reporting, because a full statement of cash flows already exists in the various accrual accounting frameworks in place in G20 countries, there is the potential to modify this standard measure in order to make it more useful for fiscal sustainability framework purposes.

For example, a measure which fully included all operating cash and investing cash components could be used to set a target over the medium-term fiscal framework (such as being equal to zero over the MTFF in aggregate) in order to ensure that government borrowings are maintained at a specified limit. A gross debt measure as per the balance sheet is also capable of providing or facilitating such a target.

In discussing the benefits of setting a fiscal sustainability target related to NOB, it is useful to consider at the outset why the MTFF time frame of 3-5 years is an appropriate time frame over which to expect a balanced budget rule to apply in aggregate.

As previously noted, NOB encompasses the accrual measurement of a government’s transaction revenues and expenses. For most G20 governments, NOB still represents the greatest proportion of general government finances. Moreover, as a measure, it avoids the consideration of those capital investment components of government spending which can occur in uneven spending patterns throughout the MTFF or budget cycle. However, as an accrual measure, NOB does include the non-cash consumption of capital for the period in the traditional form of depreciation and amortization expenses.

Importantly, NOB will typically pick up the automatic stabilizer effects of declining tax revenues and increasing safety net expenditures as driven by the impact of a country’s economic fortunes and the existing fiscal policy mix.

Clearly, if the fiscal operations of government, as measured by NOB, are not able to adjust to a net balanced (aggregated) position over the MTFF or budget cycle, then a serious question arises as to the fiscal sustainability of the government’s fiscal settings. That is, missing such a target represents an obvious trigger point for action.

In summary, the key fiscal sustainability target for the MTFF (or budget cycle) should be:

NOB (aggregated) should be at least zero or in surplus over the MTFF (or budget cycle).

Important to note that this conclusion does not imply that other key fiscal aggregates discussed previously are irrelevant. Rather, it concludes that NOB is the most useful for fiscal sustainability target purposes over the budget cycle. Further, a zero result under such a target implies that the government's fiscal policy settings are appropriate over the medium-term fiscal framework. To the extent to which longer-term, or emerging fiscal sustainability measurement is captured in a government's other economic flows, NOB as a target will be incomplete. However, the extent of this incompleteness will vary somewhat from jurisdiction to jurisdiction.

> "... NOB is the most useful for fiscal sustainability target purposes over the budget cycle."

For those familiar with GFS accrual concepts, the use of NOB as a sustainability target measure should not come as a surprise seeing as GFS views NOB as a key tool for this purpose.

However, there remains one additional measure worth considering, which the preparers of full accrual accounts can provide and which can be readily used as a basis for target setting in a fiscal sustainability framework.

This measure relates to the change in net worth for the period. For the sake of convenience, this measure may also be termed the comprehensive result (CR), which includes the accrual measurement of revenues and expenses that arise from both transactions and other economic flows.

Appendix B includes an example of how this is calculated using the Australian standard AASB 1049, which is used for whole-of-government financial reporting across all government sectors and has been adopted by both the federal government and state/territory governments. Interestingly, AASB 1049 is considered a harmonized standard, using both the Australian equivalents to the International Financial Reporting Standards (IFRS) and GFS.

As noted above, the CR measure, which fully captures period revenues and expenses, not only reflects the total change in net worth for the period, it also provides a more complete picture of sustainability within the period. However, the match-to-market valuation of liabilities and assets, as required by GFS, can cause this type of measure to fluctuate somewhat from year to year. It is for this reason that some argue against its suitability within a fiscal sustainability framework.

Nonetheless, when considering a fiscal sustainability framework over the MTFF or budget cycle, the longer time frames mitigate most, if not all, of what is essentially a temporary or short-term failing. Clearly, if it is deemed necessary under GFS to bring market prices to the fore, then any measure which more completely captures the changing values of assets and liabilities is likely worthy of greater attention within a competent fiscal sustainability framework.

In summary, CR should also be considered as the basis for a fiscal target for the MTFF (or budget cycle) in addition to the use of NOB.

If a government wants to be diligent about ensuring that the sustainability of fiscal policy settings is as robust as possible (in other words, inclusive of a more complete funding of the true fiscal position) then:

CR (aggregated) should be at least zero or greater over the MTFF (or budget cycle).

A zero result under such a target implies that the government's net worth has not deteriorated over the MTFF (or budget cycle).

4. Economic cycle

While there is much room to debate what does or does not constitute the economic cycle, for the purposes of this paper, the economic cycle simply conveys a longer period of time than is encapsulated in the MTFF (or budget cycle) and over which the longer-run asset formation, capital investment and debt management activities of the general government sector can be more fully discussed.

In the context of a fiscal sustainability framework, discussion related to the economic cycle merely acknowledges that the processes of nation-building investment, large-scale capital developments and long-term debt management cannot readily be considered without also taking into account longer time frames and different key aggregates of the government's financial framework.

The emerging issue in some G20 countries, specifically the indebted and developed world economies, is the view that levels of economic growth and national productivity are unlikely to return to trend any time soon. At the same time, they are trying to come to grips with the dual challenge of managing structural shifts to their economies as they compete for economic growth with the developing G20 countries, while simultaneously putting in place deficit reduction strategies and addressing debt servicing and debt reduction demands sought by financial markets.

Ultimately, government finances are no different than those of corporations. The decision of how much to borrow and at what cost inevitably comes down to an assessment of financial risks. Moreover, as has been made apparent by the eurozone debt crisis, there is a limit to debt. Indeed, too much debt creates the circumstance whereby a government has no real capacity to provide further stimulus without risking more in terms of economic stability than is able to be realized by that stimulus. When this point is reached, any stimulus will risk becoming ineffectual.

When considering government debt or liabilities, there is typically a distinction made between interest bearing debt and other balance sheet liabilities that need to be met at some point in the future.

Moreover, a further consideration related to debt is the extent to which those liabilities are linked to either non-financial assets (as is often the case with infrastructure) or financial assets, such as investment portfolios aimed at meeting the costs of emerging pension liabilities.

While governments typically do not borrow on a project-by-project or asset-by-asset basis, the extent to which interest bearing liabilities (as a class of liability) align in terms of depth (size) and duration (time) to the quantum of non-financial assets is nonetheless reasonable to assess when considering fiscal sustainability.

Therefore, it is worthwhile to consider the fiscal sustainability measures related to debt, typically best gleaned from a balance sheet perspective.

What to measure: Balance sheet perspectives

There are a number of GFS fiscal measures that should be considered when developing a fiscal sustainability framework. Not surprisingly, there are also a variety of definitions in use across the G20 countries. Some countries use a concept of total debt liabilities, including pension scheme liabilities, whereas others use a narrower definition related to a borrowing or interest bearing debt measure. Others have definitions in between.

“While governments typically do not borrow on a project-by-project or asset-by-asset basis, the extent to which interest bearing liabilities (as a class of liability) align in terms of depth (size) and duration (time) to the quantum of non-financial assets is nonetheless reasonable to assess when considering fiscal sustainability.”

The following key balance sheet fiscal measures are based on the terms typically encountered in either the SNA and/or the GFS frameworks:

Gross debt

The GFS 2001 manual defines the gross debt position as the stock of all liabilities except shares and other equity and financial derivatives. In the IMF's 2011 guide titled *Public Sector Debt Statistics*, gross debt (variously called total gross debt, total debt or total debt liabilities) is defined as all liabilities that are debt instruments. Debt instruments are further defined as a financial claim that requires payment(s) of interest and/or principal by the debtor to the creditor at a date, or dates, in the future.

In summary, gross debt can be expressed as follows:

Gross debt is the stock of all debt instruments, whereby the present obligation exists to make future economic sacrifices in the form of either interest or principal.

Net debt

Strictly speaking, GFS does not define the concept of net debt, although a number of G20 countries publish net debt as a key aggregate. The typical practice is to define net debt as gross debt minus the key financial assets that relate directly to a debt instrument.

The IMF's *Public Sector Debt Statistics* highlights this emerging definitional trend related to gross debt and net debt. Table 5 reproduces their findings (from table 2.1 of chapter 2) with additional commentary.

Table 5: Calculation of net debt

Gross debt (GD) (a)	Financial asset corresponding to GD (b)	Net debt (ND) (c)=(a)-(b)	Comments
Special drawing rights (SDRs)	Special drawing rights (SDRs)		
Currency and deposits	Currency and deposits		
Debt securities	Debt securities		
Loans	Loans		
Insurance schemes	Insurance schemes		Not always included
Pension schemes	Pension schemes		Not always included
Standardized guarantee schemes	Standardized guarantee schemes		Not always included
Other accounts payable	Other accounts receivable		Not always included
Total gross debt	**Total financial assets corresponding to GD**	**Total net debt**	

Source: International Monetary Fund, *Public Sector Debt Statistics Guide for Compilers and Users* (2011).

In summary, net debt can be expressed as follows:

Net debt is equal to gross debt minus any corresponding financial assets to a debt instrument.

Net financial worth and net worth

In addition to gross debt, GFS also provides broader measures for liabilities and assets. In particular, two key measures that are often referenced are net worth and net financial worth.

Net financial worth is the total stock of financial assets minus liabilities and net worth is the total stock of assets minus liabilities.

What to target?

As suggested in previous discussion related to the budget cycle, an important element of a fiscal sustainability framework is that it must ultimately specify and make use of targets and, in particular, targets set around key fiscal aggregates readily compiled in government financial reports.

Of the four analytical measures outlined above, gross debt is the measure that is most widely used and accessible. Typically, it is the key measure referenced in any media coverage of debates, discussions and commentary related to government debt and sovereign debt risk. Notwithstanding the widespread accessibility and use of gross debt, the measure of net debt is still favored by some G20 countries, although it is not a fully prescribed GFS measure and, hence, not always publicly available for every G20 country.

As noted previously, one of the issues with gross debt and net debt is the variance in the country calculations of these measures. However, this may change in the future as evidenced by recently produced publications by the IMF and other key international stakeholders which seek to further refine the definition of these measures.

When considering the construction of an appropriate debt target, some of the key fiscal sustainability framework questions that typically arise include:

- Why does a government need to carry any debt instrument liabilities in the first place? That is, what is a legitimate reason for the creation of new debt instrument liabilities?
- If a government does have debt instrument liabilities, how much is too much? That is, under what circumstances does the creation of new debt instrument liabilities become too risky or unsustainable?

In practice, the general government sector typically only has two legitimate or sustainable reasons for needing to create new debt instrument liabilities:

1) When governments wish to embark on nation-building investment activities that require large amounts of capital investment over long periods of time.

This type of debt is called hard debt or interest bearing debt. Increasingly, many of these types of investments are structured as public-private partnership arrangements. Moreover, while governments rarely specifically borrow for an individual investment, it is nonetheless useful to consider how the stock of interest bearing debt aligns to the stock and age of the asset base for which the debt was originally incurred.

“Of the four analytical measures outlined above, gross debt is the measure that is most widely used and accessible. Typically, it is the key measure referenced in any media coverage of debates, discussions and commentary related to government debt and sovereign debt risk.”

The sustainability question here is the extent to which the length (time) and depth (size) of the debt financing mirror or reflect the life of the corresponding asset base.

2) When governments need to record any increase in insurance, pension or other scheme/policy arrangement whereby those liability obligations extend over long periods of time.

For example, many G20 countries have defined benefit pension fund schemes for their public sector employees, a type of debt instrument liability that is often referred to as soft debt or non-interest bearing debt. Clearly, fluctuations within the year of the actuarial estimate of these obligations will need time to be 'smoothed' throughout the economic cycle and eventually provided for. In such instances, one would typically expect that the fiscal sustainability policies of the government would be such that sufficient financial assets are set aside to help provide for any increase in the general level of the liability, albeit over a longer time frame.

While it is obvious that governments create debt instrument liabilities for reasons beyond the two stated above, this paper suggests that the reasons for such additional debt are related more to the shortfalls of fiscal policy settings of the past than any other factor. Simply put, had the fiscal policy settings of the MTFF (or budget cycle) been set within a sound fiscal sustainability context, then the existence of any residual debt liabilities on the balance sheet would have been minimal or non-existent.

The foregoing discussion suggests that useful fiscal sustainability targets should be established around the extent to which:

- the stock of interest bearing debt instrument liabilities are aligned to non-financial assets (capital formation) in terms of depth (size of the debt) and duration (time frames)
- the stock of non-interest bearing debt instrument liabilities are linked to corresponding financial assets set aside to meet the emerging liability over time.

Fiscal sustainability discussions related to government debt will also typically raise the issue of debt limits and debt-to-equity ratios, bearing in mind that the GFS surrogate for equity is net worth. This leads to a reasonable sustainability question for government: To what extent should national investment and capital formation be undertaken from debt financing or the existing savings on the government's balance sheet?

However, one of the challenges to having an informed discussion about the balance sheets of G20 countries is that not all G20 countries have balance sheets in the first place. Moreover, of those that do, the balance sheet 'story' is often not pretty. Most are in a negative net worth position. And while many of these instances are the result of a long fiscal history, they do go to the heart of the issue: Few governments truly focus on preparing budgets around concepts of restoring balance sheet health.

Not surprisingly, this has become an area of emerging interest among policy makers, particularly as sovereign debt has risen to unsustainable levels. These issues also demonstrate why the move to accrual accounting has become a greater focus for G20 countries seeking to provide a more informed perspective on the state of government finances.

Importantly, the benefits of accrual accounting in providing a richer and more informed view are strongly supported by key international stakeholder organizations such as the IMF, OECD, World Bank and Eurostat, as demonstrated by their jointly-sponsored SNA and GFS frameworks. Clearly, the intent is to ensure that balance sheets, for an increasing number of governments, are in place in the long run.

For the sake of simplicity, this paper has limited the expression of fiscal sustainability targets over the economic cycle to balance sheet measures. While relevant for most G20 countries, for others these measures will not be available until government balance sheets are introduced.

Consequently, an appropriate suite of fiscal sustainability targets for the economic cycle includes:

1) **For overall balance sheet stability, net worth is equal to zero or greater over the economic cycle.** This means that total assets either equal or exceed total liabilities over the period.

It is worth noting that this is the same as the comprehensive result (CR) rule of the budget cycle. However, while the time frames in a medium-term fiscal framework might make hitting the CR target a challenge, the longer time frames in the economic cycle provide greater flexibility for achieving targets.

2) **For overall debt limit management, gross debt is subject to an overall target upper limit (as measured on a basis of percentage of GDP) over the duration of the economic cycle.** This means that gross debt levels must remain within the limit for the period. Under this target, gross debt equates to the more complete and recent definitions of gross debt, which include all debt instrument liabilities including all pension fund and insurance obligations of the general government sector.

Each country should establish and agree to its own target within the context of existing balance sheet health and fiscal capacity. This paper suggests a target upper limit within the 25-45 percent of GDP range, but a simple rule of thumb is to set the maximum level of gross debt to be no more than 100 percent of general government revenue for the year. Some jurisdictions, such as the EU, use a 60 percent of GDP cap for gross debt and, if exceeded, require member countries to pay down debt over a 20-year time frame. Other G20 countries also use the concept of a debt limit, which typically requires legislature/parliament approval in order to be exceeded.

3) **For overall alignment of nation-building capital formation to interest bearing debt raisings, non-financial assets less debt instrument liabilities (interest bearing) is equal to zero or greater over the economic cycle.** This means that the stock of non-financial assets has grown at a commensurate rate compared to the stock of debt instrument liabilities (interest bearing) over the period. Further information about sustainability could also be gleaned by producing a maturity schedule of both the interest bearing debt and non-financial assets (for example, over 5-year intervals).

4) **For overall provisioning of the current obligations to non-interest bearing liabilities, debt instrument liabilities (non-interest bearing) less corresponding financial assets is equal to zero or improved over the economic cycle.** This means that the stock of debt instrument liabilities (non-interest bearing) has not grown over the period without a commensurate response in the stock of corresponding financial assets set aside to meet the obligation.

5) **For overall provisioning of financial assets against total gross debt, net debt is subject to an overall target upper limit (as measured on a basis of percentage of GDP) over the duration of the economic cycle.** This means that net debt levels must remain within the limit for the period.

Each country should establish and agree to its own target, with reference to the target set for gross debt above. This paper suggests that the target upper limit should otherwise require that there is no deterioration in the net debt position over the economic cycle.

5. Intergenerational cycle

In the context of this paper, the intergenerational cycle intends to capture the long-term implications of the government's current policy settings within the context of demographic change, sustaining and improving the country's national infrastructure (both hard and soft) and provisioning for long-term (50-year) shock events that may arise due to natural disasters and other unforeseen causes, thereby facilitating the government's role as being the 'insurer of last resort'.

In summary, the purpose of a fiscal sustainability framework discussion related to the intergenerational cycle (10+ years) is to facilitate consideration of the fiscal pressures brought on by:

- intergenerational change
- long-term infrastructure provisioning and replenishment
- the necessity to maintain sufficient fiscal capacity to absorb long-term (50-year) shock and risk events.

Unlike the budget and economic cycles, the consideration of these fiscal pressures is not readily obtained from either the key fiscal aggregates and financial reports routinely produced for the budget and forward estimate years or end of financial year reporting.

This difficulty arises because future tax revenues and future program expenditures are such that the government of the day is neither currently entitled to receive those tax revenues, nor is it currently obliged to make those program payments.

Consequently, such future obligations are not captured in the documentation typically produced under an MTFF regime or budget cycle or in the balance sheet of the general government. In recent years, G20 fiscal policy makers have typically addressed this challenge through a flow assessment, effectively extrapolating them out over the long time frames encompassed in the intergenerational cycle. Countries that have done the most in this area include Australia, Canada, the US and the UK.

Understandably, such modeling requires planners to make a range of assumptions, including:

- the current fiscal policy mix and settings will remain constant
- escalators for pensions, health, aged care and housing expenditures appropriately reflect increases in both price and demand
- escalators for major revenue streams are appropriately modeled using long-run assumptions regarding the performance of the economy, workforce participation rates and productivity.

“Unlike the budget and economic cycles, the consideration of (long-term) fiscal pressures is not readily obtained from either the key fiscal aggregates and financial reports routinely produced for the budget and forward estimate years or end of financial year reporting.”

In this way, a formal intergenerational report (IGR) detailing the results of this modeling can be developed to help both policy makers and the government of the day make appropriate adjustments in order to mitigate the downstream impacts on government finances. These adjustments can take various forms, including:

- undertaking changes to policy settings on expenditure programs (for example, extending retirement ages if population life expectancy rates are increasing or mandating national pension fund schemes to ensure that a greater proportion of the population will be self-funded in retirement)
- introducing arrangements that effectively encompass the 'health annuation' of citizens in order to better manage rising public health expenditures
- providing mechanisms to assist lower socioeconomic groups buy and maintain residential property in order to further minimize pressures on public housing
- introducing taxation reforms in order to minimize the relative erosion of the income tax base that results from generational aging
- reducing the levels of entitlement that are currently in place in order to better accommodate the fiscal capacity of the government to maintain priority safety nets over other program expenditures.

While the range and appropriateness of any particular fiscal policy shift will be dependent on country-specific circumstances, it is critically important that governments aim to ensure generational equity in the process of adjustment.

In this respect, the UK stands out as a best practice according to our research. Their IGR includes a table showing the relative intergenerational burden incurred at 5-year age intervals, a simple but effective measure of the spread of the intergenerational burden.

In summary, a best practice fiscal sustainability framework for the intergenerational cycle includes the routine preparation of an intergenerational report (IGR).

It must be noted that the term 'routine' implies both a periodic and consistent time frame for producing an intergenerational report. Some countries prepare such reports annually whereas others prepare them over a longer cycle of 5 years. Experience indicates that while these reports are not trivial to compile, once completed, the effort in updating them is less onerous. This suggests that more frequent updates may, in fact, be easier to manage than longer period updates. For example, while Australia has a legislative requirement to prepare an IGR every 5 years, they are currently preparing them every 2 years.

In addition to the preparation of an intergenerational report, better practice fiscal sustainability frameworks should also consider the long-term capital formation/ nation-building infrastructure requirements of the government through the preparation of a national infrastructure priority plan (NIPP).

The NIPP serves a number of purposes, including:

- attracting bipartisan political commitment and sustained fiscal support over the long term through the identification of a country's priority infrastructure needs, which is the plan's primary objective
- providing a mechanism for federated governments to harmonize state/provincial priorities within a national context
- facilitating effective stimulus more readily in times of economic downturn, enabling government spending to be efficiently directed towards 'shovel-ready' projects
- providing fiscal policy planners with a more informed view of the downstream fiscal needs of government when preparing the MTFF (or budget cycle) settings.

In summary, a best practice fiscal sustainability framework for the intergenerational cycle includes the routine preparation of a national infrastructure priority plan (NIPP).

The final element in the intergenerational cycle addresses the need to consider how best to protect government finances from shock events. As mentioned previously, shock events can occur in various guises including natural disasters, economic disruptions, financial crises, security events, social dislocation and environmental disasters. Moreover, their effects can be felt nationally, regionally or even globally.

Since most governments perform the role of the 'insurer of last resort', it is suggested that, in the context of a robust fiscal sustainability framework, governments need to do more in terms of thinking like an insurer.

In addressing these types of risks, governments have traditionally implemented a range of mechanisms such as central bank prudential supervision and financial system regulation, market regulation and insurance industry regulation, all of which play an important role. Moreover, these mechanisms typically operate through either national or international arrangements. Further, at the international level, key sovereign risks are also managed through organizations such as the IMF and World Bank.

Notwithstanding the appropriateness of these arrangements, there is still a need to ensure that the fiscal capacity of the government includes appropriate provisions to manage the residual risks not otherwise captured by the institutional and regulatory arrangements in place.

Ultimately, the level of provisioning for such shock events will depend on the geographical, political, economic, social and environmental circumstances of individual countries.

In summary, a best practice fiscal sustainability framework for the intergenerational cycle also includes the routine provisioning for shock events subject to the residual risks and long-run risk experience relative to each country. This 'insurer of last resort' (ILR) provision should be established and built up over the long term and used only for defined events and subject to appropriate legislative/parliamentary control.

6. Success factors and KPIs

Key fiscal sustainability framework objectives should be measured by:

- the attainment and maintenance of government AAA credit ratings
- the attainment of MTFF budget cycle fiscal sustainability targets related to NOB and/or CR
- the attainment of economic cycle fiscal sustainability targets related to:
  - net worth
  - gross debt and net debt
  - alignment of non-financial assets to interest bearing debt
  - alignment of financial assets to non-interest bearing debt.
- the attainment of intergenerational cycle fiscal sustainability initiatives, including:
  - the preparation of periodic intergenerational reports (IGR) to better prepare for the impacts of generational change and ensure intergenerational equity objectives
  - the preparation of a national infrastructure priority plan (NIPP) to guide long-term nation-building infrastructure
  - the establishment of an insurer of last resort (ILR) provision for the purpose of building up the fiscal capacity of government to absorb 50-year shock events.

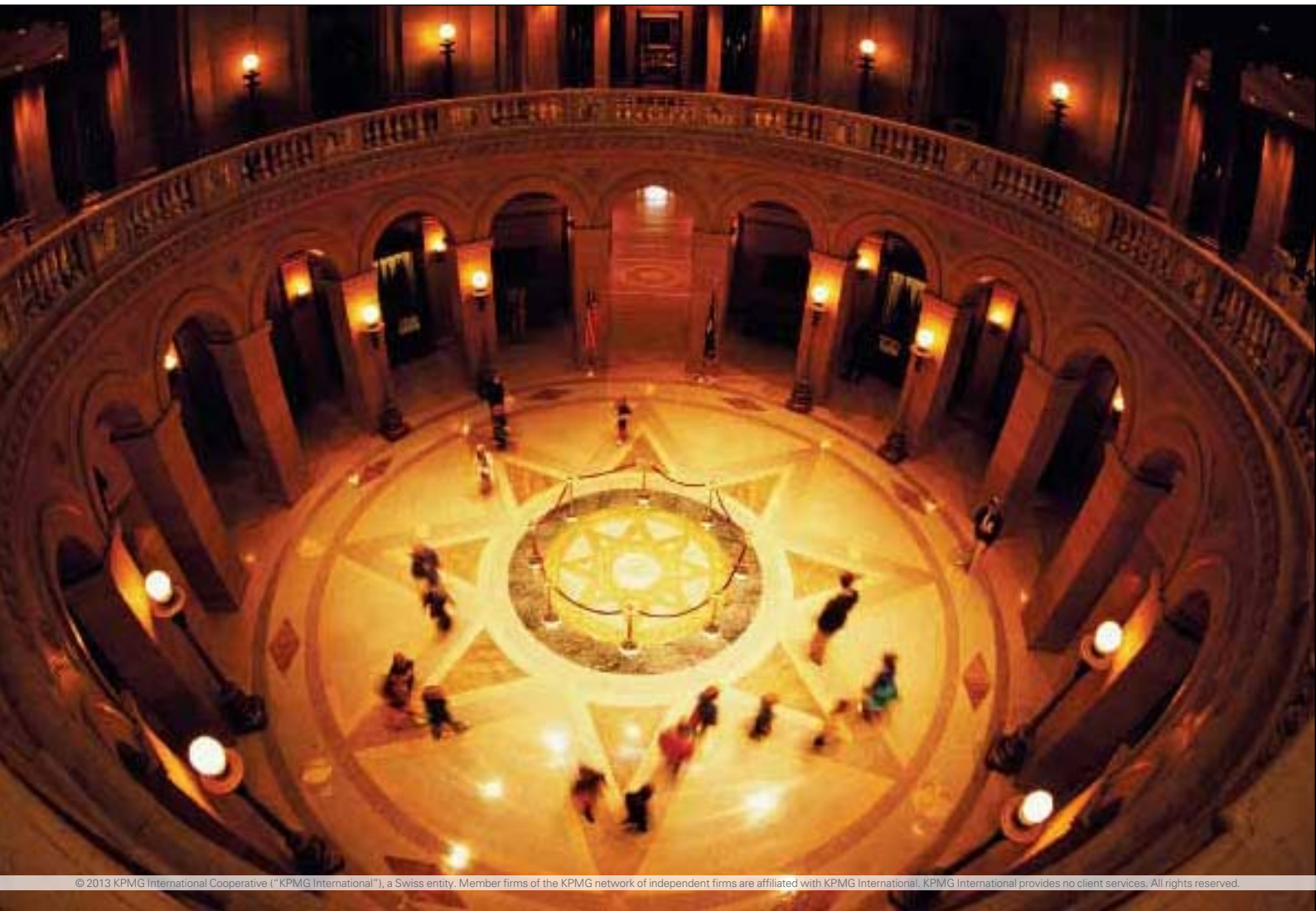


Table 6: Summary of a competent fiscal sustainability framework

Context:	To set the budget within the context of fiscal sustainability.
Objective:	To govern for the just and common good of current and future generations.
Defined:	A fiscal sustainability framework helps ensure the balance of fiscal policies is constructed in such a way that the objective can be maximized within the constraints of: • economic affordability • national security priorities • social cohesion imperatives for citizen access and equity • environmental sustainability.
Description:	**Budget cycle (1-5 years) or medium-term fiscal framework (MTFF)** Targets over the cycle are: • aggregated net operating balance (NOB) to be either balanced (= 0) or in surplus • aggregated comprehensive result (CR) to be either balanced (= 0) or in surplus. Important to note the following: • The net operating balance is the preferred MTFF fiscal sustainability measure, as it best equates to the accrual measure of the ordinary 'transaction' business of government. • The comprehensive result or change in net worth is the preferred, yet more challenging, MTFF fiscal sustainability measure, as it best equates to the full accrual measure of the period.
	Economic cycle (medium-term or 6+ years) Targets over the cycle are: • net worth at zero or greater over the cycle • gross debt and net debt meet target limits • alignment of non-financial assets to interest bearing debt • alignment of financial assets to non-interest bearing debt.
	Intergenerational cycle (long-term or 10+ years) Target is to address the fiscal pressures through: • the preparation of intergenerational reports (IGR) • the preparation of a national infrastructure priority plan (NIPP) • the establishment of an insurer of last resort (ILR) provision.
Above all, a leading practice fiscal sustainability framework should encompass the bipartisan commitment to sustain or improve government finances over the short, medium and long term.	
	Key fiscal sustainability framework objectives should be measureable by: • the attainment and maintenance of government AAA credit ratings • the attainment of MTFF budget cycle fiscal sustainability targets related to NOB and/or CR • the attainment of economic cycle fiscal sustainability targets related to: – net worth – gross debt and net debt – alignment of non-financial assets to interest bearing debt – alignment of financial assets to non-interest bearing debt. • the attainment of intergenerational cycle fiscal sustainability initiatives, including: – the preparation of periodic intergenerational reports – the preparation of a national infrastructure priority plan – the establishment of an insurer of last resort provision.

Source: KPMG International, 2013

Country profiles

Overview of key fiscal indicators

Table 7 and Figure 3 show the general government (GG) net fiscal lending/borrowing from 2000-15 of the 19 countries in the group of G20 countries studied in this paper. The 'thermal mapping' table highlights annual general government net fiscal lending/borrowing impacts.

Table 7: General government net fiscal lending/borrowing by G19 countries (as a percentage of GPD) from 2000-15

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
Argentina	-3.61	-6.02	-15.87	-4.32	-2.85	-1.56	-0.89	-2.08	-0.81	-3.62	-1.58	-3.29	-3.07	-2.16	-2.47	-0.81	2010
Australia	1.74	0.86	1.01	1.63	2.07	2.44	1.84	1.28	-0.80	-4.11	-4.77	-4.27	-2.48	-0.65	-0.26	0.19	2011
Brazil	-3.38	-2.60	-4.42	-5.20	-2.87	-3.53	-3.55	-2.69	-1.39	-3.08	-2.81	-2.61	-2.34	-2.39	-2.27	-2.31	2011
Canada	2.95	0.66	-0.09	-0.08	0.86	1.55	1.57	1.58	0.13	-4.89	-5.56	-4.55	-3.65	-2.92	-2.14	-1.46	2011
China	-3.27	-2.80	-2.95	-2.45	-1.49	-1.39	-0.68	0.90	-0.39	-3.09	-2.28	-1.24	-1.30	-0.97	-0.62	-0.14	2011
France	-1.52	-1.65	-3.28	-4.09	-3.62	-2.97	-2.37	-2.75	-3.35	-7.57	-7.09	-5.34	-4.56	-3.87	-3.05	-2.19	2010
Germany	1.32	-2.84	-3.73	-4.06	-3.80	-3.42	-1.61	0.24	-0.06	-3.21	-4.27	-1.05	-0.81	-0.56	-0.31	-0.23	2011
India	-10.01	-10.38	-10.12	-9.57	-7.63	-6.68	-5.48	-4.17	-7.19	-9.80	-9.17	-8.66	-8.32	-8.21	-8.12	-7.94	2010
Indonesia	-2.03	-2.70	-0.87	-1.37	-0.62	0.63	0.23	-1.03	0.00	-1.76	-1.21	-1.58	-0.97	-1.02	-0.98	-0.97	2010
Italy	-0.86	-3.08	-2.99	-3.53	-3.54	-4.35	-3.33	-1.48	-2.67	-5.37	-4.49	-3.95	-2.38	-1.55	-1.62	-1.46	2011
Japan	-7.55	-6.04	-7.71	-7.79	-5.95	-3.43	-3.65	-2.09	-4.11	-10.39	-9.36	-10.07	-9.99	-8.73	-7.87	-7.58	2010
Korea	4.38	2.72	3.64	1.71	0.10	0.91	1.14	2.32	1.64	0.02	1.65	2.32	2.38	2.83	2.83	2.80	2010
Mexico	-3.06	-3.17	-3.55	-2.25	-1.34	-1.38	-1.00	-1.18	-1.11	-4.67	-4.30	-3.42	-2.38	-2.15	-2.11	-2.06	2010
Russia	3.33	3.21	0.72	1.45	4.90	8.16	8.33	6.75	4.88	-6.31	-3.51	1.56	0.59	-0.34	-0.53	-1.58	2011
Saudi Arabia	6.17	3.23	-3.31	5.50	12.44	21.87	24.62	15.76	34.44	-4.64	6.55	15.23	16.58	10.09	6.65	3.17	2010
South Africa	-1.58	-1.16	-1.11	-1.86	-1.22	0.00	0.80	1.51	-0.46	-5.30	-4.85	-4.58	-4.27	-3.70	-3.11	-2.42	2010
Turkey	n/a	n/a	-13.91	-10.03	-3.93	-0.26	0.00	-1.65	-2.40	-5.61	-2.73	-0.27	-1.74	-1.98	-1.85	-1.63	2010
United Kingdom	1.35	0.59	-1.98	-3.31	-3.38	-3.34	-2.65	-2.69	-4.93	-10.38	-9.85	-8.66	-7.95	-6.57	-5.04	-3.65	2010
United States	n/a	-0.27	-3.89	-4.89	-4.39	-3.19	-2.04	-2.75	-6.69	-13.04	-10.49	-9.56	-8.08	-6.32	-4.93	-4.44	2010
Average:	-0.92	-1.75	-3.92	-2.87	-1.38	0.00	0.59	0.31	0.25	-5.62	-4.22	-2.84	-2.35	-2.17	-1.99	-1.83	
Total NFL/B pre-GFC:			-3.92	-2.87	-1.38	0.00	0.59	0.31	0.25								**-7.02**
Total NFL/B post-GFC:										-5.62	-4.22	-2.84	-2.35	-2.17	-1.99	-1.83	**-21.02**
Avg 7-yr NFL/B GFC-related 'effort':	When comparing the average levels of net fiscal lending/borrowing of G19 countries (in percentage of GDP terms), the GFC impact on general government expenditures equates to -14 percent GDP. This assessment has not been weighted against the relative size of these economies.																**-14.00**

GG net fiscal borrowing > –3.0% of GDP

GG net fiscal borrowing between –1.0% and –3.0% of GDP

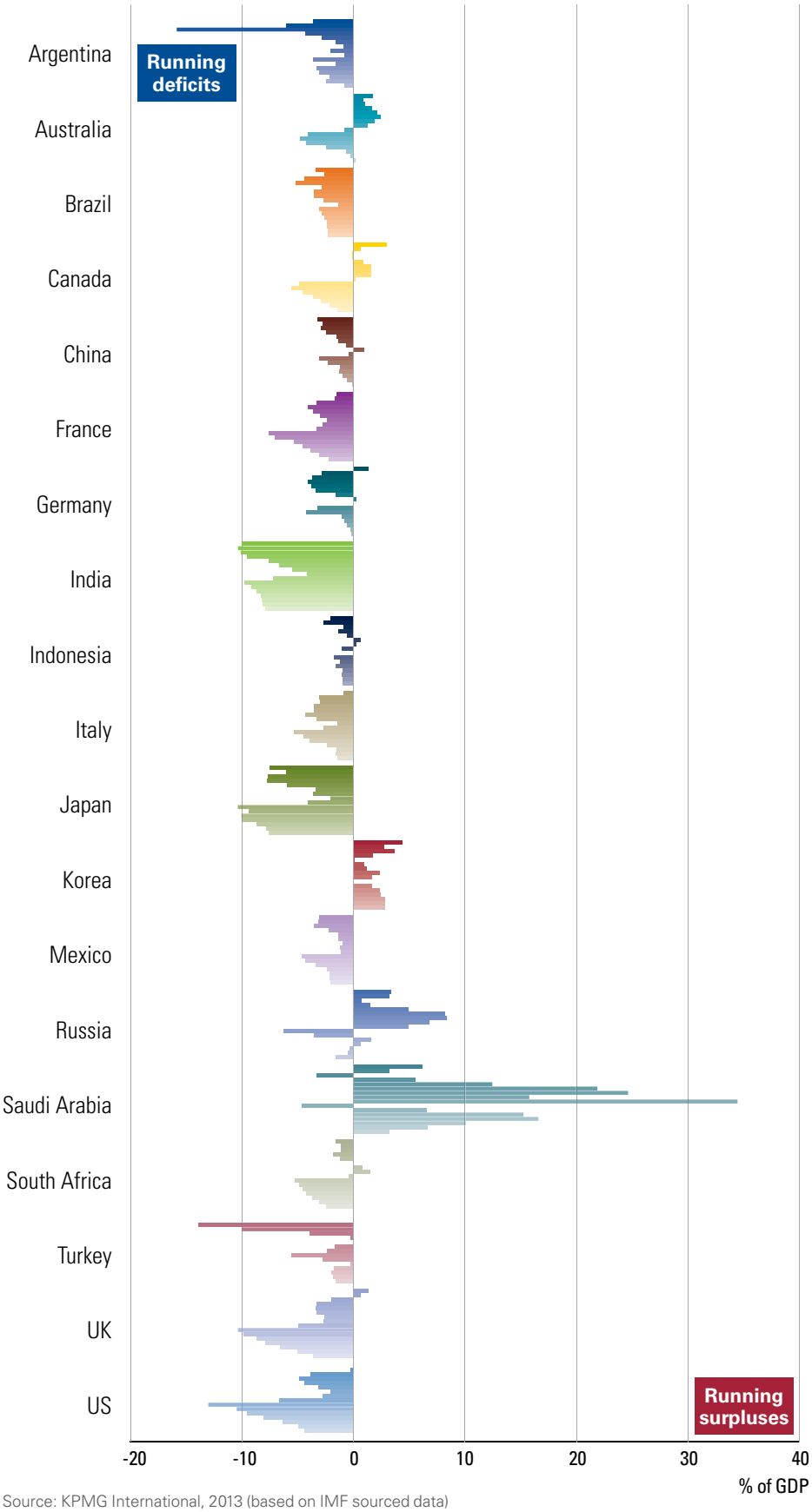
GG net fiscal lending/borrowing between +1.0% and –1.0% of GDP

GG net fiscal lending between +1.0% and +3.0% of GDP

GG net fiscal lending > +3.0% of GDP

Source: KPMG International, 2013 (based on IMF sourced data)

Figure 3: Cumulative effect of general government net fiscal lending/borrowing by G19 countries from 2000-15



Source: KPMG International, 2013 (based on IMF sourced data)

Table 8 and Figure 4 show the general government (GG) gross debt from 2000-15 for the same group of G20 countries. The 'thermal mapping' table shows the annual general government gross debt balance of these countries. The **orange** setting, as shown in the legend at the bottom of the table, has been set at 60 percent of GDP. This is the maximum level target for general government gross debt used by the European Union (EU).

Table 8: General government gross debt (as a percentage of GDP) by G19 countries from 2000-15

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
Argentina	45.00	53.69	164.97	139.46	127.03	87.13	76.46	67.10	58.52	58.70	49.10	44.20	43.27	41.91	41.61	40.06	2010
Australia	19.53	17.14	15.08	13.23	11.97	10.92	10.01	9.71	11.78	16.87	20.41	22.86	24.02	23.26	22.07	19.65	2011
Brazil	66.65	70.24	79.80	74.78	70.76	69.17	66.68	65.19	63.54	66.92	65.15	66.18	65.10	63.12	61.45	59.88	2011
Canada	82.13	82.66	80.55	76.56	72.60	71.61	70.26	66.52	71.08	83.59	85.06	84.95	84.68	81.96	80.42	78.77	2011
China	16.45	17.71	18.94	19.25	18.54	17.64	16.19	19.59	16.96	17.67	33.54	25.84	22.03	19.38	17.09	14.84	2011
France	57.35	56.91	59.00	63.15	65.14	66.74	63.90	64.20	68.27	78.99	82.39	86.26	89.02	90.75	90.64	89.61	2010
Germany	60.18	59.14	60.75	64.43	66.20	68.51	67.92	65.20	66.70	74.42	83.21	81.51	78.87	77.45	75.84	74.39	2011
India	72.73	77.85	82.20	84.30	84.06	81.76	78.49	75.44	74.72	74.97	69.43	68.05	67.57	66.77	66.24	65.81	2010
Indonesia	95.10	80.16	67.80	60.52	55.83	46.35	38.99	35.05	33.24	28.64	27.38	25.03	23.23	21.05	19.18	17.63	2010
Italy	108.51	108.17	105.15	103.91	103.44	105.43	106.10	103.08	105.81	116.06	118.65	120.11	123.36	123.80	123.40	122.26	2011
Japan	140.15	153.64	163.99	169.57	180.66	186.44	186.00	183.01	191.81	210.25	215.30	229.77	235.83	241.15	245.61	249.74	2010
Korea	18.02	18.70	18.56	21.62	24.63	28.66	31.12	30.66	30.11	33.77	33.43	34.14	32.88	30.83	28.71	26.74	2010
Mexico	42.58	41.97	45.69	45.58	41.42	39.84	38.35	37.83	43.11	44.58	42.87	43.81	42.85	42.95	42.95	43.06	2010
Russia	59.86	47.61	40.31	30.36	22.32	14.24	9.05	8.51	7.88	10.96	11.69	9.60	8.37	7.91	9.02	9.74	2011
Saudi Arabia	87.18	93.70	96.89	82.03	65.04	38.87	27.30	18.50	13.16	15.94	9.88	7.52	5.94	5.21	4.56	3.93	2010
South Africa	43.32	43.49	36.95	36.91	35.88	34.62	32.61	28.29	27.36	31.53	35.26	38.77	39.98	40.80	41.50	40.66	2010
Turkey	51.56	77.94	74.00	67.70	59.61	52.71	46.52	39.92	40.02	46.12	42.21	39.44	36.04	34.55	33.52	32.81	2010
United Kingdom	40.88	37.71	37.24	38.56	40.25	42.07	43.12	43.91	52.47	68.37	75.12	82.50	88.37	91.37	92.79	92.24	2010
United States	54.84	54.75	57.12	60.43	68.27	67.87	66.63	67.16	76.14	89.88	98.52	102.94	106.60	110.17	111.90	112.48	2010
Average:	61.16	62.80	68.68	65.91	63.88	59.50	56.61	54.15	55.40	61.49	63.08	63.87	64.11	63.91	63.60	62.86	

GG gross debt >= 60% of GDP

GG gross debt is between 40% and 60% of GDP

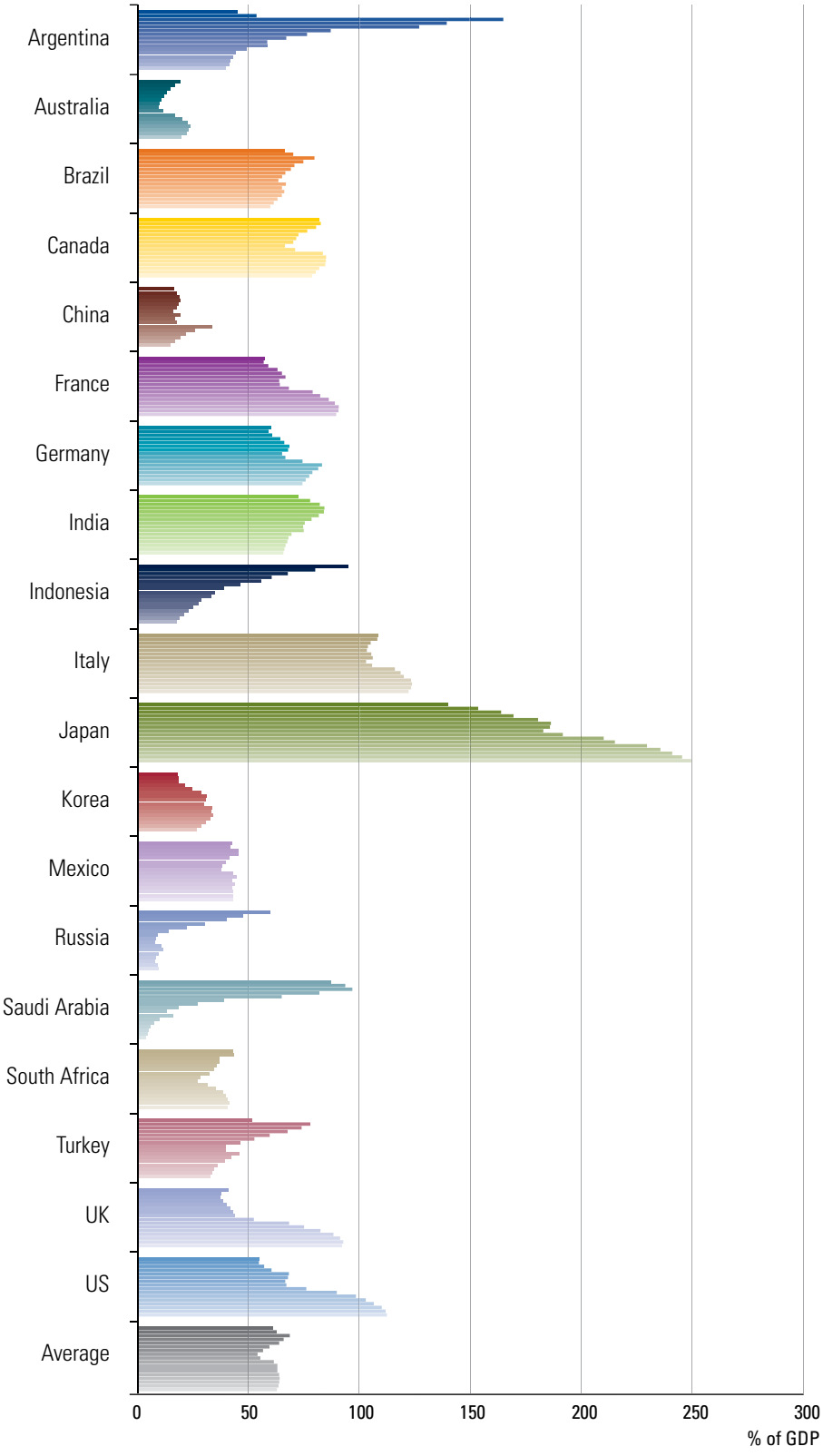
GG gross debt is between 20% and 40% of GDP

GG gross debt is between 10% and 20% of GDP

GG gross debt is <10% of GDP

Source: KPMG International, 2013 (based on IMF sourced data)

Figure 4: Cumulative effect of general government gross debt by G19 countries from 2000-15



Source: KPMG International, 2013 (based on IMF sourced data)

Table 9 and Figure 5 show the 2015 estimate (in USD) of general government (GG) gross debt for the same group of G20 countries. The table is sorted by size of debt, from largest to smallest.

Table 9: 2015 estimate (in USD) of general government gross debt for G19 countries as sorted from largest to smallest

	(a)	(b)	(c)	(d) = (a) * (b)	% of total (d)	Select developed countries (highest indebtedness)		All developing		All developed	
Country	**GG gross debt as a % of GDP**	**Country GDP in USD (billions)**	**% of world GDP**	**GG gross debt in USD (billions)**	**GG gross debt as a % of total**	**GG gross debt as a % of total**	**% of world GDP**	**GG gross debt as a % of total**	**% of world GDP**	**GG gross debt as a % of total**	**% of world GDP**
United States	112.48%	$17,784	18.34%	$20,003	35.91%	35.91%	18.34%			35.91%	18.34%
Japan	249.74%	$6,372	5.29%	$15,914	28.57%	28.57%	5.29%			28.57%	5.29%
Germany	74.39%	$3,741	3.62%	$2,783	5.00%	5.00%	3.62%			5.00%	3.62%
France	89.61%	$2,984	2.59%	$2,674	4.80%	4.80%	2.59%			4.80%	2.59%
Italy	122.26%	$2,158	2.05%	$2,638	4.74%	4.74%	2.05%			4.74%	2.05%
United Kingdom	92.24%	$2,851	2.69%	$2,630	4.72%	4.72%	2.69%			4.72%	2.69%
Brazil	59.88%	$2,872	2.89%	$1,720	3.09%			3.09%	2.89%		
Canada	78.77%	$2,001	1.68%	$1,576	2.83%	2.83%	1.68%			2.83%	1.68%
China	14.84%	$10,581	16.35%	$1,570	2.82%			2.82%	16.35%		
India	65.81%	$2,384	6.21%	$1,569	2.82%			2.82%	6.21%		
Mexico	43.06%	$1,416	2.09%	$610	1.09%			1.09%	2.09%		
Korea	26.74%	$1,430	1.97%	$382	0.69%					0.69%	1.97%
Australia	19.65%	$1,773	1.14%	$348	0.63%					0.63%	1.14%
Turkey	32.81%	$1,044	1.33%	$343	0.62%			0.62%	1.33%		
Russia	9.74%	$2,659	3.03%	$259	0.47%					0.47%	3.03%
Indonesia	17.63%	$1,394	1.54%	$246	0.44%			0.44%	1.54%		
Argentina	40.06%	$541	0.91%	$217	0.39%			0.39%	0.91%		
South Africa	40.66%	$483	0.69%	$196	0.35%			0.35%	0.69%		
Saudi Arabia	3.93%	$703	0.89%	$28	0.05%					0.05%	0.89%
	62.86%	**$65,172**	**75.30%**	**$55,705**	**100.00%**	**86.56%**	**36.27%**	**11.61%**	**32.01%**	**88.39%**	**43.29%**

Source: KPMG International, 2013 (based on IMF sourced data)

Notes

(1) **62.86 percent** is the 2015 estimated average general government gross debt (as a percentage of GDP) for the G19 countries studied in this paper.

(2) **$65,172** is the 2015 estimated GDP in USD (billions) represented by the G19 countries studied in this paper.

(3) **75.30 percent** is the 2015 estimated proportion of world GDP represented by the G19 countries studied in this paper. **$86,548** is the 2015 estimated size of total world GDP as extrapolated from the figures provided at (2) and (3).

(4) It is estimated that by 2015, **$55,705 USD** (billions) in general government gross debt will be held by the G19 countries studied in this paper.

(5) This level of gross debt represents **85.47 percent** of GDP as measured on a weighted basis for the G19 countries studied in this paper.

(6) This level of gross debt represents **64.36 percent** of world GDP as measured on a weighted basis for the G19 countries studied in this paper.

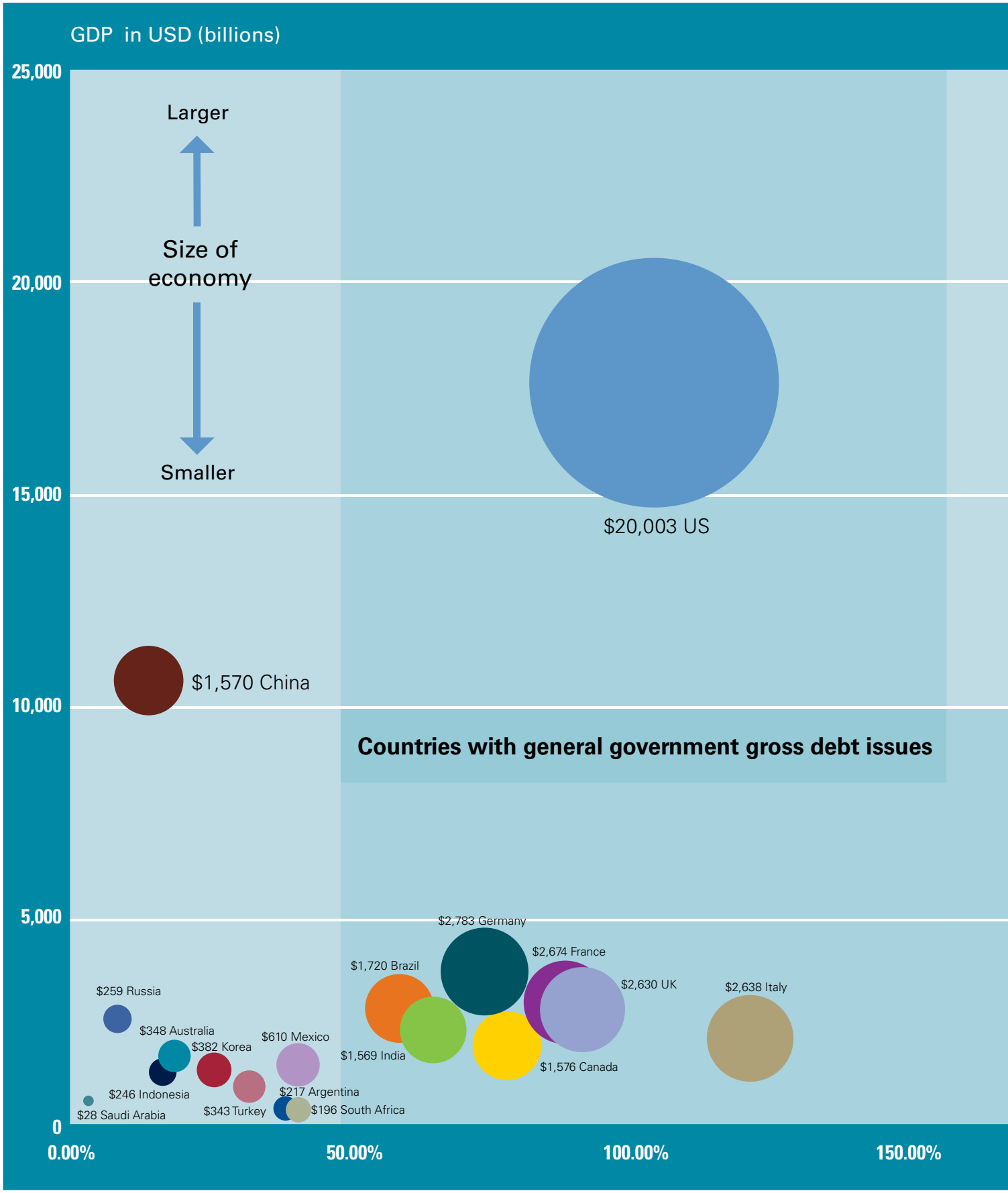
(7) The top seven indebted **developed countries** carry **86.56 percent** of the total general government gross debt of these G19 countries.

(8) Yet they represent, in percentage of GDP terms, only **36.27 percent** of world GDP.

(9) This compares with the eight **developing countries** group, which carries only **11.61 percent** of the total general government gross debt of these G19 countries.

(10) Yet they represent, in percentage of GDP terms, **32.01 percent** of world GDP.

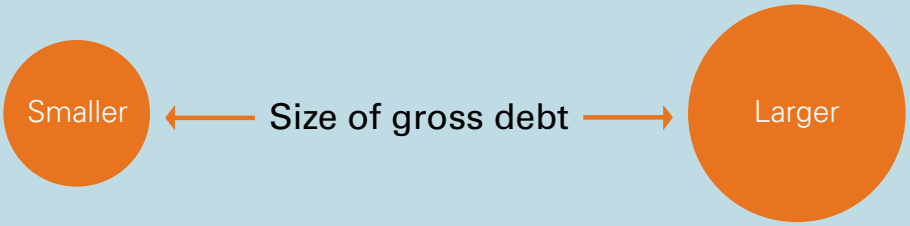
Figure 5: 2015 estimates (in USD) of general government gross debt and GDP for G19 countries

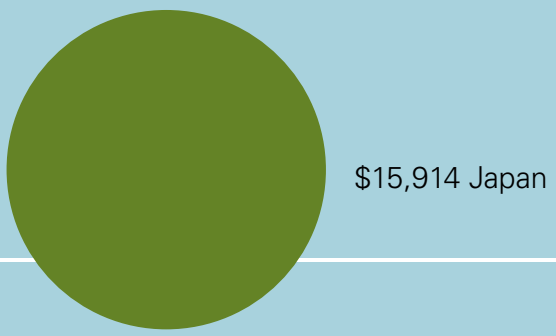


Source: KPMG International, 2013 (based on IMF sourced data)

The nine countries in the shaded area of this chart represent over 45% of world GDP.

(Note: This excludes EU countries that are not represented in the G20 in their own right, such as Spain, Greece, Portugal, Ireland and others)





Smaller ← General government gross debt (impact expressed as a percentage of GDP) → Larger

200.00% 250.00% 300.00%

Country profile:

Argentina

Introduction

Argentina is a federal democratic republic. Under its current constitution, last reformed in 1994, the president is both head of state and head of the government. Executive power is exercised by the president and both the president and vice president are elected by national elections. The legislative branch is comprised of a bicameral Congress which has a 72-member Senate and a 257-member Chamber of Deputies. There are 23 provinces and one autonomous district (federal capital) in Argentina.

Each of the 23 provinces and the Autonomous City of Buenos Aires has its own constitutions and governments, albeit they must comply first and foremost with national constitutional arrangements.

Budget cycle

Fiscal trends

Budget cycle data shows that since the debt default crisis of late 2001, Argentina has maintained net fiscal borrowing in the range of -4.32 percent of GDP (2003) and -0.89 percent of GDP (2006). The forward estimate years 2011-15 show a continuing deficit-reduction effect with general government net fiscal borrowing falling from an estimated -3.29 percent of GDP (2011) to -0.81 percent of GDP (2015) as the economy is managed through the budget cycle.

Fiscal policy and strategy

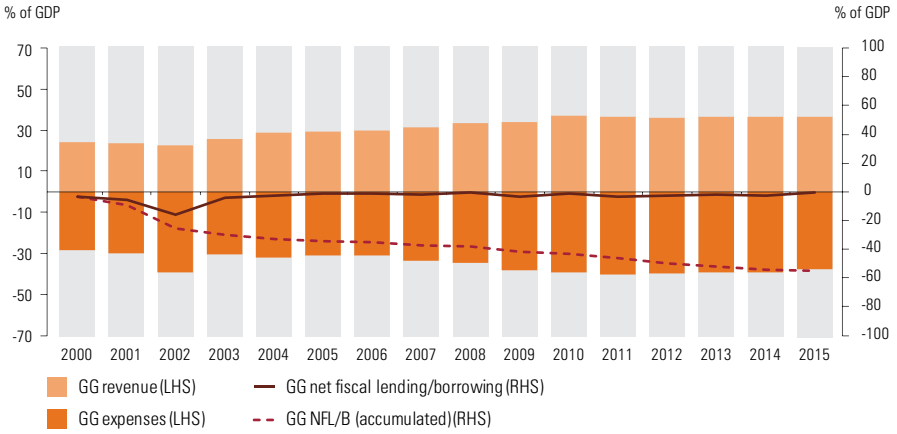
In recent G20 communiqués, Argentina has stated that its key fiscal policy objective is to ensure a primary fiscal result that is aligned to the objective of decreasing the government gross debt-to-GDP ratio. It is anticipated that such a policy posture would at least be in place for the 2011-15 time frame.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	24.61	23.64	23.04	26.02	29.03	29.42	29.91	31.52	33.40	34.29	37.20	36.68	36.36	36.74	36.76	36.77	2010
GG expenses (LHS)	-28.21	-29.66	-38.90	-30.34	-31.88	-30.98	-30.79	-33.60	-34.21	-37.92	-38.78	-39.97	-39.43	-38.90	-39.23	-37.58	2010
Net GGR/E	-3.61	-6.02	-15.87	-4.32	-2.85	-1.56	-0.89	-2.08	-0.81	-3.62	-1.58	-3.29	-3.07	-2.16	-2.47	-0.81	
GG NFL/B (RHS)	-3.61	-6.02	-15.87	-4.32	-2.85	-1.56	-0.89	-2.08	-0.81	-3.62	-1.58	-3.29	-3.07	-2.16	-2.47	-0.81	2010
GG NFL/B (A) (RHS)	-3.61	-9.63	-25.50	-29.82	-32.67	-34.23	-35.12	-37.20	-38.01	-41.63	-43.21	-46.50	-49.57	-51.73	-54.20	-55.01	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Following the country's debt default period of 2001-02 when general government gross debt peaked at 164.97 percent of GDP, Argentina has sought to reduce government debt (in percentage of GDP terms) and reconnect itself with the world's capital markets, a process which is still continuing. Economic cycle data shows that since the default period, Argentina has reduced the level of gross debt to 49.1 percent of GDP in 2010. Over the forward estimates period, Argentina is targeting to reduce general government gross debt from an estimated 44.2 percent of GDP (2011) to 40.06 percent of GDP (2015). Net debt figures were not available.

Fiscal policy and strategy

Argentina put in place a *Fiscal Responsibility Law* in 1999 and a new updated law in 2004 which sought to extend fiscal rules to provincial level governments, including the requirement to put in place a 3-year rolling budget plan.

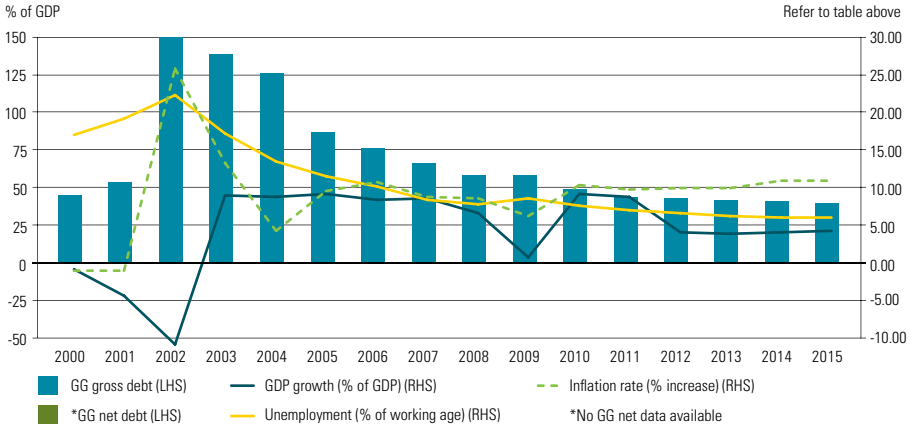
The fiscal trends summarized above are consistent with the government's stated fiscal policy objective of decreasing the government gross debt-to-GDP ratio. As a policy focus, gross debt appears to have taken priority over addressing inflation. Indeed, inflation remains high compared to other G19 countries in this study, with the period from 2010-15 showing that inflation is estimated to remain within the band of 9.78 percent to 11.0 percent.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	45.00	53.69	164.97	139.46	127.03	87.13	76.46	67.10	58.52	58.70	49.10	44.20	43.27	41.91	41.61	40.06	2010
*GG net debt (LHS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GDP growth (% of GDP) (RHS)	-0.79	-4.41	-10.90	8.96	8.91	9.18	8.47	8.65	6.76	0.85	9.16	8.87	4.22	3.98	4.22	4.29	2010
Unemployment (% of WA) (RHS)	17.13	19.21	22.45	17.25	13.63	11.58	10.18	8.48	7.88	8.68	7.75	7.15	6.66	6.32	6.16	6.00	2010
IR (% increase) (RHS)	-0.94	-1.07	25.87	13.44	4.42	9.64	10.90	8.83	8.59	6.27	10.46	9.78	9.95	9.94	10.99	11.00	2010

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 16.4 percent to 19.6 percent. This rise in the ratio over this time frame is considered manageable. However, over the long term, the growth of pension entitlement spending is estimated to increase by 4.5 percent of GDP by 2050 (over 2010 levels). This level of impact is not dissimilar to health spending increases over the same time frame.

Fiscal policy and strategy

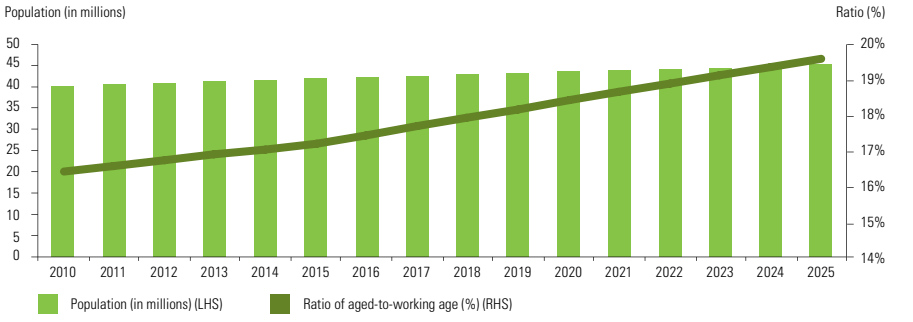
Argentina's overarching fiscal challenge regarding pension entitlement spending growth centers on its relative overall percentage of primary government spending. Long-term risk pressures include the extent to which entitlement coverage may increase over time and the extent to which low labor force participation rates occur in future decades. As such, the extent to which these risks emerge will determine the selection of future fiscal policies needed to address their impact.

National population and working age profile

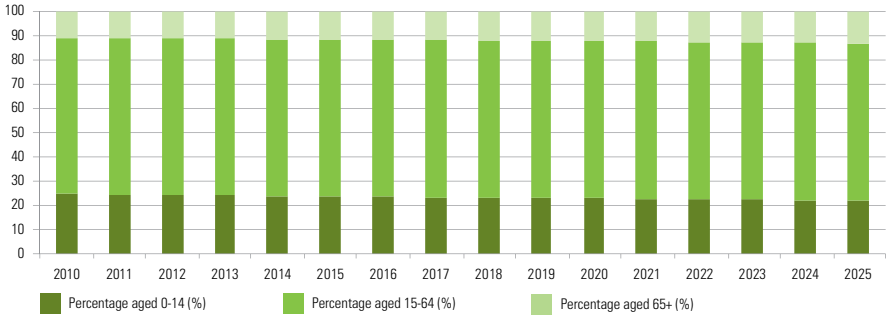
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	40.52	40.87	41.22	41.57	41.93	42.29	42.62	42.95	43.29	43.63	43.97	44.27	44.58	44.88	45.19	45.50	(in millions)
Aged 0-14 (%)	24.9%	24.7%	24.5%	24.2%	24.0%	23.8%	23.6%	23.5%	23.3%	23.2%	23.0%	22.8%	22.6%	22.4%	22.2%	22.0%	
Aged 15-64 (%)	64.5%	64.6%	64.7%	64.8%	64.9%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.1%	65.1%	65.2%	65.2%	
Aged 65+ (%)	10.6%	10.7%	10.8%	11.0%	11.1%	11.2%	11.4%	11.5%	11.7%	11.8%	12.0%	12.2%	12.3%	12.5%	12.6%	12.8%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	16.4%	16.6%	16.8%	16.9%	17.1%	17.2%	17.5%	17.7%	18.0%	18.2%	18.5%	18.7%	18.9%	19.2%	19.4%	19.6%	19.5%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Australia

Introduction

Australia operates under a federal system of government comprising a federal (central) government and a number of state and territory governments. By constitutional convention, the majority of taxes are levied and collected by the federal government. Each government jurisdiction has a parliament, operates their own treasury and produces an annual budget (including forward estimates) for the purposes of funding government goods and services.

Nationally, various mechanisms exist to facilitate horizontal and vertical fiscal integration and cooperation between governments, such as the Commonwealth Grants Commission, the Council of Australian Governments (COAG) and the Australian Loan Council. The Grants Commission performs a horizontal fiscal integration role between states by balancing transfer payments, state revenues and needs. The Loan Council is long-standing (circa 1927) and its role has been subject to change over time. It currently performs a coordination, oversight and advisory role regarding borrowing by federal, state and territory governments.

Budget cycle

Fiscal trends

Budget cycle data shows that Australia has maintained net fiscal lending/borrowing at sustainable levels. The years 2000 through to the onset of the GFC (2007) show moderate surpluses. The years 2008-15 show a firm deficit-driven stimulus effect, followed by an estimated return to surplus as the economy is managed through the budget cycle.

Fiscal policy and strategy

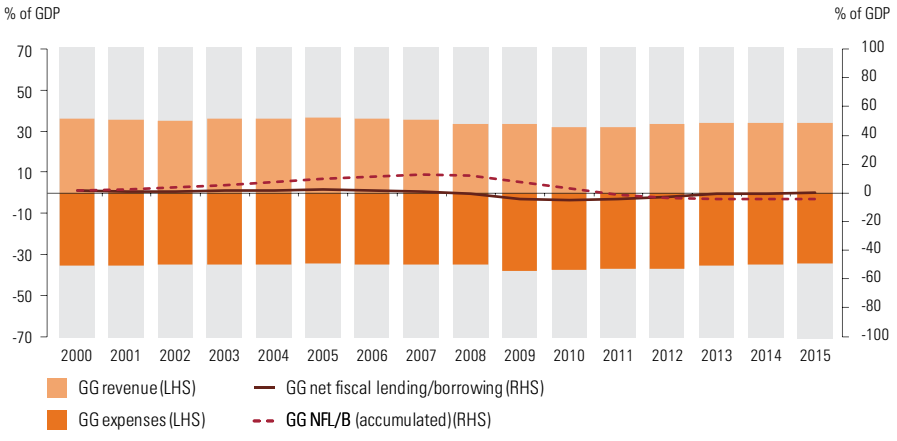
The federal government has a policy target to return the budget to surplus in 2012-13 with all Australian governments (in aggregate) estimated to achieve a return to surplus by 2015.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	36.42	35.63	35.38	36.20	36.37	36.58	36.47	35.53	33.69	33.47	32.00	32.33	33.86	34.07	33.96	34.00	2011
GG expenses (LHS)	-34.69	-34.77	-34.38	-34.57	-34.30	-34.14	-34.64	-34.24	-34.49	-37.58	-36.77	-36.60	-36.33	-34.71	-34.21	-33.81	2011
Net GGR/E	1.74	0.86	1.01	1.63	2.07	2.44	1.84	1.29	-0.80	-4.11	-4.77	-4.27	-2.48	-0.64	-0.26	0.19	
GG NFL/B (RHS)	1.74	0.86	1.01	1.63	2.07	2.44	1.84	1.28	-0.80	-4.11	-4.77	-4.27	-2.48	-0.65	-0.26	0.19	2011
GG NFL/B (A) (RHS)	1.74	2.60	3.61	5.24	7.31	9.75	11.59	12.87	12.08	7.97	3.20	-1.07	-3.55	-4.19	-4.45	-4.26	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
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NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Australia has (and is estimated to maintain) a level of gross debt below 25 percent of GDP and a level of net debt below 10 percent of GDP throughout the entire period under review. On a percentage of GDP basis, the levels of gross debt and net debt are tracking to be at the same level in 2015 as they were in 2000.

Fiscal policy and strategy

In 1998, the federal government introduced the *Charter of Budget Honesty Act* which, inter alia, set out the agreed principles of sound fiscal management. These principles target medium-term fiscal sustainability and require the government of the day to:

- manage financial risks prudently, having regard to economic circumstances, including by maintaining general government debt at prudent levels
- ensure that its fiscal policy contributes to both achieving adequate national savings and moderating cyclical fluctuations in economic activity, taking into account national economic risks and the impact of those risks on the government's fiscal position
- pursue spending and taxing policies that are consistent with a reasonable degree of stability and predictability in the level of the tax burden
- maintain the integrity of the tax system
- ensure that its policy decisions consider their financial effects on future generations.

Financial risks are defined to include excessive net debt, erosion of the tax base, commercial risks arising from public enterprises and risks arising from the management of assets and liabilities.

Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 19.8 percent to 28.5 percent.

Fiscal policy and strategy

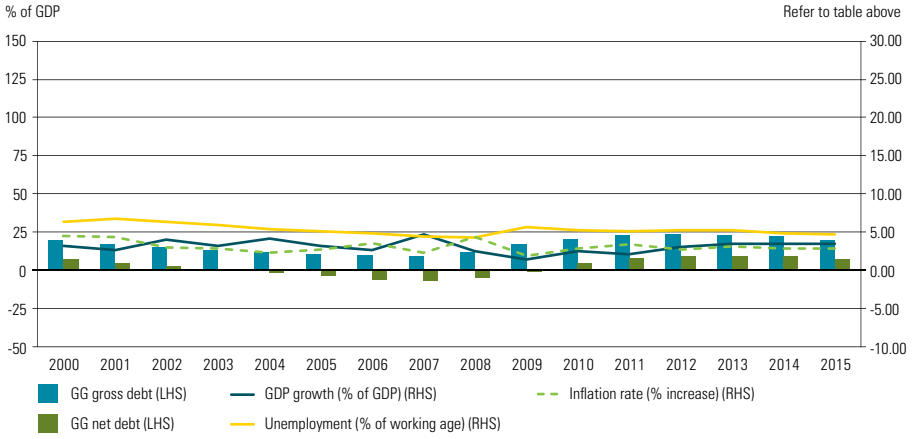
The *Charter of Budget Honesty Act* includes the economic considerations of future generations as a principle element of a fiscal sustainability policy framework. The Charter also requires that the government of the day produce an intergenerational report (IGR) every 5 years. Currently, this report is being updated every 2 years. Earlier versions of this report estimated that the impact of intergenerational aging would rise to 5 percent of GDP by 2042. Policy adjustments and revised estimates place this rising fiscal impact at approximately 3.75 percent per year by 2050, although this projected impact is continually being monitored. Productivity growth is viewed as becoming an increasing challenge to the Australian economy over the medium to long term. Under the 'population, participation and productivity' (or 3Ps) model, GDP growth will be heavily reliant on productivity growth.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	19.53	17.14	15.08	13.23	11.97	10.92	10.01	9.71	11.78	16.87	20.41	22.86	24.02	23.26	22.07	19.65	2011
GG net debt (LHS)	7.14	4.69	2.77	0.75	-1.24	-3.82	-6.35	-7.29	-5.29	-0.56	4.39	7.81	9.54	9.62	9.21	7.52	2011
GDP growth (% of GDP) (RHS)	3.15	2.61	3.94	3.14	4.08	3.11	2.68	4.68	2.50	1.37	2.54	2.04	3.03	3.50	3.50	3.51	2011
Unemployment (% of WA) (RHS)	6.27	6.77	6.38	5.94	5.39	5.06	4.80	4.37	4.27	5.59	5.23	5.10	5.19	5.20	4.83	4.70	2011
IR (% increase) (RHS)	4.48	4.38	3.00	2.77	2.34	2.67	3.54	2.33	4.35	1.82	2.85	3.39	2.69	3.05	2.77	2.86	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15

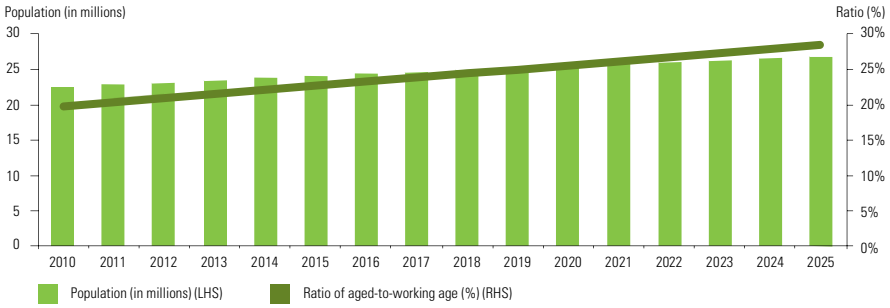


National population and working age profile

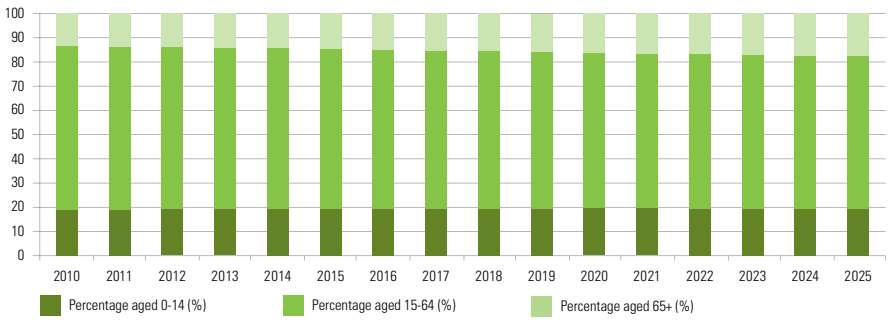
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	22.45	22.75	23.05	23.36	23.67	23.98	24.26	24.55	24.84	25.13	25.43	25.69	25.96	26.22	26.49	26.77	(in millions)
Aged 0-14 (%)	18.9%	18.9%	19.0%	19.0%	19.1%	19.1%	19.2%	19.2%	19.3%	19.3%	19.4%	19.4%	19.3%	19.3%	19.2%	19.2%	
Aged 15-64 (%)	67.7%	67.3%	67.0%	66.6%	66.3%	65.9%	65.6%	65.2%	64.9%	64.5%	64.2%	63.9%	63.7%	63.4%	63.2%	62.9%	
Aged 65+ (%)	13.4%	13.7%	14.0%	14.4%	14.7%	15.0%	15.3%	15.6%	15.8%	16.1%	16.4%	16.7%	17.0%	17.3%	17.6%	17.9%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	19.8%	20.4%	21.0%	21.6%	22.2%	22.8%	23.3%	23.9%	24.4%	25.0%	25.5%	26.1%	26.7%	27.3%	27.9%	28.5%	43.8%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Brazil

Introduction

Brazil is a federal republic comprising a federal government, 26 state governments (broken down into 5,565 municipalities) and one federal district (Brasilia). The president of Brazil is both head of state and head of the government. The federal (central) government is comprised of executive, legislative and judicial branches. The legislature is bicameral in nature, comprising a Federal Senate and a Chamber of Deputies. Brazil's current constitution, ratified in 1988, has broad reach in terms of setting budget process rights for the National Congress, prescribing administrative arrangements for states and covering off areas such as taxes and social security. Under these constitutional arrangements, the states operate autonomously with their own constitutions, inclusive of a unicameral legislature with executive power being exercised by a governor who is elected for a 4-year term.

Budget cycle

Fiscal trends

Budget cycle data shows that Brazil has maintained net fiscal lending/borrowing at sustainable levels for a developing economy. The years 2000 through to the onset of the GFC (2007) show moderate deficits of between -2.60 percent of GDP (2001) and -5.2 percent of GDP (2003). The years 2008-15 show a continuing moderate deficit-driven strategy of between -1.39 percent of GDP (2008) and -3.08 percent of GDP (2009) as the economy is managed through the budget cycle.

Fiscal policy and strategy

Article 165 of the constitution provides that 'Laws of the initiative of the Executive Power' establish the pluriannual plan, the budgetary directives and the annual budgets. The Planning, Public Budget and Control Combined Committee (CMO) of the National Congress is responsible for formulating and reviewing budget laws. It also exercises the budget execution follow-up and control. The CMO is composed of 40 senior members, 30 from the Chamber and 10 from the Senate.

Article 166 of the constitution also provides that the Congress/CMO has budgetary process power to examine or amend the bill of the annual budget (or bills which modify it) provided such amendments:

- are compatible with the pluriannual plan and the law of budgetary directives
- specify the necessary funds, "allowing only those resulting from the annulment of expenses"
- exclude amendments related to personnel, debt servicing and constitutional tax transfers to the states, the municipalities and the federal district.

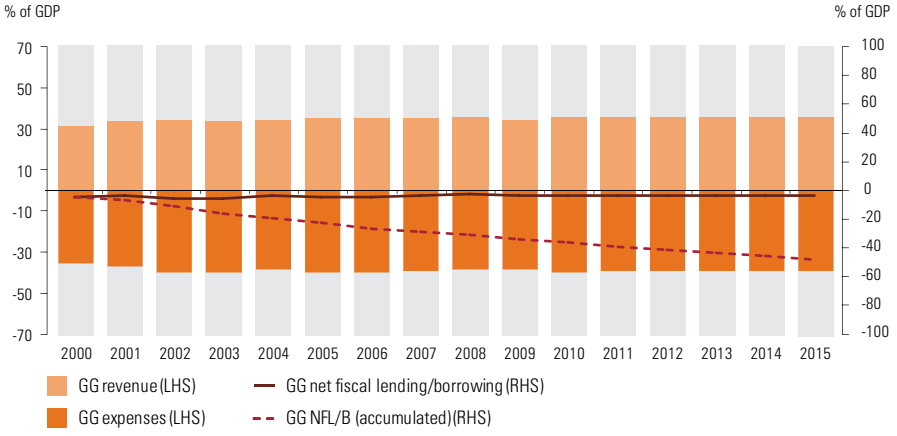
The article also provides that amendments may relate to "the correction of errors or omissions" or "the provisions of the text of the bill of law".

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	31.91	33.88	35.11	34.03	34.78	35.77	35.94	35.65	36.32	35.01	36.63	36.21	36.26	36.36	36.42	36.48	2011
GG expenses (LHS)	-35.29	-36.48	-39.52	-39.23	-37.65	-39.30	-39.49	-38.34	-37.71	-38.09	-39.44	-38.82	-38.59	-38.76	-38.68	-38.79	2011
Net GGR/E	-3.38	-2.60	-4.42	-5.20	-2.87	-3.53	-3.55	-2.69	-1.39	-3.08	-2.81	-2.61	-2.34	-2.39	-2.27	-2.31	
GG NFL/B (RHS)	-3.38	-2.60	-4.42	-5.20	-2.87	-3.53	-3.55	-2.69	-1.39	-3.08	-2.81	-2.61	-2.34	-2.39	-2.27	-2.31	2011
GG NFL/B (A) (RHS)	-3.38	-5.98	-10.39	-15.59	-18.47	-21.99	-25.54	-28.24	-29.63	-32.70	-35.51	-38.12	-40.45	-42.85	-45.12	-47.43	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Brazil is estimated to reduce the level of gross debt below 60 percent of GDP and the level of net debt below 32 percent of GDP by 2015. This will be a solid outcome given that these levels of debt were approximately 80 percent and 60 percent of GDP respectively in 2002.

Fiscal policy and strategy

Brazil enacted the *Fiscal Responsibility Law* in 2000 as a supplementary law to the Brazilian constitution. This law consolidates previous directives and consists of a comprehensive set of provisions to ensure fiscal responsibility. The law limits personnel expenditure to 50 percent of federal spending and 60 percent of state and municipal spending and facilitates the establishment of debt limits on public debt, federal securities and credit operations for all levels of government. Other provisions include:

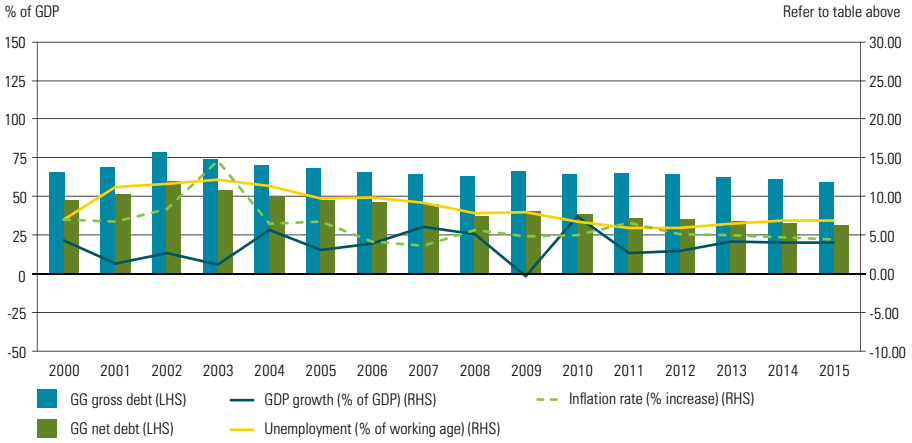
- estimated revenue for credit operations must not exceed the capital expenditures included in the draft *Annual Budgetary Law*
- budget transparency and reporting requirements, including reports at 4-month intervals with a detailed account of budget execution and compliance
- if debt ceiling limits are breached, the debt has to be brought back under the prevailing limit over a 12-month period and borrowing (other than for refinancing) is not permitted until that is achieved.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	66.65	70.24	79.80	74.78	70.76	69.17	66.68	65.19	63.54	66.92	65.15	66.18	65.10	63.12	61.45	59.88	2011
GG net debt (LHS)	47.75	52.23	60.64	54.92	50.58	48.21	46.96	45.12	38.05	41.53	39.15	36.41	36.03	34.47	33.15	31.93	2011
GDP growth (% of GDP) (RHS)	4.31	1.32	2.66	1.15	5.71	3.16	3.96	6.10	5.17	-0.33	7.53	2.73	3.03	4.15	4.00	4.12	2011
Unemployment (% of WA) (RHS)	7.10	11.27	11.67	12.30	11.47	9.82	9.97	9.29	7.90	8.08	6.74	5.97	6.00	6.50	7.00	7.00	2011
IR (% increase) (RHS)	7.04	6.84	8.45	14.72	6.60	6.87	4.18	3.64	5.68	4.89	5.04	6.64	5.17	4.97	4.77	4.50	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

Brazil enjoys a young population relative to other countries and, in the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will only rise from 10.4 percent to 16.6 percent.

Fiscal policy and strategy

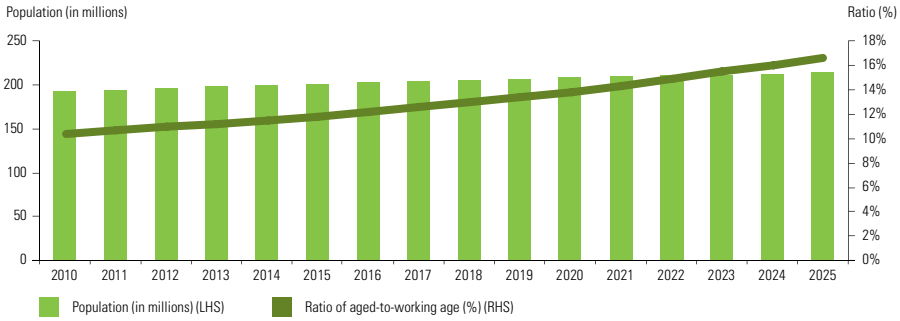
Importantly, the Brazilian constitution places the needs of intergenerational equity clearly in the view of budget policies. Article 165, Paragraph 7 states that, "The functions of the budgets set forth ... shall include the function of reducing intergenerational inequalities, according to population criteria".

National population and working age profile

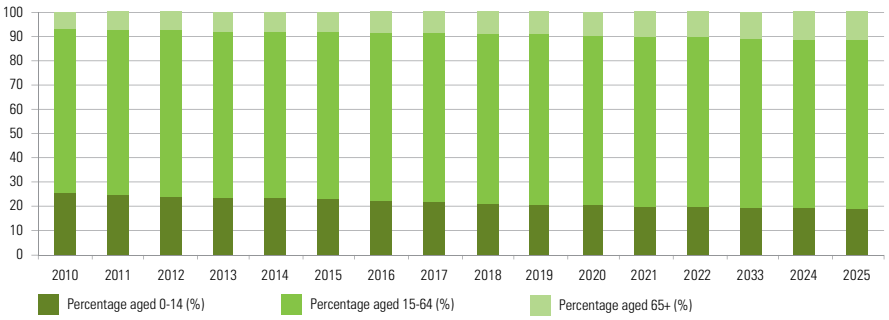
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	193.25	194.88	196.51	198.16	199.83	201.51	202.90	204.30	205.71	207.13	208.56	209.68	210.81	211.95	213.10	214.25	(in millions)
Aged 0-14 (%)	25.5%	25.0%	24.5%	24.1%	23.6%	23.1%	22.6%	22.1%	21.7%	21.2%	20.7%	20.4%	20.1%	19.9%	19.6%	19.3%	
Aged 15-64 (%)	67.5%	67.8%	68.0%	68.3%	68.5%	68.8%	69.0%	69.2%	69.3%	69.5%	69.7%	69.6%	69.5%	69.4%	69.3%	69.2%	
Aged 65+ (%)	7.0%	7.2%	7.4%	7.7%	7.9%	8.1%	8.4%	8.7%	9.0%	9.3%	9.6%	10.0%	10.4%	10.7%	11.1%	11.5%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	10.4%	10.7%	10.9%	11.2%	11.5%	11.8%	12.2%	12.6%	13.0%	13.4%	13.8%	14.3%	14.9%	15.5%	16.0%	16.6%	60.2%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Canada

Introduction

Canada is a constitutional monarchy which operates under a federal system of government comprising a federal (central) government, 10 provincial governments and three territorial governments. The relative powers of provincial government are constitutionally prescribed. Both the federal and the provincial legislatures may impose taxes, borrow money and operate their own treasury for the purposes of funding government goods and services.

Nationally, various mechanisms exist to facilitate horizontal and vertical fiscal integration and cooperation between federal and provincial governments including federal-provincial-territorial meetings of ministers and deputy ministers and a range of major federal transfer arrangements. These arrangements include the Equalization Program, which is used for equitable service alignment across all provincial governments and several transfer payment arrangements in key policy areas such as health (the Canadian Health Transfer (CHT)) and social services including education (the Canadian Social Transfer (CST)). Territories are also recipients of Territorial Formula Financing (TFF), which provides transfer payments to territories so that residents receive equivalent access to government services. Territories are also subject to centrally controlled borrowing limits.

Budget cycle

Fiscal trends

Budget cycle data shows that successive Canadian governments have maintained net fiscal lending/borrowing at sustainable levels. The years 2000 through to the onset of the GFC (2007) show a well-moderated series of general government results within a range of +2.95 percent of GDP (2000) to -0.09 percent of GDP (2002). Similar to other developed G20 countries of comparable size, the years 2009-15 show a firm deficit-driven stimulus effect as the economy is managed through the budget cycle. The peak deficit year (2009) saw net fiscal borrowing at -5.56 percent of GDP, while the estimated 2015 target of -1.46 percent of GDP supports the view that a budget surplus will be readily achievable over the medium term.

Fiscal policy and strategy

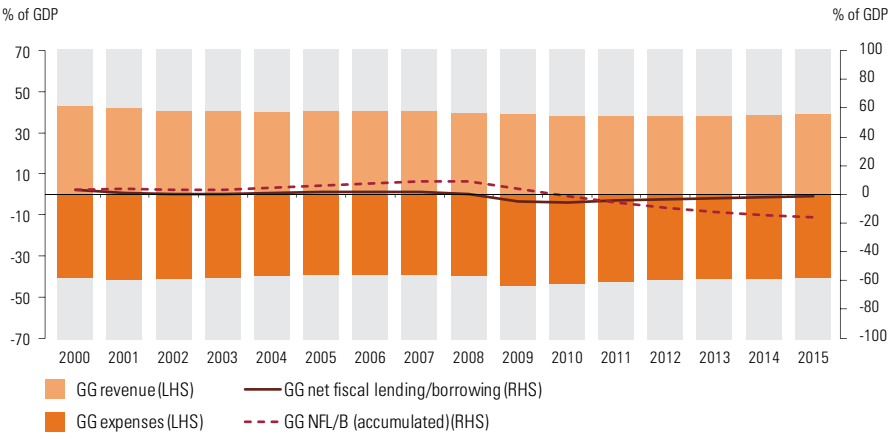
According to recent G20 fiscal policy commitments, Canada has a fiscal policy focus on reducing departmental spending, adjusting various public sector pension plan arrangements (including retirement ages and contribution levels) and strengthening the sustainability of transfer arrangements.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	43.53	42.18	40.81	40.73	40.59	40.75	40.84	40.74	39.66	39.17	38.26	38.12	38.06	38.39	38.79	39.11	2011
GG expenses (LHS)	-40.59	-41.52	-40.90	-40.81	-39.73	-39.20	-39.27	-39.16	-39.54	-44.06	-43.82	-42.66	-41.71	-41.31	-40.92	-40.57	2011
Net GGR/E	2.95	0.66	-0.09	-0.08	0.86	1.55	1.57	1.58	0.13	-4.89	-5.55	-4.55	-3.65	-2.92	-2.14	-1.46	
GG NFL/B (RHS)	2.95	0.66	-0.09	-0.08	0.86	1.55	1.57	1.58	0.13	-4.89	-5.56	-4.55	-3.65	-2.92	-2.14	-1.46	2011
GG NFL/B (A) (RHS)	2.95	3.60	3.51	3.43	4.29	5.84	7.40	8.99	9.11	4.23	-1.33	-5.88	-9.53	-12.45	-14.58	-16.04	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
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Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Canada has (and is estimated to maintain) a level of gross debt below 85 percent of GDP and a level of net debt below 47 percent of GDP throughout the entire period under review. On a percentage of GDP basis, the levels of gross debt and net debt are tracking to be at a slightly lower level in 2015 than they were in 2000.

Fiscal policy and strategy

While other sources of fiscal sustainability exist, Canada's most comprehensive work in this area is conducted by the Parliamentary Budget Officer (PBO). In 2010, the PBO released its first *Fiscal Sustainability Report (FSR 2010)*. The current *FSR 2011*, which extended the long-term analysis beyond the federal government and made use of GFS data from Statistics Canada, now provides an assessment of the sustainability of the federal and provincial-territorial governments' fiscal structure over the long term. In preparing the *FSR 2011*, the Canadian PBO:

- utilized the construct of 'fiscal gap', which represents the gap between the maintenance of current debt levels and the present value (PV) of future operating balances (OB), where OB is defined in terms of revenue less (non-interest) program expenditure
- calculated baseline long term OB projections under the key assumption that the current revenue and expenditure fiscal policy mix would remain stable over a 75-year horizon
- modeled a range of 'what if' scenarios in order to reflect parameter and assumption variability.

Importantly, the *FSR 2011* does not intentionally:

- postulate what a government's long-term debt-to-GDP objective should be
- model the interaction between government debt levels and economic activity
- assess the implications for intergenerational fairness.

Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 20.3 percent to 32.8 percent.

Fiscal policy and strategy

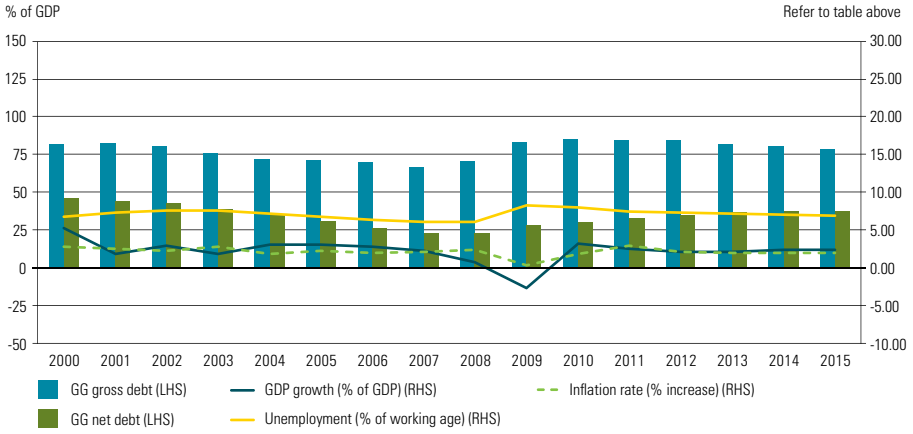
The *FSR 2011* report estimates that the fiscal gap (including the impact of intergenerational aging) requires a permanent adjustment equal to 2.7 percent of GDP annually. Moreover, PBO modeling of the delays in policy action of 5, 10, 20 and 30 years will increase this requirement to 3.0 percent, 3.4 percent, 4.4 percent and 5.8 percent of GDP respectively.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	82.13	82.66	80.55	76.56	72.60	71.61	70.26	66.52	71.08	83.59	85.06	84.95	84.68	81.96	80.42	78.77	2011
GG net debt (LHS)	46.23	44.26	42.65	38.67	35.21	31.01	26.30	22.92	22.59	28.27	30.45	33.33	35.44	36.89	37.49	37.36	2011
GDP growth (% of GDP) (RHS)	5.23	1.78	2.93	1.88	3.12	3.02	2.82	2.20	0.69	-2.77	3.22	2.46	2.06	2.16	2.37	2.42	2011
Unemployment (% of WA) (RHS)	6.83	7.27	7.67	7.58	7.18	6.76	6.30	6.06	6.15	8.29	7.98	7.47	7.36	7.26	7.08	6.87	2011
IR (% increase) (RHS)	2.74	2.51	2.28	2.74	1.84	2.23	2.02	2.13	2.39	0.30	1.78	2.89	2.16	1.96	1.99	2.01	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15

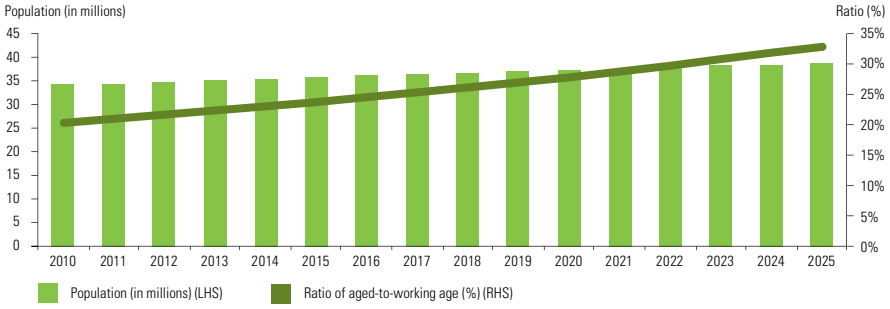


National population and working age profile

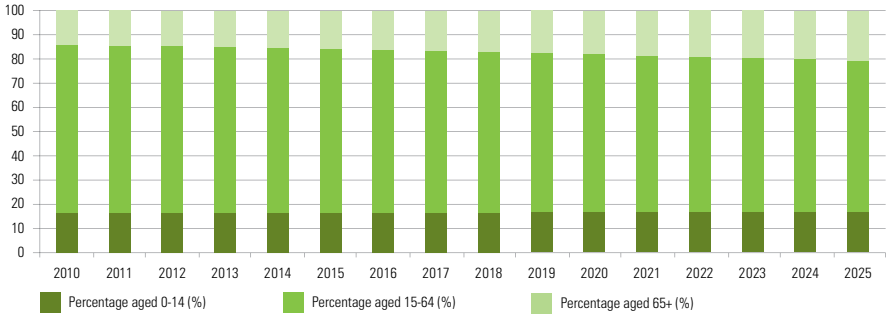
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	34.07	34.39	34.70	35.02	35.35	35.67	35.97	36.28	36.59	36.90	37.21	37.49	37.77	38.06	38.34	38.63	(in millions)
Aged 0-14 (%)	16.4%	16.4%	16.4%	16.3%	16.3%	16.3%	16.3%	16.4%	16.4%	16.5%	16.5%	16.5%	16.5%	16.5%	16.5%	16.5%	
Aged 15-64 (%)	69.5%	69.1%	68.8%	68.4%	68.1%	67.7%	67.2%	66.8%	66.3%	65.9%	65.4%	64.9%	64.4%	63.9%	63.4%	62.9%	
Aged 65+ (%)	14.1%	14.5%	14.9%	15.2%	15.6%	16.0%	16.4%	16.8%	17.3%	17.7%	18.1%	18.6%	19.1%	19.6%	20.1%	20.6%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	20.3%	20.9%	21.6%	22.3%	23.0%	23.6%	24.4%	25.2%	26.0%	26.8%	27.7%	28.7%	29.7%	30.7%	31.7%	32.8%	61.4%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

China

Introduction

The People's Republic of China is a single-party state governed by the Communist Party of China (the Party). It exercises jurisdiction over 23 provinces, five autonomous regions, four directly controlled municipalities including its capital city of Beijing and two primarily self-governing special administrative regions (Hong Kong and Macau). The highest-leading body of the Party is the National Congress and the Central Committee elected by it. The National Party Congress, held once every 5 years, is convened by the Central Committee. The Central Committee is elected for a term of 5 years and implements the resolutions of the National Congress and represents the Party internationally. The current structure of governance in China allows for fiscal decentralization via a hierarchy in which each level of government reports to the next highest level (from top to bottom: central, provincial, prefectural, county level and township level).

Budget cycle

Fiscal trends

Budget cycle data shows that China has maintained net fiscal lending/borrowing at sustainable levels for a developing economy. The years 2000 through to the onset of the GFC (2007) show moderate deficits/surpluses of between -3.27 percent of GDP (2000) rising to +0.90 percent of GDP (2007). The years 2008-15 show a deficit-driven response to the GFC which peaked at -3.09 percent of GDP (2009) and was subsequently accompanied by a reducing deficit stream which trails off to an estimated -0.14 percent of GDP in 2015 as the economy is managed through the budget cycle.

Fiscal policy and strategy

While China's fiscal decentralization policies saw the ratio of total government revenue-to-GDP decline from 28.4 percent to approximately 12.6 percent over the period 1979-93, the period from 2000-15 will see the ratio of total government revenue-to-GDP rise from 13.78 percent to 23.27 percent. Some of this shift (in percentage of GDP terms) in the levels of general government revenue is readily explained by China's many years of double-digit GDP growth. The more recent trend growth also reflects a fiscal policy focus whereby:

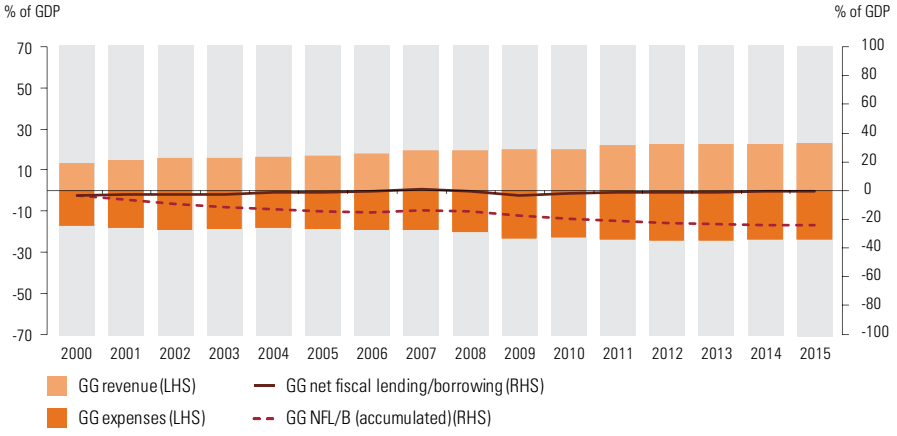
- general government revenue grows through the continuing processes of taxation reform and efforts to expand household consumption
- general government expenditures are optimized, prioritized and expanded in focus areas such as agriculture, rural development, education, science and technology, healthcare, low-income housing, energy conservation and emission reduction.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	13.78	15.11	15.93	16.16	16.65	17.22	18.23	19.80	19.66	20.01	20.19	22.34	22.84	22.97	23.07	23.27	2011
GG expenses (LHS)	-17.05	-17.91	-18.88	-18.60	-18.14	-18.61	-18.91	-18.90	-20.04	-23.10	-22.47	-23.58	-24.14	-23.94	-23.69	-23.40	2011
Net GGR/E	-3.27	-2.80	-2.95	-2.45	-1.49	-1.39	-0.68	0.90	-0.39	-3.09	-2.28	-1.24	-1.30	-0.97	-0.62	-0.13	
GG NFL/B (RHS)	-3.27	-2.80	-2.95	-2.45	-1.49	-1.39	-0.68	0.90	-0.39	-3.09	-2.28	-1.24	-1.30	-0.97	-0.62	-0.14	2011
GG NFL/B (A) (RHS)	-3.27	-6.07	-9.02	-11.47	-12.96	-14.35	-15.03	-14.13	-14.51	-17.60	-19.89	-21.13	-22.43	-23.40	-24.03	-24.16	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



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NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that China has maintained the level of gross debt below 35 percent of GDP throughout the entire period under review. On a percentage of GDP basis, the level of gross debt is tracking to be approximately the same level in 2015 (14.84 percent) as it was in 2000 (16.45 percent). Net debt figures were not available.

Fiscal policy and strategy

China implemented policy in 1980 to separate central and local budgets and adopted tax sharing reforms in 1994 that created a framework of fiscal relations between central and local governments. In a further effort to strengthen its budget operations, the Ministry of Finance introduced the *Budget Law* in 1994 to achieve the following objectives:

- strengthen the distribution and supervisory function of the budget
- improve the budget management of the state
- intensify the micro-scope regulation and control of the state
- ensure sound socioeconomic development.

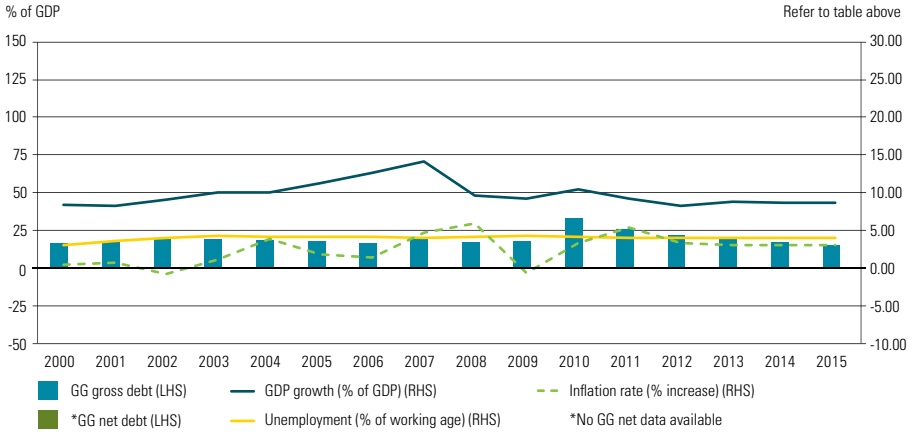
Recent G20 fiscal policy commitments include further structural improvements to tax policies and the objective of strictly controlling new debts of local government.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	16.45	17.71	18.94	19.25	18.54	17.64	16.19	19.59	16.96	17.67	33.54	25.84	22.03	19.38	17.09	14.84	2011
*GG net debt (LHS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GDP growth (% of GDP) (RHS)	8.43	8.30	9.08	10.03	10.09	11.31	12.68	14.16	9.64	9.21	10.45	9.24	8.23	8.79	8.73	8.70	2011
Unemployment (% of WA) (RHS)	3.10	3.60	4.00	4.30	4.20	4.20	4.10	4.00	4.20	4.30	4.10	4.00	4.00	4.00	4.00	4.00	2011
IR (% increase) (RHS)	0.40	0.73	-0.77	1.17	3.90	1.82	1.47	4.77	5.90	-0.68	3.33	5.42	3.32	3.04	3.00	3.00	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 11.3 percent to 19.9 percent. This may be a potentially large impact as social services increase.

Fiscal policy and strategy

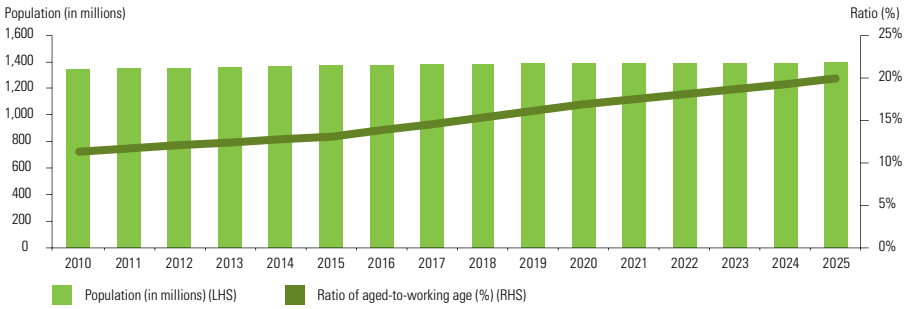
China's well documented 'one-child' policy (which has relaxed somewhat in recent years), coupled with a desire for continuing and expanding social services reform in areas such as health and housing, provides the basis for potential intergenerational fiscal pressures and raises the question of whether China will get old before it gets wholly prosperous. Notwithstanding such views, China's low levels of fiscal deficits and government debt, coupled with sound prospects for continuing levels of GDP growth, albeit at a reduced rate, provide the ready means to manage through the intergenerational cycle.

National population and working age profile

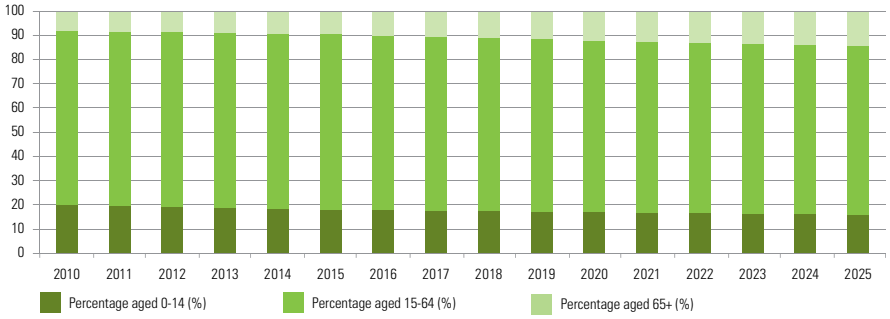
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	1341.4	1347.0	1352.7	1358.4	1364.1	1369.8	1373.4	1377.0	1380.5	1384.1	1387.7	1389.2	1390.8	1392.3	1393.8	1395.4	(in millions)
Aged 0-14 (%)	19.5%	19.2%	18.8%	18.5%	18.1%	17.8%	17.6%	17.4%	17.2%	17.0%	16.8%	16.6%	16.3%	16.1%	15.8%	15.6%	
Aged 15-64 (%)	72.3%	72.4%	72.5%	72.5%	72.6%	72.7%	72.4%	72.1%	71.8%	71.5%	71.2%	71.0%	70.9%	70.7%	70.6%	70.4%	
Aged 65+ (%)	8.2%	8.5%	8.7%	9.0%	9.2%	9.5%	10.0%	10.5%	11.0%	11.5%	12.0%	12.4%	12.8%	13.2%	13.6%	14.0%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	11.3%	11.7%	12.0%	12.4%	12.7%	13.1%	13.8%	14.6%	15.3%	16.1%	16.9%	17.5%	18.1%	18.7%	19.3%	19.9%	75.3%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

France

Introduction

France is a constitutional republic which operates under a unitary system of government led by a president who shares executive power with a presidentially appointed prime minister. The parliament comprises both a National Assembly and a Senate. French citizens democratically elect the president, members of the National Assembly and local government officials. Members of the Senate are appointed from the large pool of local government officials. As a founding member of the European Union (EU), as well as being a significant eurozone economy, some of France's constitutional sovereignty is subject to the provisions of EU treaties and policies.

Budget cycle

Fiscal trends

The problems of the eurozone sovereign debt crisis are well known. Not surprisingly, budget cycle data shows that successive French governments have been running net fiscal borrowing at unsustainable levels. The years 2000 through to the onset of the GFC (2007) show a series of general government deficits within a range of -1.52 percent to -4.09 percent of GDP. Further, the years 2009 and 2010 both show annual deficits of more than -7 percent of GDP. While forward estimates show a continuing run of deficits through 2015, recent commitments by eurozone countries to more critically address deficits, sovereign debt and fiscal sustainability concerns are likely to redress this trend.

Fiscal policy and strategy

In March 2012, all eurozone countries signed the *Treaty on Stability, Coordination and Governance of the Economic and Monetary Union* (the so-called 'Fiscal Compact'). As stated by European Council President Herman Van Rompuy during the signing ceremony, "It [the Treaty] has been drafted with care, because the stakes are high. It has been drafted with speed, because a crisis requires a swift response. Yet once this Treaty enters into force, its effect will be deep and long-lasting".

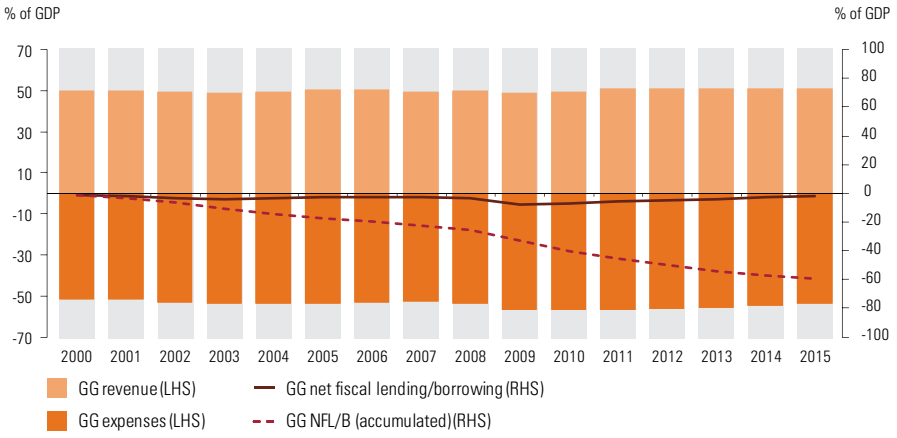
Under Article 3, Paragraph 1 (a) and (b), all Treaty signatories are required to set the general government budgetary position to either be in balance or in surplus. 'Balanced' in this context refers to the "annual structural balance of the general government [being] at its country-specific medium-term objective, as defined in the revised *Stability and Growth Pact*, with a lower limit of a structural deficit of 0.5 percent of the gross domestic product at market prices". Under Protocol (No. 12) Article 2, 'deficit' is defined to mean "net borrowing as defined in the *European System of Integrated Economic Accounts*".

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	50.11	49.98	49.55	49.28	49.72	50.66	50.56	49.85	49.98	49.15	49.58	50.98	51.26	51.43	51.39	51.40	2010
GG expenses (LHS)	-51.64	-51.63	-52.84	-53.37	-53.34	-53.63	-52.93	-52.60	-53.33	-56.73	-56.67	-56.32	-55.82	-55.30	-54.44	-53.59	2010
Net GGR/E	-1.52	-1.65	-3.28	-4.09	-3.62	-2.97	-2.37	-2.75	-3.35	-7.57	-7.09	-5.34	-4.56	-3.87	-3.05	-2.19	
GG NFL/B (RHS)	-1.52	-1.65	-3.28	-4.09	-3.62	-2.97	-2.37	-2.75	-3.35	-7.57	-7.09	-5.34	-4.56	-3.87	-3.05	-2.19	2010
GG NFL/B (A) (RHS)	-1.52	-3.18	-6.46	-10.55	-14.17	-17.14	-19.51	-22.26	-25.61	-33.18	-40.27	-45.61	-50.17	-54.04	-57.10	-59.29	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that France has (and is estimated to continue to have) high levels of gross debt (approximately 90 percent of GDP) and high levels of net debt (between 83 percent and 85 percent of GDP) throughout the forward estimates period (2012-15). These levels of debt are significantly higher than the levels at the start of the GFC in 2007 when they were 64.20 percent and 59.54 percent of GDP, respectively.

Fiscal policy and strategy

The Fiscal Compact has also sought to strengthen the controls over the size of eurozone country-specific debt. Under Article 4 of the Treaty, "When the ratio of a Contracting Party's general government debt to gross domestic product exceeds the 60 percent reference value referred to in Article 1 of the Protocol (No. 12) on the excessive deficit procedure ... that Contracting Party shall reduce it at an average rate of one twentieth per year as a benchmark ..." Protocol (No. 12) Article 2 defines 'debt' to mean "total gross debt at nominal value outstanding at the end of the year and consolidated between and within the sectors of general government". A further element of the Treaty in the area of general government debt management is that Contracting Parties are reminded to "refrain from any measure which could jeopardize the attainment of the Union's objective in the framework of the economic union, notably the practice of accumulating debt outside the general government accounts".

Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 25.9 percent to 35.8 percent.

Fiscal policy and strategy

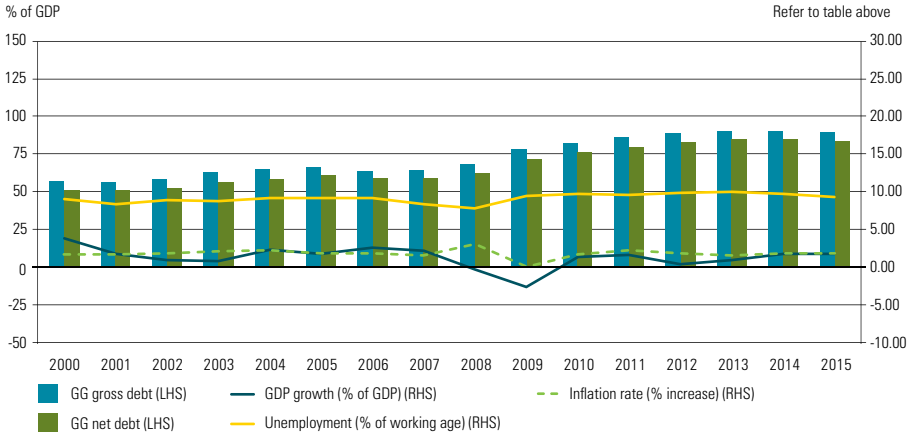
In the European Commission's *2009 Ageing Report*, France's fiscal impact of intergenerational aging on government expenditure was projected to be (net) 2.7 percent of GDP by 2060, comprising pensions (1.0 percent), health (1.2 percent), and long-term care (0.8 percent). Approaches for addressing this impact for all EU countries "will require determined policy action along the three-pronged strategy decided by the Stockholm European Council in 2001, i.e. (i) reducing debt at a fast pace; (ii) raising employment rates and productivity; and (iii) reforming pension, healthcare and long-term care systems".

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	57.35	56.91	59.00	63.15	65.14	66.74	63.90	64.20	68.27	78.99	82.39	86.26	89.02	90.75	90.64	89.61	2010
GG net debt (LHS)	51.38	51.28	53.08	56.72	58.75	60.81	59.60	59.54	62.33	71.97	76.56	80.43	83.19	84.92	84.81	83.78	2010
GDP growth (% of GDP) (RHS)	3.87	1.79	0.94	0.89	2.35	1.87	2.66	2.23	-0.20	-2.63	1.38	1.72	0.48	1.01	1.85	1.90	2011
Unemployment (% of WA) (RHS)	9.08	8.39	8.91	8.90	9.23	9.29	9.24	8.37	7.81	9.50	9.80	9.68	9.93	10.06	9.80	9.44	2010
IR (% increase) (RHS)	1.83	1.78	1.94	2.17	2.34	1.90	1.91	1.61	3.16	0.10	1.74	2.29	1.95	1.63	1.85	1.90	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15

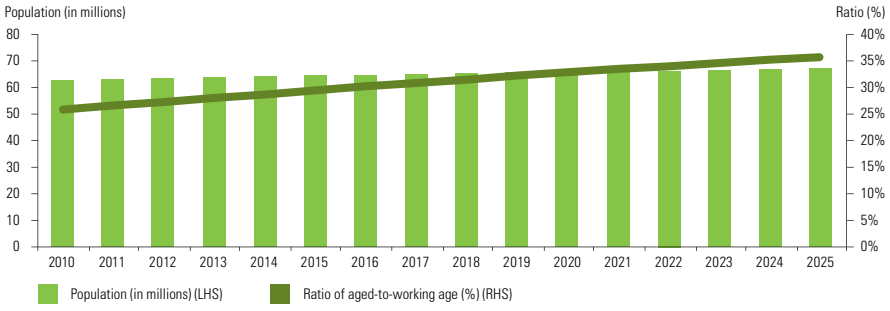


National population and working age profile

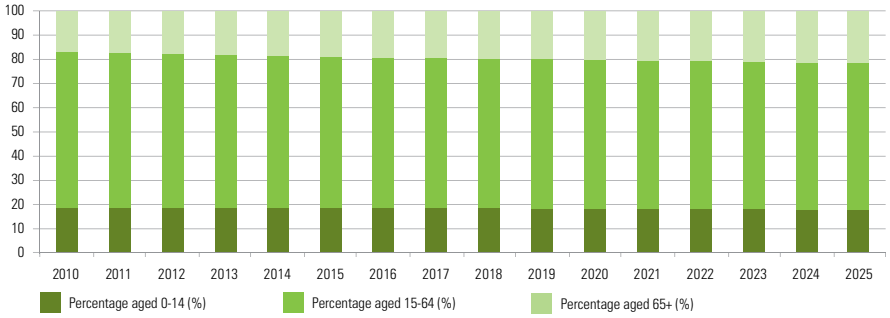
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	62.80	63.12	63.44	63.76	64.09	64.42	64.71	65.00	65.29	65.58	65.88	66.14	66.41	66.67	66.94	67.21	(in millions)
Aged 0-14 (%)	18.3%	18.3%	18.3%	18.4%	18.4%	18.4%	18.3%	18.3%	18.2%	18.2%	18.1%	18.0%	17.9%	17.9%	17.8%	17.7%	
Aged 15-64 (%)	64.9%	64.5%	64.1%	63.8%	63.4%	63.0%	62.7%	62.4%	62.2%	61.9%	61.6%	61.4%	61.2%	61.0%	60.8%	60.6%	
Aged 65+ (%)	16.8%	17.2%	17.5%	17.9%	18.2%	18.6%	18.9%	19.3%	19.6%	20.0%	20.3%	20.6%	20.9%	21.1%	21.4%	21.7%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	25.9%	26.6%	27.3%	28.0%	28.8%	29.5%	30.2%	30.9%	31.6%	32.3%	33.0%	33.5%	34.1%	34.7%	35.2%	35.8%	38.3%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Germany

Introduction

Germany is a democratic parliamentary republic which operates under a federal system of government under a constitution that is led by a president who generally serves a ceremonial role inclusive of significant reserve powers. The president chooses the chancellor, who in turn chooses the federal cabinet, which forms the executive branch of government. The two houses of parliament (the legislature) comprise a directly elected house (the Bundestag) and a second house representing regional states (the Bundesrat). As a founding member of the European Union (EU), as well as being a significant eurozone economy, some of Germany's constitutional sovereignty is subject to the provisions of EU treaties and policies.

Budget cycle

Fiscal trends

The problems of the eurozone sovereign debt crisis are well known. Budget cycle data shows that successive German governments have been running net fiscal lending/borrowing at manageable levels. The years 2000 through to the onset of the GFC (2007) show a series of general government spending results within a range of +1.32 percent to -4.06 percent of GDP. Moreover, while the years 2009 and 2010 both show annual deficits of more than -3 percent of GDP, the forward estimates show a reversion close to surplus by 2015. Further, recent commitments by eurozone countries to more critically address deficits, sovereign debt and fiscal sustainability concerns are likely to reinforce this trend to surplus despite slow growth risks.

Fiscal policy and strategy

In March 2012, all eurozone countries signed the *Treaty on Stability, Coordination and Governance of the Economic and Monetary Union* (the so-called 'Fiscal Compact'). Under Article 3, Paragraph 1 (a) and (b), all Treaty signatories are required to set the general government budgetary position to either be in balance or in surplus. 'Balanced' in this context refers to the "annual structural balance of the general government [being] at its country-specific medium-term objective, as defined in the revised *Stability and Growth Pact*, with a lower limit of a structural deficit of 0.5 percent of the gross domestic product at market prices". Under Protocol (No. 12) Article 2, 'deficit' is defined to mean "net borrowing as defined in the *European System of Integrated Economic Accounts*".

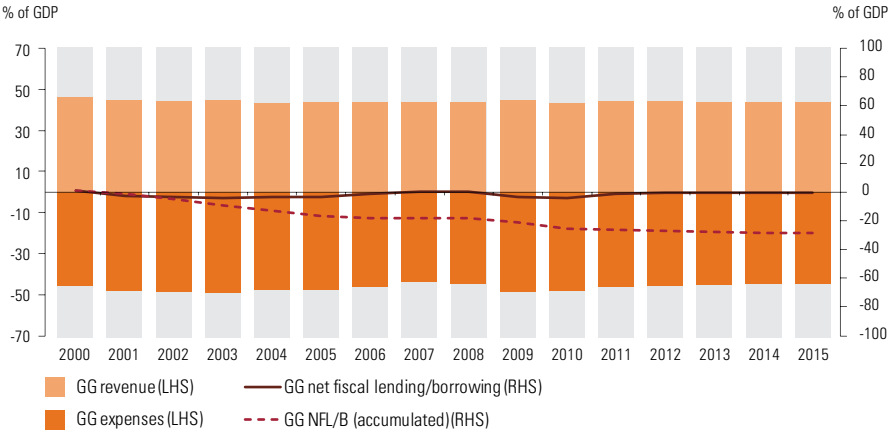
Article 109 of Germany's constitution also provides for a balanced budget rule which, while facilitating exceptions for natural disasters or unusual emergency situations, also requires (per Clause 3) that "for such exceptional regimes, a corresponding amortization plan must be adopted".

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	46.76	44.98	44.61	44.79	43.62	43.80	43.95	43.74	43.99	44.89	43.59	44.58	44.28	44.15	44.08	43.91	2011
GG expenses (LHS)	-45.44	-47.82	-48.34	-48.86	-47.42	-47.22	-45.56	-43.51	-44.05	-48.10	-47.87	-45.63	-45.09	-44.71	-44.39	-44.14	2011
Net GGR/E	1.32	-2.84	-3.73	-4.06	-3.80	-3.42	-1.61	0.24	-0.06	-3.21	-4.28	-1.05	-0.81	-0.56	-0.31	-0.23	
GG NFL/B (RHS)	1.32	-2.84	-3.73	-4.06	-3.80	-3.42	-1.61	0.24	-0.06	-3.21	-4.27	-1.05	-0.81	-0.56	-0.31	-0.23	2011
GG NFL/B (A) (RHS)	1.32	-1.51	-5.25	-9.31	-13.11	-16.53	-18.14	-17.90	-17.96	-21.17	-25.44	-26.49	-27.30	-27.86	-28.17	-28.39	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Germany has (and is estimated to continue to have) high levels of gross debt (in the range 74 percent to 79 percent of GDP) and high levels of net debt (in the range 52 percent to 55 percent of GDP) throughout the forward estimates period (2012-15). These levels of debt are manageably higher than the levels at the start of the GFC in 2007 when they were 65 percent and 50 percent of GDP respectively.

Fiscal policy and strategy

The Fiscal Compact has also sought to strengthen the controls over the size of eurozone country-specific debt. Under Article 4 of the Treaty, "When the ratio of a Contracting Party's general government debt to gross domestic product exceeds the 60 percent reference value referred to in Article 1 of the Protocol (No. 12) on the excessive deficit procedure ... that Contracting Party shall reduce it at an average rate of one twentieth per year as a benchmark ..." Protocol (No. 12) Article 2 defines 'debt' to mean "total gross debt at nominal value outstanding at the end of the year and consolidated between and within the sectors of general government". A further element of the Treaty in the area of general government debt management is that Contracting Parties are reminded to "refrain from any measure which could jeopardize the attainment of the Union's objective in the framework of the economic union, notably the practice of accumulating debt outside the general government accounts".

Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 30.9 percent to 40.7 percent.

Fiscal policy and strategy

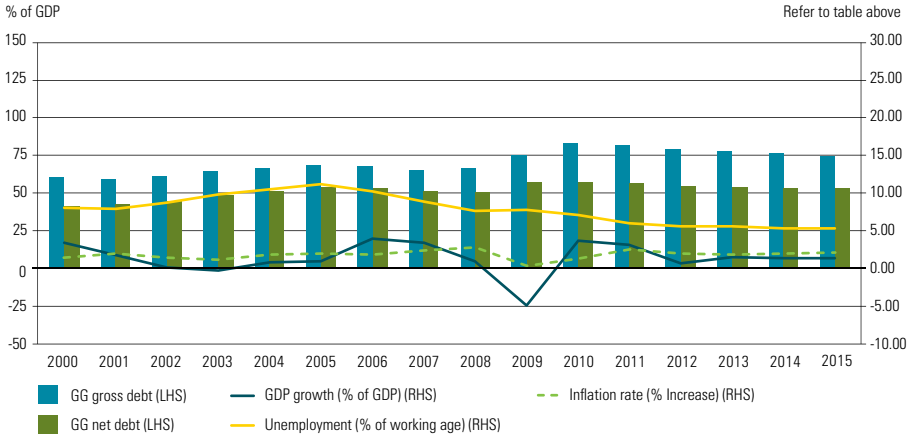
In the European Commission's *2009 Ageing Report*, Germany's fiscal impact of intergenerational aging on government expenditure was projected to be (net) 4.8 percent of GDP by 2060, comprising pensions (2.3 percent), health (1.8 percent), and long-term care (1.4 percent). Approaches for addressing this impact for all EU countries "will require determined policy action along the three-pronged strategy decided by the Stockholm European Council in 2001, i.e. (i) reducing debt at a fast pace; (ii) raising employment rates and productivity; and (iii) reforming pension, healthcare and long-term care systems".

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	60.18	59.14	60.75	64.43	66.20	68.51	67.92	65.20	66.70	74.42	83.21	81.51	78.87	77.45	75.84	74.39	2011
GG net debt (LHS)	41.12	42.35	44.81	48.56	50.82	53.48	53.03	50.37	50.00	56.65	56.80	56.06	54.14	53.41	52.43	52.43	2011
GDP growth (% of GDP) (RHS)	3.30	1.64	0.03	-0.39	0.70	0.83	3.89	3.39	0.81	-5.08	3.56	3.06	0.62	1.47	1.26	1.29	2011
Unemployment (% of WA) (RHS)	8.00	7.88	8.70	9.78	10.52	11.21	10.19	8.78	7.60	7.74	7.06	5.98	5.58	5.48	5.30	5.27	2011
IR (% increase) (RHS)	1.40	1.90	1.36	1.03	1.79	1.92	1.78	2.28	2.75	0.23	1.15	2.48	1.91	1.75	1.90	2.00	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15

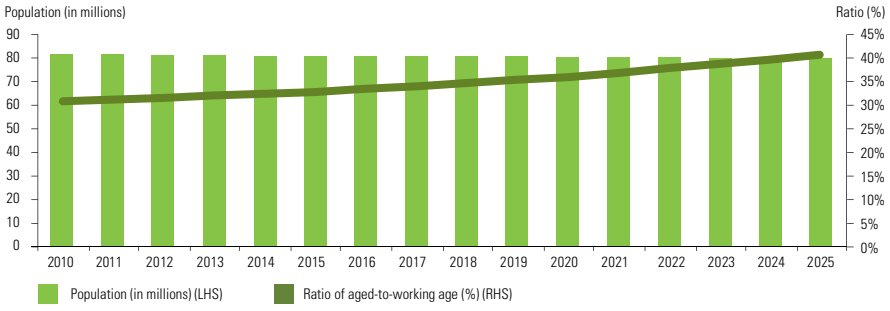


National population and working age profile

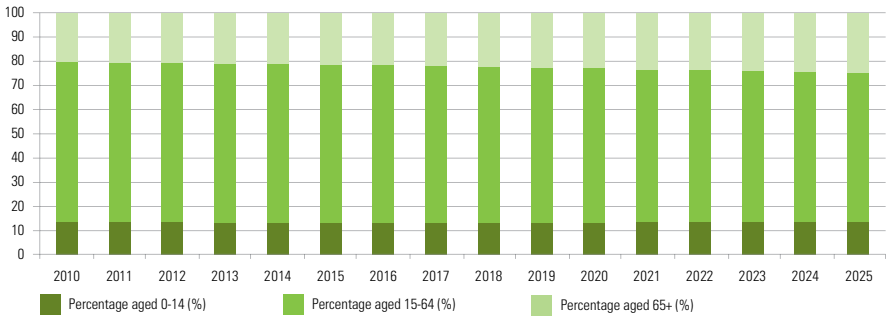
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	81.76	81.59	81.43	81.27	81.10	80.94	80.85	80.75	80.65	80.55	80.46	80.33	80.20	80.07	79.94	79.82	(in millions)
Aged 0-14 (%)	13.5%	13.4%	13.3%	13.2%	13.1%	13.0%	13.0%	13.1%	13.1%	13.2%	13.2%	13.3%	13.4%	13.4%	13.5%	13.6%	
Aged 15-64 (%)	66.1%	66.0%	65.9%	65.7%	65.6%	65.5%	65.2%	64.8%	64.5%	64.1%	63.8%	63.3%	62.8%	62.4%	61.9%	61.4%	
Aged 65+ (%)	20.4%	20.6%	20.8%	21.1%	21.3%	21.5%	21.8%	22.1%	22.4%	22.7%	23.0%	23.4%	23.8%	24.2%	24.6%	25.0%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	30.9%	31.3%	31.6%	32.0%	32.4%	32.8%	33.5%	34.1%	34.7%	35.4%	36.1%	37.0%	37.9%	38.8%	39.8%	40.7%	31.9%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

India

Introduction

India's constitution describes the government as a sovereign socialist secular democratic republic operating under a federal system of government comprising a central (federal) government, 28 state governments and seven union territory governments. The constitutional arrangements reflect elements from both the Westminster and republican models of government. The president as head of state (elected via a parliamentary electoral college system) may exercise all executive powers of the government. However, it is generally regarded as a largely ceremonial role, as it is the presidentially appointed prime minister and the Council of Ministers that exercise executive power. The Indian central government is bicameral, having both a directly elected lower house (House of the People), from which the prime minister and Council of Ministers are appointed by the president, and an indirectly elected upper house (Council of States). The Council of States is restricted in terms of legislative power on matters of supply.

Each state and territory government has a legislative assembly, some of which are also bicameral, and each may operate their own financial arrangements for the purposes of funding state and territory goods and services. Nationally, various mechanisms exist to facilitate horizontal and vertical fiscal integration and cooperation between governments, with the predominant mechanism being the constitutionally prescribed powers of the central government over state and territory governments.

Budget cycle

Fiscal trends

Budget cycle data shows that India has set net fiscal borrowing at unsustainable levels despite a reduction in the size of deficits after the 2003 introduction of *The Fiscal Responsibility and Budget Management (FRBM) Act*. The years 2001 through to the onset of the GFC (2007) show a moderate decline in deficits from -10.38 percent of GDP (2001) to -4.17 percent of GDP (2007). This FRBM-driven program to reduce deficits was not sustained through 2008 and 2009, resulting in deficits rising to a peak of -9.80 percent of GDP as stimulus was provided in response to GFC impacts. The years 2010-15 show an intent to achieve minor deficit reduction, which is estimated to fall to -7.94 percent of GDP by the end of the budget cycle in 2015. High deficits continue, however, driven in part by subsidies in diesel, liquid petroleum gas (LPG), kerosene and fertilizers.

Fiscal policy and strategy

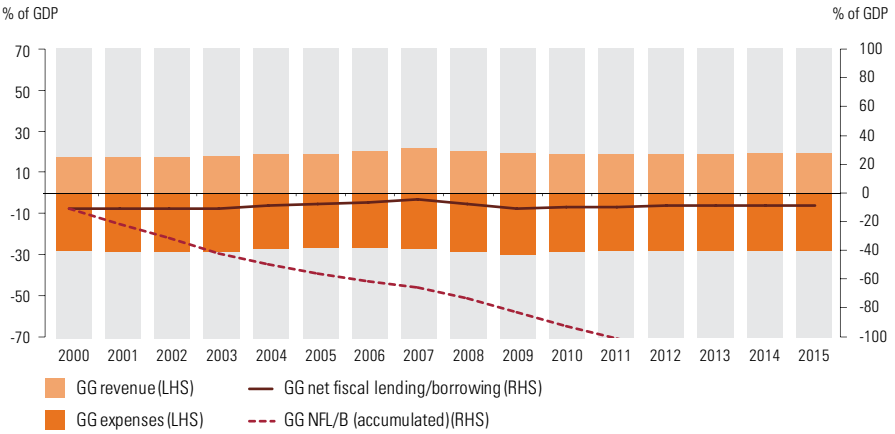
The central government policy target as outlined in Section 4 (1) of the FRBM was to eliminate revenue deficit (defined as "the difference between revenue expenditure and revenue receipts which indicates increase in liabilities of the central government without corresponding increase in assets of that government") by 31 March 2008 and thereafter build up adequate revenue surplus. Allowable deviations from this commitment are provided for in the FRBM, both in particular or special circumstances, with the GFC being one such exception that would readily satisfy the requirement.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	16.98	17.05	17.62	18.17	18.86	19.10	20.19	21.81	20.30	19.52	18.82	18.46	18.79	19.06	19.14	19.16	2010
GG expenses (LHS)	-26.99	-27.43	-27.73	-27.74	-26.49	-25.79	-25.67	-25.98	-27.50	-29.32	-27.98	-27.13	-27.11	-27.27	-27.26	-27.10	2010
Net GGR/E	-10.01	-10.38	-10.12	-9.57	-7.63	-6.68	-5.48	-4.17	-7.20	-9.80	-9.17	-8.66	-8.32	-8.22	-8.12	-7.94	
GG NFL/B (RHS)	-10.01	-10.38	-10.12	-9.57	-7.63	-6.68	-5.48	-4.17	-7.19	-9.80	-9.17	-8.66	-8.32	-8.21	-8.12	-7.94	2010
GG NFL/B (A) (RHS)	-10.01	-20.39	-30.50	-40.07	-47.70	-54.38	-59.86	-64.03	-71.22	-81.02	-90.19	-98.85	-107.16	-115.38	-123.50	-131.44	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that India has (and is estimated to) reduce the level of gross debt from approximately 84.3 percent of GDP (2003) to 65.81 percent of GDP (2015). Net debt data figures were not available.

Fiscal policy and strategy

The 2003 introduction of the FRBM (and the 2004 *Report of the Task Force on Implementation of the FRBM Act*) set out the responsibility of the central government to ensure intergenerational equity in fiscal management and long-term macroeconomic stability. These require the government to:

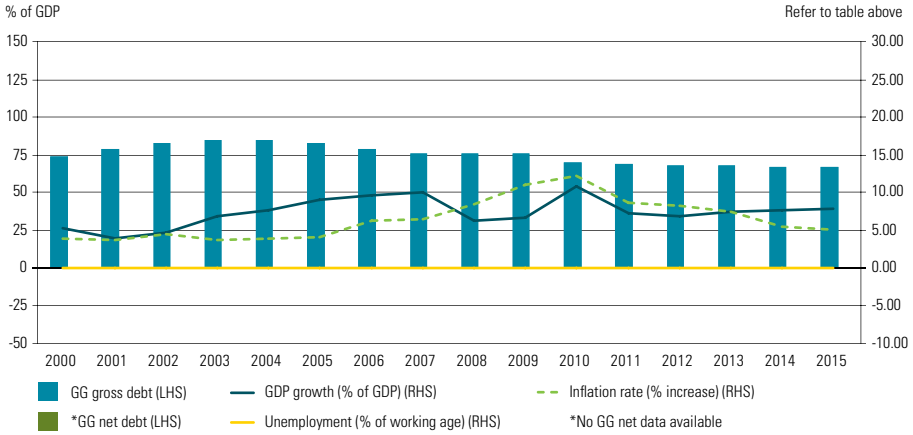
- achieve sufficient revenue surplus (by reducing the revenue deficit by 0.5 percent GDP each year)
- pursue prudent debt management consistent with fiscal sustainability
- ensure greater transparency over the fiscal operations of government
- conduct fiscal policy in a medium-term framework.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	72.73	77.85	82.20	84.30	84.06	81.76	78.49	75.44	74.72	74.97	69.43	68.05	67.57	66.77	66.24	65.81	2010
*GG net debt (LHS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GDP growth (% of GDP) (RHS)	5.16	3.89	4.56	6.85	7.59	9.03	9.53	9.99	6.19	6.58	10.62	7.24	6.86	7.29	7.55	7.72	2011
Unemployment (% of WA) (RHS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2010
IR (% increase) (RHS)	3.91	3.67	4.47	3.71	3.89	3.97	6.27	6.37	8.35	10.88	11.99	8.63	8.16	7.35	5.50	4.99	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 7.6 percent to 10.9 percent. This is one of the lowest aged ratios of any G20 country.

Fiscal policy and strategy

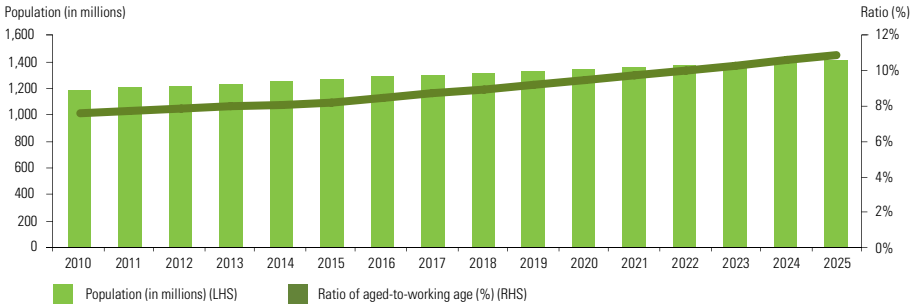
The FRBM cites the government's responsibility for intergenerational equity in fiscal management but provides little specific articulation about how such responsibility will be met other than through achieving sufficient revenue surplus, pursuing debt reduction and setting fiscal policy within a medium-term framework. This short to medium term fiscal focus is likely to remain for some time, as much of what was outlined or intended in the FRBM and its accompanying implementation strategy still needs to be realized in practice.

National population and working age profile

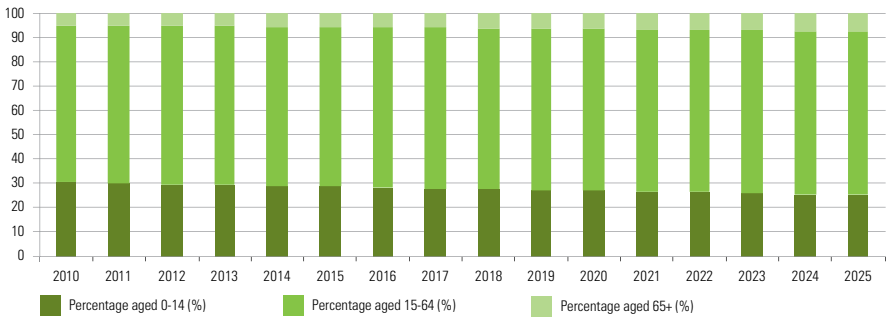
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	1190.5	1206.2	1222.2	1238.3	1254.6	1271.2	1286.1	1301.1	1316.3	1331.7	1347.3	1360.9	1374.7	1388.6	1402.6	1416.8	(in millions)
Aged 0-14 (%)	30.6%	30.2%	29.9%	29.5%	29.2%	28.8%	28.5%	28.1%	27.8%	27.4%	27.1%	26.8%	26.5%	26.1%	25.8%	25.5%	
Aged 15-64 (%)	64.5%	64.8%	65.0%	65.3%	65.5%	65.8%	66.0%	66.1%	66.3%	66.4%	66.6%	66.7%	66.8%	67.0%	67.1%	67.2%	
Aged 65+ (%)	4.9%	5.0%	5.1%	5.2%	5.3%	5.4%	5.6%	5.8%	5.9%	6.1%	6.3%	6.5%	6.7%	6.9%	7.1%	7.3%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	7.6%	7.7%	7.8%	8.0%	8.1%	8.2%	8.5%	8.7%	9.0%	9.2%	9.5%	9.7%	10.0%	10.3%	10.6%	10.9%	43.0%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Indonesia

Introduction

Indonesia is a democratic republic comprised of executive, legislative and judicial branches of power. The executive branch consists of the president (head of government and chief of state) elected by direct popular vote. The legislative branch is the People's Consultative Assembly (MPR), which includes the 560-member House of Representatives and the 132-member Council of Regional Representatives, both elected to 5-year terms. The judicial branch consists of the Supreme Court which is the final court of appeal, while the Constitutional Court has power of judicial review.

Indonesia's national government operates in conjunction with sub-national governments, the highest level being that of the province. Indonesia has 33 provinces and each has their own local government, with executive power being exercised by a governor and supported by a legislative body.

Budget cycle

Fiscal trends

Budget cycle data shows that Indonesia has maintained net fiscal lending/borrowing at sustainable levels for a developing economy. The years 2000 through to the onset of the GFC (2007) show moderate deficits/surpluses of between -2.70 percent of GDP (2001) and +0.63 percent of GDP (2005). The years 2008-15 show a continuing string of small deficits of between -1.76 percent of GDP (2009) declining to -0.97 percent of GDP (2015) as the economy is managed through the budget cycle.

Fiscal policy and strategy

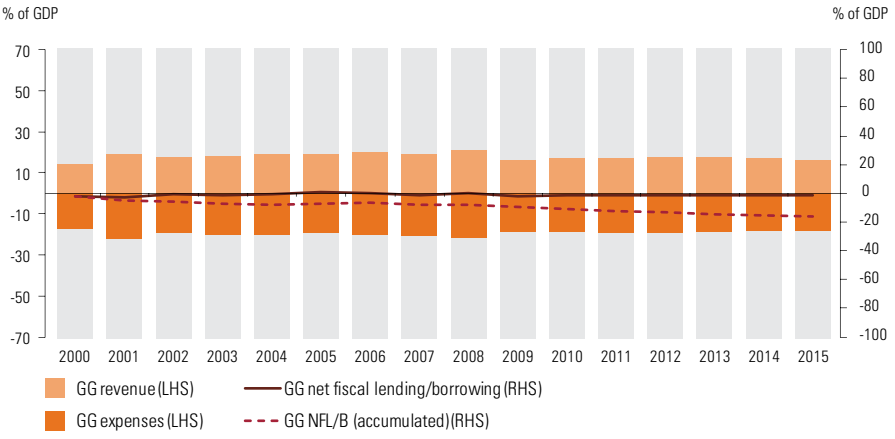
Indonesia introduced two key reforms in the area of budgetary and financial management to increase accountability of local and regional governments. *Peraturan Pemerintah* (2005) related to new government accounting standards and *Permendagri* (2006) introduced new performance-based budgeting standards. *Permendagri* mandates that the budget must specify all expenditures at the activity level and give details of functions, government affairs, organizations, and programs. Importantly, state finance law limits the deficit the government can have to less than 3 percent of GDP.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	14.61	19.30	17.87	18.34	19.31	19.38	20.35	19.29	21.28	16.50	17.02	17.41	17.89	17.52	17.15	16.89	2010
GG expenses (LHS)	-16.64	-22.00	-18.74	-19.72	-19.93	-18.75	-20.12	-20.33	-21.28	-18.26	-18.23	-18.99	-18.86	-18.55	-18.12	-17.86	2010
Net GGR/E	-2.03	-2.70	-0.87	-1.37	-0.62	0.63	0.23	-1.03	0.00	-1.76	-1.21	-1.58	-0.97	-1.02	-0.98	-0.97	
GG NFL/B (RHS)	-2.03	-2.70	-0.87	-1.37	-0.62	0.63	0.23	-1.03	0.00	-1.76	-1.21	-1.58	-0.97	-1.02	-0.98	-0.97	2010
GG NFL/B (RHS)	-2.03	-4.73	-5.60	-6.97	-7.60	-6.96	-6.74	-7.77	-7.78	-9.54	-10.75	-12.32	-13.29	-14.32	-15.29	-16.26	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
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NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Indonesia has significantly reduced the level of gross debt from approximately 95.1 percent of GDP (2000) to 27.38 percent of GDP (2010). This gross debt reduction trend is anticipated to continue throughout the economic cycle to an estimated level of 17.63 percent of GDP in 2015. Net debt figures were not available.

Fiscal policy and strategy

Part of the focus on fiscal sustainability in recent years has been on fiscal integration with Indonesian regional governments. In this regard, the laws related to regional autonomy and fiscal responsibilities have played an important role. These laws include the *Law on Regional Governance* (2004), which focuses on administrative and political decentralization and includes guidelines for delegation of expenditure responsibilities, and the *Law on Fiscal Balance* (2004), which governs the distribution of resources across regions.

Indonesia also has a number of key laws which govern budgeting, accounting and financial reporting including the *Law on State Finances* (2003), which provides treasury and audit rules for local governments and the *Law on State Treasury* (2004), which provides the legal framework for a unified budget and prescribes a variety of financial management functions.

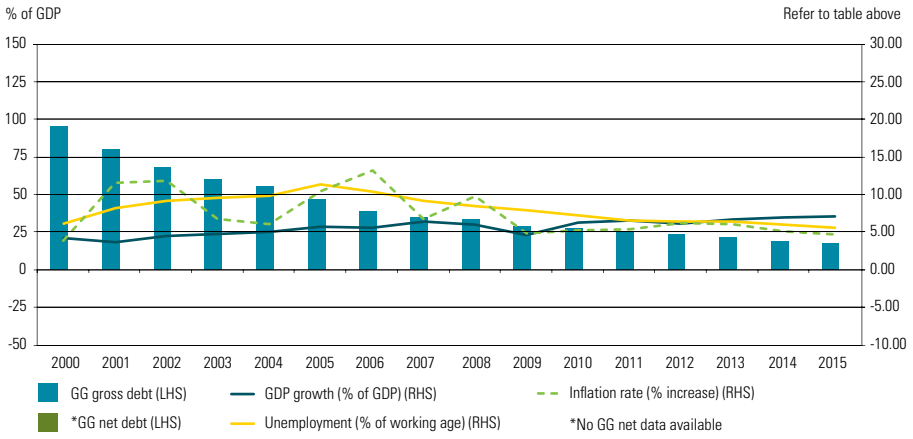
Reducing gross debt has also been a particular focus of fiscal policy over recent years.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	95.10	80.16	67.80	60.52	55.83	46.35	38.99	35.05	33.24	28.64	27.38	25.03	23.23	21.05	19.18	17.63	2010
*GG net debt (LHS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GDP growth (% of GDP) (RHS)	4.20	3.64	4.50	4.78	5.03	5.69	5.50	6.35	6.01	4.63	6.20	6.46	6.10	6.60	6.90	7.00	2011
Unemployment (% of WA) (RHS)	6.08	8.10	9.10	9.50	9.86	11.24	10.28	9.11	8.39	7.87	7.14	6.56	6.40	6.30	6.00	5.50	2010
IR (% increase) (RHS)	3.77	11.50	11.78	6.77	6.06	10.46	13.10	6.66	9.78	4.81	5.13	5.36	6.19	5.97	5.10	4.70	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 8.3 percent to 12.3 percent. This is one of the lower aged ratios of any G20 country.

Fiscal policy and strategy

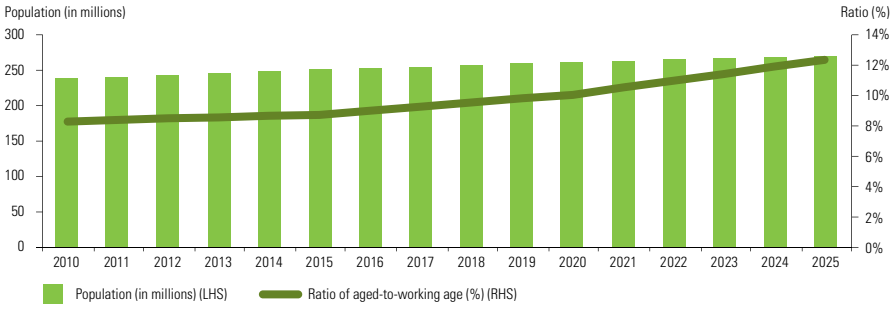
Indonesia's entitlement spending increase on health and pensions is estimated to be 1.5 percent and 3 percent respectively from 2010-50, which is less than the median figure of 4.8 percent across 22 emerging economies.

National population and working age profile

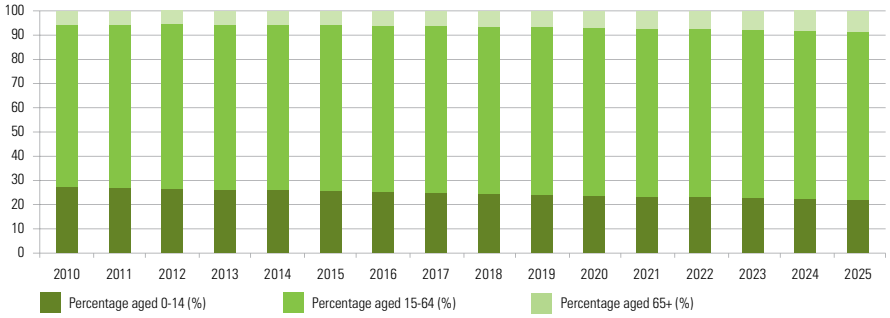
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	237.64	239.97	242.32	244.70	247.09	249.52	251.59	253.68	255.78	257.90	260.04	261.86	263.70	265.54	267.40	269.27	(in millions)
Aged 0-14 (%)	27.0%	26.7%	26.4%	26.0%	25.7%	25.4%	25.0%	24.6%	24.3%	23.9%	23.5%	23.1%	22.8%	22.4%	22.1%	21.7%	
Aged 15-64 (%)	67.4%	67.6%	67.9%	68.1%	68.4%	68.6%	68.8%	69.0%	69.1%	69.3%	69.5%	69.5%	69.6%	69.6%	69.7%	69.7%	
Aged 65+ (%)	5.6%	5.7%	5.8%	5.8%	5.9%	6.0%	6.2%	6.4%	6.6%	6.8%	7.0%	7.3%	7.6%	8.0%	8.3%	8.6%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	8.3%	8.4%	8.5%	8.6%	8.7%	8.7%	9.0%	9.3%	9.5%	9.8%	10.1%	10.5%	11.0%	11.4%	11.9%	12.3%	48.5%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Italy

Introduction

Italy is a democratic republic which operates under a constitution, in effect since 1948, which established a bicameral parliament comprising a Chamber of Deputies and a Senate. The central system of government also encompasses 94 provinces and 20 regions. The president, who is elected for a 7-year term by the parliament, nominates the prime minister who in turn chooses other ministers. Italian citizens democratically elect the houses of parliament. As a member of the European Union (EU), as well as being a significant eurozone economy, some of Italy's constitutional sovereignty is subject to the provisions of EU treaties and policies.

Budget cycle

Fiscal trends

The problems of the eurozone sovereign debt crisis are well known. Not surprisingly, budget cycle data shows that successive Italian governments have been running net fiscal borrowing at unsustainable levels. The years 2000 through to the onset of the GFC (2007) show a series of general government deficits within a range of -0.86 percent of GDP (2000) to -4.35 percent of GDP (2005). Further, the years 2009 and 2010 show high annual deficits of -5.37 percent and -4.49 percent of GDP respectively. The forward estimates show a continuing run of deficits through 2015. However, recent commitments by eurozone countries to more critically address deficits, sovereign debt and fiscal sustainability concerns may further redress this trend.

Fiscal policy and strategy

In March 2012, all eurozone countries signed the *Treaty on Stability, Coordination and Governance of the Economic and Monetary Union* (the so-called 'Fiscal Compact'). As stated by European Council President Herman Van Rompuy during the signing ceremony, "It [the Treaty] has been drafted with care, because the stakes are high. It has been drafted with speed, because a crisis requires a swift response. Yet once this Treaty enters into force, its effect will be deep and long-lasting."

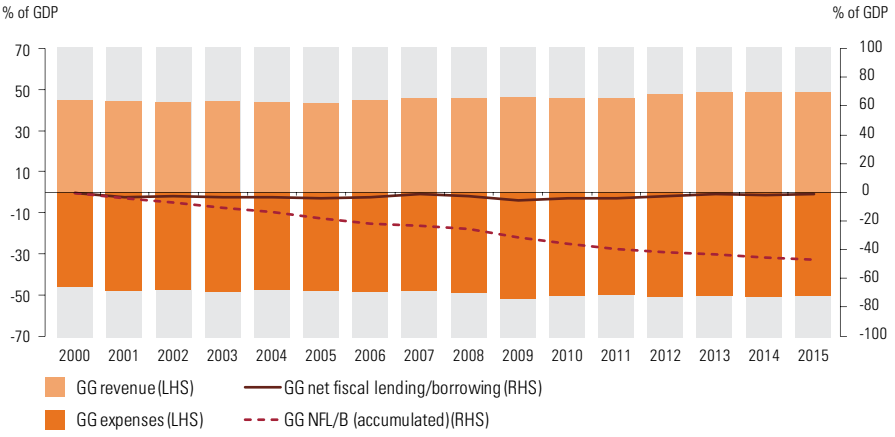
Under Article 3, Paragraph 1 (a) and (b), all Treaty signatories are required to set the general government budgetary position to either be in balance or in surplus. 'Balanced' in this context refers to the "annual structural balance of the general government [being] at its country-specific medium-term objective, as defined in the revised *Stability and Growth Pact*, with a lower limit of a structural deficit of 0.5 percent of the gross domestic product at market prices." Under Protocol (No. 12) Article 2, 'deficit' is defined to mean "net borrowing as defined in the *European System of Integrated Economic Accounts*."

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	45.04	44.66	44.15	44.56	43.99	43.57	45.14	46.13	45.94	46.52	46.01	46.01	48.28	49.00	49.08	49.14	2011
GG expenses (LHS)	-45.90	-47.75	-47.14	-48.09	-47.53	-47.92	-48.46	-47.61	-48.61	-51.89	-50.50	-49.95	-50.66	-50.54	-50.70	-50.60	2011
Net GGR/E	-0.86	-3.09	-2.99	-3.53	-3.54	-4.35	-3.33	-1.48	-2.67	-5.37	-4.49	-3.95	-2.38	-1.55	-1.62	-1.46	
GG NFL/B (RHS)	-0.86	-3.08	-2.99	-3.53	-3.54	-4.35	-3.33	-1.48	-2.67	-5.37	-4.49	-3.95	-2.38	-1.55	-1.62	-1.46	2011
GG NFL/B (A) (RHS)	-0.86	-3.94	-6.94	-10.46	-14.01	-18.36	-21.68	-23.16	-25.83	-31.20	-35.69	-39.64	-42.01	-43.56	-45.18	-46.64	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



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GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Italy is estimated to continue to maintain extreme levels of gross debt (over 120 percent of GDP) and net debt (over 100 percent of GDP) throughout the forward estimates period (2012-15). These levels of debt are higher than the levels at the start of the GFC in 2007 (when they were 103.08 percent and 86.89 percent, respectively) and remain the biggest challenge to fiscal sustainability for the Italian government.

Fiscal policy and strategy

The Fiscal Compact has also sought to strengthen the controls over the size of eurozone country-specific debt. Under Article 4 of the Treaty, "When the ratio of a Contracting Party's general government debt to gross domestic product exceeds the 60 percent reference value referred to in Article 1 of the Protocol (No. 12) on the excessive deficit procedure ... that Contracting Party shall reduce it at an average rate of one twentieth per year as a benchmark ..." Protocol (No. 12) Article 2 defines 'debt' to mean "total gross debt at nominal value outstanding at the end of the year and consolidated between and within the sectors of general government". A further element of the Treaty in the area of general government debt management is that Contracting Parties are reminded to "refrain from any measure which could jeopardize the attainment of the Union's objective in the framework of the economic union, notably the practice of accumulating debt outside the general government accounts".

Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 31.1 percent to 38.8 percent.

Fiscal policy and strategy

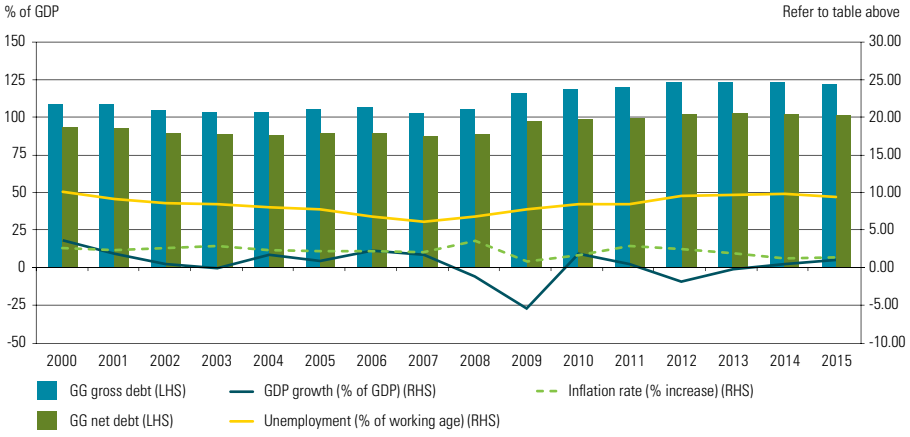
In the European Commission's 2009 *Ageing Report*, Italy's fiscal impact of intergenerational aging on government expenditure was projected to be (net) 1.6 percent of GDP by 2060, comprising pensions (-0.4 percent), health (1.1 percent), and long-term care (1.3 percent). Approaches for addressing this impact for all EU countries "will require determined policy action along the three-pronged strategy decided by the Stockholm European Council in 2001, i.e. (i) reducing debt at a fast pace; (ii) raising employment rates and productivity; and (iii) reforming pension, healthcare and long-term care systems".

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	108.51	108.17	105.15	103.91	103.44	105.43	106.10	103.08	105.81	116.06	118.65	120.11	123.36	123.80	123.40	122.26	2011
GG net debt (LHS)	93.11	92.47	89.30	88.43	88.04	88.90	89.33	86.89	88.78	97.13	99.04	99.56	102.26	102.63	102.49	101.55	2011
GDP growth (% of GDP) (RHS)	3.65	1.86	0.45	-0.05	1.73	0.93	2.20	1.68	-1.16	-5.49	1.80	0.43	-1.91	-0.29	0.50	1.00	2011
Unemployment (% of WA) (RHS)	10.10	9.10	8.61	8.45	8.02	7.71	6.78	6.12	6.79	7.79	8.38	8.37	9.50	9.72	9.83	9.42	2011
IR (% increase) (RHS)	2.58	2.32	2.61	2.81	2.27	2.21	2.22	2.04	3.50	0.76	1.64	2.90	2.50	1.84	1.20	1.30	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15

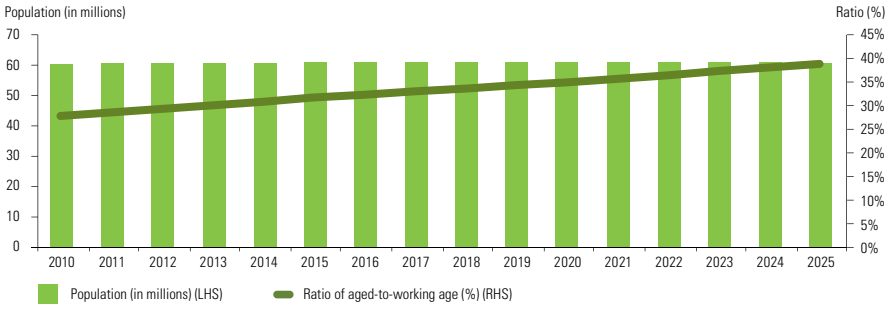


National population and working age profile

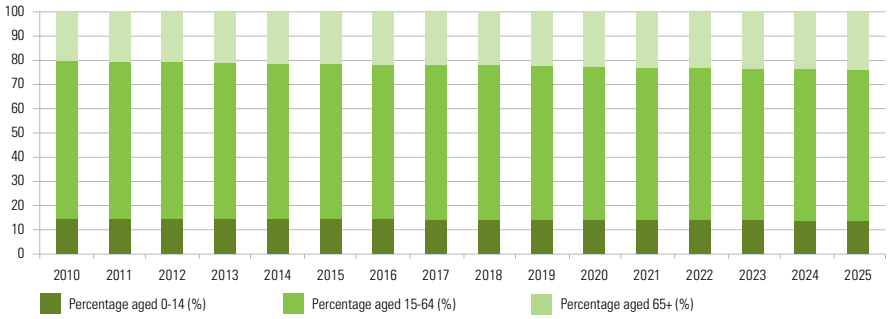
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	60.34	60.48	60.62	60.76	60.90	61.04	61.05	61.06	61.07	61.09	61.10	61.06	61.02	60.99	60.95	60.92	(in millions)
Aged 0-14 (%)	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%	14.1%	14.0%	14.0%	13.9%	13.9%	13.8%	13.7%	13.7%	13.6%	13.5%	
Aged 15-64 (%)	65.5%	65.2%	65.0%	64.7%	64.5%	64.2%	64.0%	63.8%	63.7%	63.5%	63.3%	63.1%	62.9%	62.7%	62.5%	62.3%	
Aged 65+ (%)	20.4%	20.7%	20.9%	21.2%	21.4%	21.7%	21.9%	22.1%	22.4%	22.6%	22.8%	23.1%	23.4%	23.6%	23.9%	24.2%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	31.1%	31.7%	32.2%	32.7%	33.3%	33.8%	34.2%	34.7%	35.1%	35.6%	36.0%	36.6%	37.1%	37.7%	38.3%	38.8%	24.7%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Japan

Introduction

Japan is a constitutional monarchy with a parliamentary system of government. The Japanese constitution was promulgated in 1946 and the parliament is known as the Diet. It is bicameral in nature comprising both a House of Representatives (480 members) and the House of Councillors (242 members). The members of the Diet are elected by the Japanese people. The prime minister is elected by the Diet and heads the Cabinet. The prime minister also appoints ministers of state who are usually members of the Diet. In Japan, the Ministry of Finance is responsible for the budget preparation and other fiscal responsibilities.

Budget cycle

Fiscal trends

The years 2000 through to the onset of the GFC (2007) show a series of general government deficits within a range of -7.55 percent of GDP (2000) to -2.09 percent of GDP (2007). The years 2008-15 show a continuing deficit-driven response to the GFC (and a sluggish economy) which peaked at -10.39 percent of GDP in 2009. This deficit peak is accompanied by a continuing and significant deficit stream which is estimated to remain as high as -7.58 percent of GDP in 2015.

Fiscal policy and strategy

Despite past efforts such as the *Fiscal Structural Reform Act of 1997 & 1998*, which sought, among other things, to maintain deficits below 3 percent of GDP, Japan has continued to introduce economic stimulus packages to support the economy's faltering growth while continuing to support the increasing social security and health payments of an aging society.

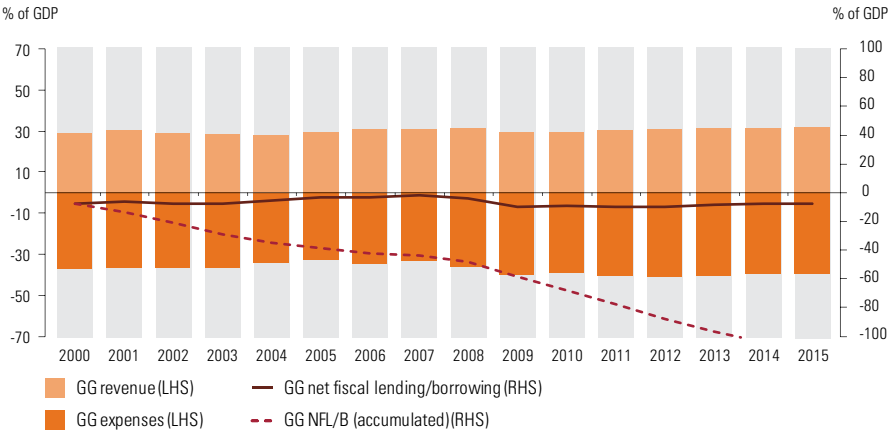
Recent G20 fiscal policy commitments would see the Japanese government target to halve the 2010 primary deficit-to-GDP ratio of -9.36 percent by no later than 2015. This would effectively reduce the current estimated 2015 deficit of -7.58 percent of GDP to approximately -4.68 percent of GDP.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	29.24	30.33	28.92	28.42	27.91	29.30	30.84	31.22	31.62	29.59	29.64	30.61	31.14	31.61	31.84	31.95	2010
GG expenses (LHS)	-36.79	-36.37	-36.62	-36.21	-33.85	-32.73	-34.49	-33.31	-35.73	-39.98	-39.00	-40.68	-41.13	-40.34	-39.70	-39.54	2010
Net GGR/E	-7.55	-6.04	-7.71	-7.79	-5.95	-3.43	-3.65	-2.09	-4.11	-10.39	-9.36	-10.07	-9.99	-8.73	-7.87	-7.58	
GG NFL/B (RHS)	-7.55	-6.04	-7.71	-7.79	-5.95	-3.43	-3.65	-2.09	-4.11	-10.39	-9.36	-10.07	-9.99	-8.73	-7.87	-7.58	2010
GG NFL/B (A) (RHS)	-7.55	-13.59	-21.30	-29.09	-35.03	-38.47	-42.12	-44.20	-48.31	-58.71	-68.07	-78.14	-88.12	-96.85	-104.72	-112.30	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Japan has (and is estimated to continue to have) extreme levels of gross debt and net debt throughout the period from 2000-15. Gross debt will rise from 140.15 percent of GDP (2000) to an estimated 249.74 percent of GDP (2015) and net debt will rise from 59.6 percent of GDP (2000) to an estimated 155.0 percent of GDP (2015). These levels of debt are unsustainable and only remain affordable given the Japanese government's unique access to the low-cost private sector savings of its people.

Fiscal policy and strategy

Japan's general government ratio of gross debt-to-GDP and net debt-to-GDP are the highest of any country in the G20. Despite past efforts to address fiscal sustainability, Japan has continued to run sizeable deficits and further increase the ratio of government debt-to-GDP.

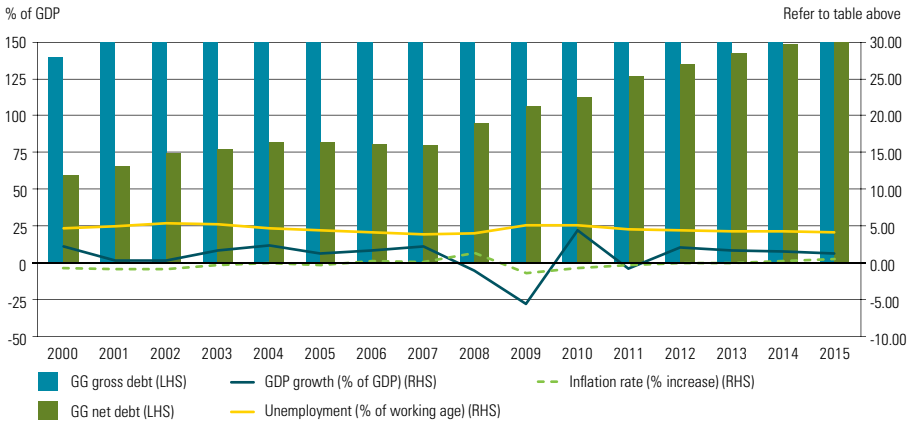
Recent G20 fiscal policy commitments seek to put in place a stable reduction in the ratio of public debt-to-GDP as of 2021. From 2012-21, the focus appears to be on reducing deficits through social security and tax reforms (for example, by increasing consumption taxes to 10 percent).

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	140.15	153.64	163.99	169.57	180.66	186.44	186.00	183.01	191.81	210.25	215.30	229.77	235.83	241.15	245.61	249.74	2010
GG net debt (LHS)	59.60	65.51	74.50	77.56	82.41	82.15	81.03	80.49	95.28	106.19	112.79	126.63	135.19	142.70	149.07	155.00	2010
GDP growth (% of GDP) (RHS)	2.26	0.36	0.29	1.69	2.36	1.30	1.69	2.19	-1.04	-5.53	4.44	-0.75	2.04	1.71	1.53	1.30	2011
Unemployment (% of WA) (RHS)	4.72	5.03	5.36	5.25	4.72	4.43	4.13	3.85	3.99	5.07	5.06	4.55	4.50	4.35	4.31	4.15	2010
IR (% increase) (RHS)	-0.65	-0.80	-0.90	-0.25	-0.01	-0.27	0.24	0.06	1.37	-1.35	-0.72	-0.28	0.00	0.04	0.30	0.53	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 35.5 percent to 50.3 percent. This ratio is the highest of any G20 country and is one of the key factors to understanding the long declining state of Japan's public finances.

Fiscal policy and strategy

The rate of population aging in Japan has further compounded its fiscal sustainability problem.

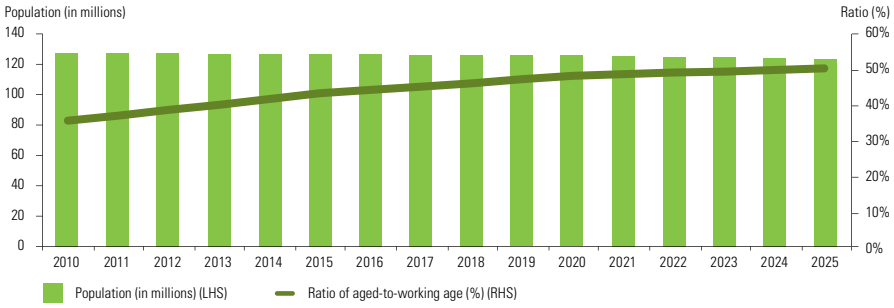
For example, until the 1990s, the major contributing factor to rising government expenditure was public investment. However, after 1990, there was a reversal in this trend, with the share of social security transfers increasing over time. This is evidenced by the increase in payments for social security transfers, which were 10 percent of GDP in 1993 and then jumped to nearly 20 percent of GDP in 2009. With the ratio of aged persons over the 2010-25 time frame rising to 50.3 percent, it will be difficult for the Japanese government to bring about any marked restoration in their public finances.

National population and working age profile

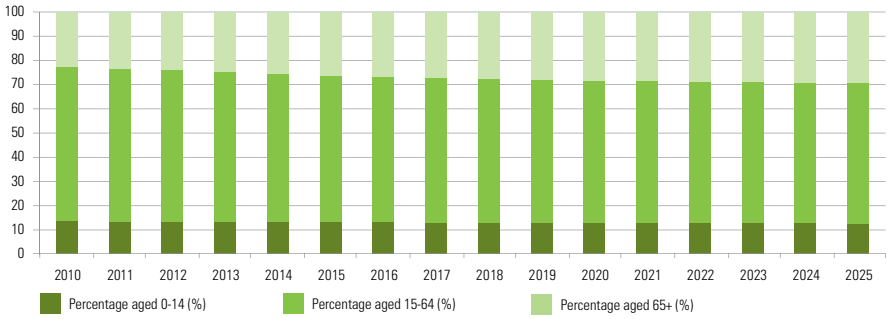
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	127.59	127.50	127.42	127.33	127.24	127.15	126.89	126.64	126.39	126.13	125.88	125.47	125.05	124.64	124.23	123.82	(in millions)
Aged 0-14 (%)	13.4%	13.3%	13.2%	13.2%	13.1%	13.0%	12.9%	12.9%	12.8%	12.8%	12.7%	12.7%	12.6%	12.6%	12.5%	12.5%	
Aged 15-64 (%)	63.9%	63.3%	62.6%	62.0%	61.3%	60.7%	60.3%	60.0%	59.6%	59.3%	58.9%	58.8%	58.6%	58.5%	58.3%	58.2%	
Aged 65+ (%)	22.7%	23.4%	24.1%	24.9%	25.6%	26.3%	26.7%	27.1%	27.6%	28.0%	28.4%	28.6%	28.8%	28.9%	29.1%	29.3%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	35.5%	37.0%	38.5%	40.1%	41.7%	43.3%	44.3%	45.2%	46.2%	47.2%	48.2%	48.6%	49.1%	49.5%	49.9%	50.3%	41.7%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Korea

(Republic of South Korea)

Introduction

Korea is a republic with powers shared between the executive, the legislature, and the judiciary. The executive branch consists of the president (chief of state), elected for a single 5-year term, and the prime minister, who is the head of government. The legislature is unicameral, with the National Assembly elected every 4 years. The judicial branch consists of the Supreme Court and the Constitutional Court, which is an appellate court. The Ministry of Finance and Strategy is responsible for the overall fiscal policy functions, which include planning and management of policies for treasury, government accounting and national debt.

Budget cycle

Fiscal trends

Budget cycle data shows that South Korea has maintained net fiscal lending/borrowing at sustainable levels. The years 2000 through to the onset of the GFC (2007) show a string of moderate surplus results ranging between +4.38 percent of GDP (2000) and +0.10 percent of GDP (2004). The years 2008-15 show a continuing string of small surpluses ranging between +2.83 percent of GDP (2014) and +0.02 percent of GDP (2009) as the economy is managed through the budget cycle.

South Korea is the only G19 country in this study that has maintained (and is expected to maintain) an unbroken stream of general government net fiscal lending (surplus) results throughout the period from 2000-15.

Fiscal policy and strategy

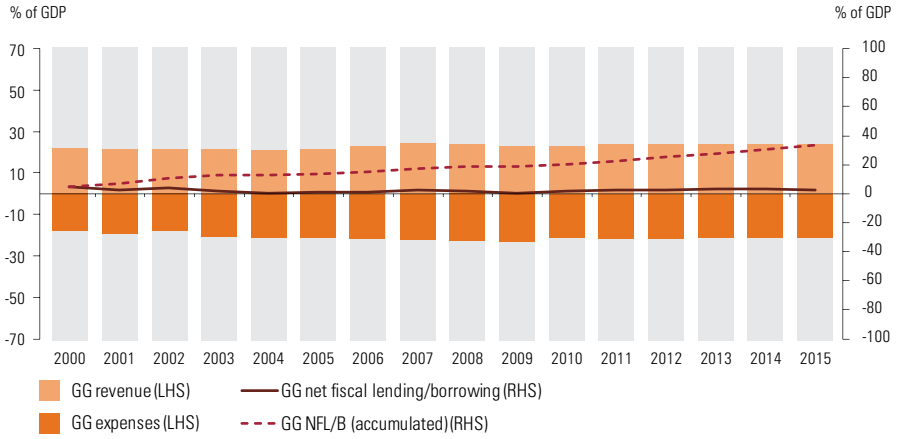
Recent G20 fiscal policy commitments by the South Korean government include the need to both pursue fiscal consolidation as well as expand the taxation base under the general direction of 'broad base and low rates'. The South Korean government has also flagged its intention to move from GFS 1986 to GFS 2001 as part of the continuing journey of improving the quality of government statistical and financial reporting.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	22.32	21.78	21.57	21.93	21.19	21.79	22.68	24.21	24.03	23.05	22.65	23.98	23.98	24.02	24.04	24.05	2010
GG expenses (LHS)	-17.95	-19.06	-17.93	-20.22	-21.10	-20.88	-21.54	-21.89	-22.39	-23.03	-21.00	-21.66	-21.60	-21.19	-21.21	-21.25	2010
Net GGR/E	4.38	2.72	3.64	1.71	0.10	0.91	1.14	2.32	1.64	0.02	1.65	2.32	2.38	2.83	2.83	2.80	
GG NFL/B (RHS)	4.38	2.72	3.64	1.71	0.10	0.91	1.14	2.32	1.64	0.02	1.65	2.32	2.38	2.83	2.83	2.80	2010
GG NFL/B (A) (RHS)	4.38	7.10	10.74	12.45	12.55	13.46	14.60	16.92	18.56	18.58	20.23	22.55	24.93	27.76	30.59	33.39	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that successive South Korean governments have managed to keep the levels of gross debt at less than 35 percent of GDP for the period from 2000-15. The period from 2000-07 shows a rising gross debt balance from 18.02 percent of GDP (2000) to 30.66 percent of GDP (2007). Following the onset of the GFC, the levels of gross debt continued to increase, rising to an estimated peak of 34.14 percent of GDP (2011). Both by way of announced commitment and published estimates, the South Korean government estimates that general government gross debt will reduce to 26.74 percent of GDP by 2015. Net debt figures were not available.

Fiscal policy and strategy

South Korea's experience arising from the Asian financial crisis of 1997 led to the implementation of four major reforms to induce fiscal disciplines, including the introduction of:

- a medium-term expenditure framework
- a top-down budgeting framework with autonomy to line ministries
- a performance management system of accountability
- an improved accounting system.

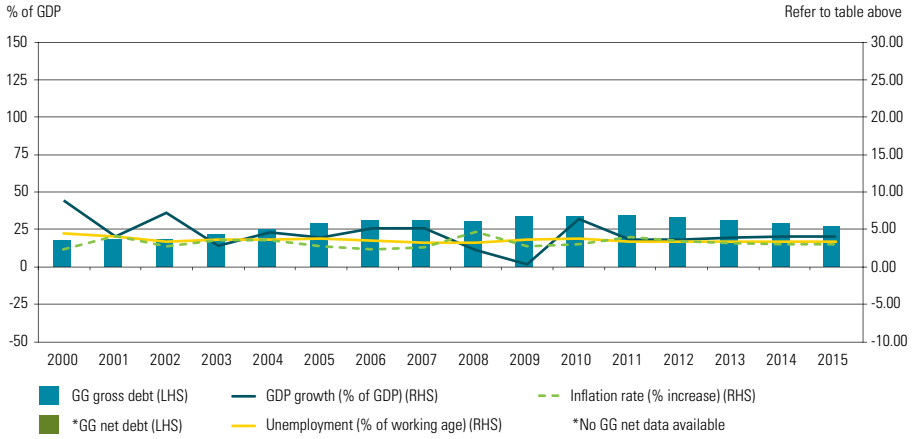
These reforms were implemented during 2000-06 and delivered successful results. Current reforms and fiscal commitments include the establishment of an early warning system to detect and manage the fiscal sustainability of local governments and the intent to reduce gross debt to pre-GFC levels by 2015, thereby placing it a little lower than the latest estimates reported to the IMF.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	18.02	18.70	18.56	21.62	24.63	28.66	31.12	30.66	30.11	33.77	33.43	34.14	32.88	30.83	28.71	26.74	2010
*GG net debt (LHS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GDP growth (% of GDP) (RHS)	8.80	3.97	7.15	2.80	4.62	3.96	5.18	5.11	2.30	0.32	6.32	3.63	3.55	3.95	4.00	4.02	2010
Unemployment (% of WA) (RHS)	4.43	4.02	3.28	3.57	3.68	3.73	3.47	3.25	3.18	3.65	3.73	3.41	3.30	3.30	3.30	3.30	2010
IR (% increase) (RHS)	2.26	4.07	2.76	3.52	3.59	2.75	2.24	2.54	4.67	2.76	2.94	4.03	3.39	3.16	3.00	3.00	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15

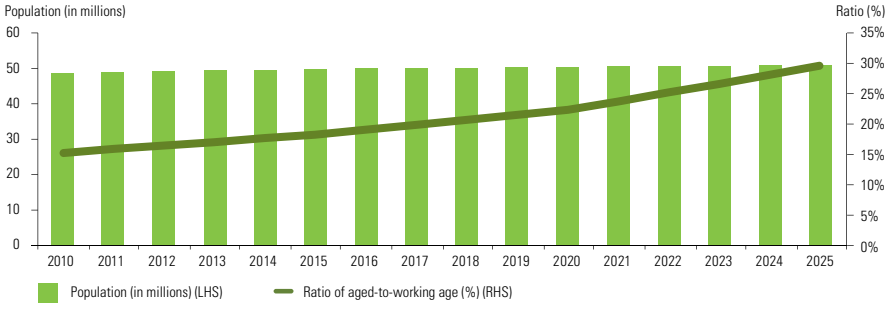


National population and working age profile

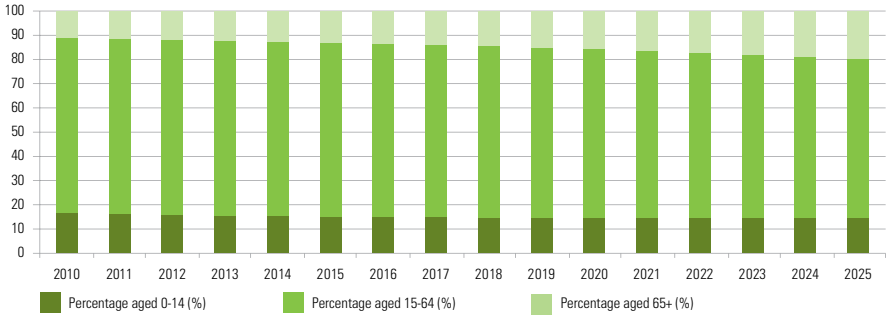
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	48.88	49.07	49.26	49.45	49.64	49.84	49.98	50.12	50.26	50.40	50.54	50.62	50.71	50.80	50.88	50.97	(in millions)
Aged 0-14 (%)	16.4%	16.0%	15.7%	15.3%	15.0%	14.6%	14.5%	14.5%	14.4%	14.4%	14.3%	14.3%	14.3%	14.3%	14.3%	14.3%	
Aged 15-64 (%)	72.5%	72.4%	72.4%	72.3%	72.3%	72.2%	71.8%	71.3%	70.9%	70.4%	70.0%	69.2%	68.4%	67.7%	66.9%	66.1%	
Aged 65+ (%)	11.1%	11.5%	11.9%	12.4%	12.8%	13.2%	13.7%	14.2%	14.7%	15.2%	15.7%	16.5%	17.3%	18.0%	18.8%	19.6%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	15.3%	15.9%	16.5%	17.1%	17.7%	18.3%	19.1%	19.9%	20.7%	21.6%	22.4%	23.8%	25.2%	26.7%	28.1%	29.7%	93.7%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 15.3 percent to 29.7 percent. This ratio increase, essentially a doubling in 15 years, shows the intergenerational fiscal wave that South Korea is facing over the intergenerational cycle.

Fiscal policy and strategy

South Korea's spending on aged benefits is expected to increase rapidly over the next few decades, from 3.4 percent of GDP in 2007 to 14.7 percent of GDP by 2040. As part of the planning for this rising fiscal challenge, the South Korean government established a Long-Term Fiscal Outlook Council in December 2011 and is committing to the preparation of a *Long-Term Fiscal Outlook* report by 2013 which will assess the intergenerational fiscal position out to 2060.

Country profile:

Mexico

Introduction

Mexico is a federal republic that was established in 1824. Its current constitution came into effect in 1917. The federal government has three branches: executive, legislative and judicial. The executive branch consists of the president (chief of state and head of government) elected for a single 6-year term. The legislative branch is bicameral in nature, comprising both a Senate (128 members) and a Chamber of Deputies (500 members). Senate elections are held every 6 years whereas the Chamber of Deputies is elected every 3 years. The 31 states of Mexico are constitutionally sovereign and are required to have a republican form of government with executive power exercised through a governor (elected for a single 6-year term) and legislative power exercised through a unicameral Congress (elected every 3 years).

Budget cycle

Fiscal trends

Budget cycle data shows that Mexico has maintained net fiscal lending/borrowing at sustainable levels for a developing economy. The years 2000 through to the onset of the GFC (2007) show moderate deficits of between -3.55 percent of GDP (2002) and -1.00 percent of GDP (2006). The years 2008-15 show a continuing string of modest deficits between a peak of -4.67 percent of GDP (2009) and a return to trend levels of -2.06 percent of GDP by 2015 as the economy is managed through the budget cycle.

Fiscal policy and strategy

Important fiscal policy related legislation was passed in the period 2006-08 and included:

- the *Federal Budget and Fiscal Responsibility Law* (2006), which, among other things, created the balanced budget rule
- the *Integral Fiscal Reform* (2007), which established a framework for performance budgeting and the *ISSSTE Law Reform* (2007), which addressed the sustainability of the ISSSTE pension fund (the fund's defined benefit arrangements were changed to defined contribution arrangements)
- the *General Fiscal Accounting Law* (2008), which aims to better harmonize accounting and budgeting across all levels of government.

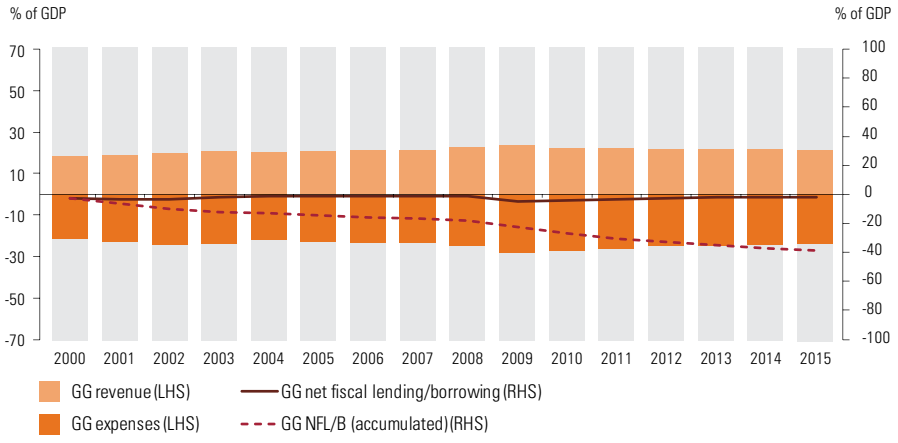
Mexico aims to achieve its fiscal deficit target based on tax reforms which would enhance its revenues. It also plans to reduce its dependence on oil revenues which are historically more volatile in nature.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	18.55	19.17	20.36	21.18	20.66	21.06	21.82	21.97	23.50	23.64	22.63	22.79	22.17	22.20	22.17	21.75	2010
GG expenses (LHS)	-21.61	-22.34	-23.91	-23.43	-22.00	-22.45	-22.82	-23.15	-24.61	-28.31	-26.93	-26.21	-24.54	-24.35	-24.29	-23.82	2010
Net GGR/E	-3.06	-3.17	-3.55	-2.25	-1.34	-1.38	-1.00	-1.18	-1.11	-4.67	-4.30	-3.42	-2.38	-2.15	-2.12	-2.06	
GG NFL/B (RHS)	-3.06	-3.17	-3.55	-2.25	-1.34	-1.38	-1.00	-1.18	-1.11	-4.67	-4.30	-3.42	-2.38	-2.15	-2.11	-2.06	2010
GG NFL/B (A) (RHS)	-3.06	-6.23	-9.77	-12.03	-13.37	-14.75	-15.74	-16.92	-18.03	-22.71	-27.01	-30.43	-32.80	-34.96	-37.07	-39.13	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Mexico has maintained the level of gross debt from 42.58 percent of GDP (2000) to an estimated 43.06 percent of GDP (2015). During this same time frame, the level of net debt has gone from 36.49 percent of GDP (2000) to an estimated 39.87 percent of GDP (2015).

Fiscal policy and strategy

Article 73 VIII of the Mexican constitution provides that the Congress has the power "to fix the bases upon which the President of the Republic may borrow on the credit of the Nation; to approve such loans and to acknowledge and order payment of the national debt". And that further, "No loan may be effected except for the construction of works which directly produce an increase in the public revenues unless for purposes of currency regulation, conversion operations or loans contracted during some emergency declared by the President of the Republic ..."

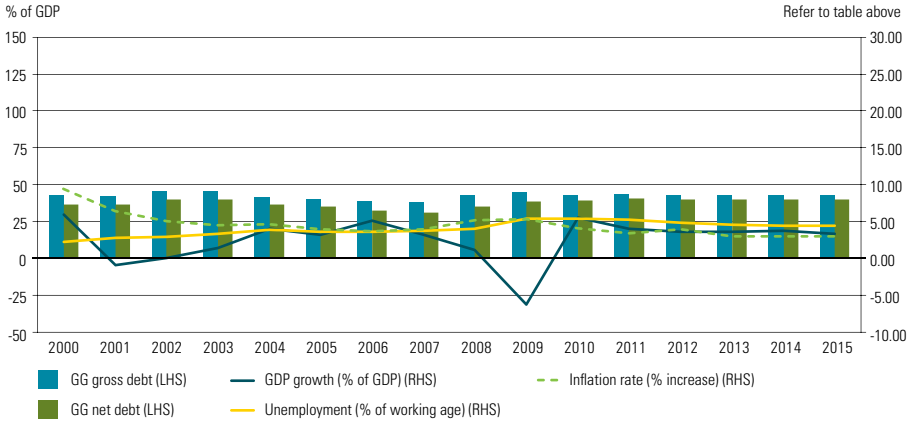
Further to these constitutional provisions, Mexico's balanced budget rule also mandates a stable public debt target as a percentage of GDP. Medium term fiscal policy focus is to build sustainability around non-oil based revenue arrangements, thereby better managing the impacts of oil price fluctuations.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	42.58	41.97	45.69	45.58	41.42	39.84	38.35	37.83	43.11	44.58	42.87	43.81	42.85	42.95	42.95	43.06	2010
GG net debt (LHS)	36.49	36.49	40.07	40.09	36.80	35.20	32.44	31.13	35.58	38.95	39.26	40.42	39.74	39.78	39.78	39.87	2010
GDP growth (% of GDP) (RHS)	5.98	-0.92	0.08	1.37	4.03	3.18	5.15	3.24	1.19	-6.28	5.54	3.97	3.60	3.65	3.81	3.31	2010
Unemployment (% of WA) (RHS)	2.20	2.76	2.98	3.40	3.92	3.59	3.59	3.71	3.97	5.45	5.37	5.23	4.80	4.60	4.50	4.50	2010
IR (% increase) (RHS)	9.49	6.37	5.04	4.55	4.69	3.99	3.63	3.97	5.13	5.30	4.16	3.40	3.90	3.05	2.99	3.02	2010

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 9.8 percent to 14.7 percent. Mexico is in the lower aged ratio cohort of the G20 group of countries, with population aging being more of an emerging issue in the 2025-50 time frame.

Fiscal policy and strategy

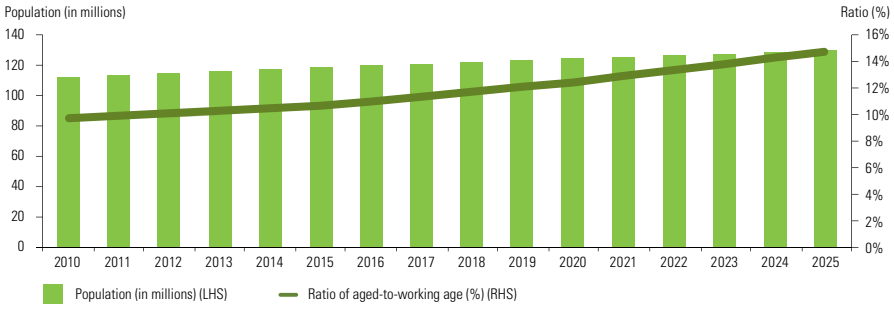
While the fiscal and budget framework reforms of recent years are notable and commendable (including the medium-term fiscal framework of 3-5 years, the introduction of program budgeting, tax and pension reform and improvements to fiscal arrangements with state governments), the OECD cites the need for Mexico to pursue further improvements to fiscal sustainability in the area of measuring and responding to the longer term intergenerational fiscal pressures that accrue to an aging population (notably in the area of rising health and aged-care costs).

National population and working age profile

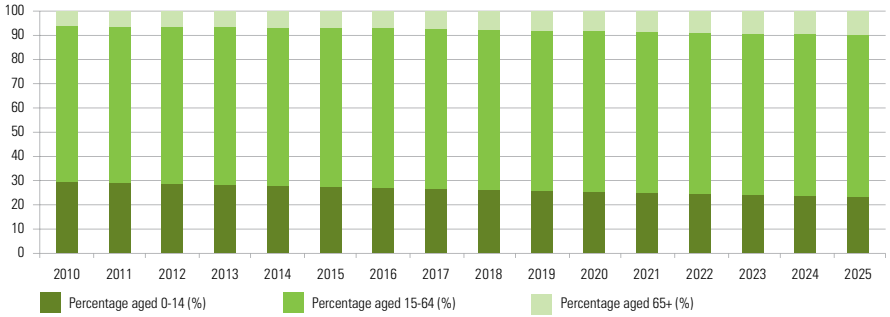
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	112.32	113.60	114.89	116.20	117.53	118.87	120.01	121.16	122.32	123.50	124.68	125.68	126.69	127.70	128.72	129.75	(in millions)
Aged 0-14 (%)	29.1%	28.7%	28.3%	28.0%	27.6%	27.2%	26.8%	26.3%	25.9%	25.4%	25.0%	24.6%	24.2%	23.7%	23.3%	22.9%	
Aged 15-64 (%)	64.6%	64.8%	65.1%	65.3%	65.6%	65.8%	66.0%	66.2%	66.3%	66.5%	66.7%	66.8%	66.9%	67.0%	67.1%	67.2%	
Aged 65+ (%)	6.3%	6.4%	6.6%	6.7%	6.9%	7.0%	7.3%	7.5%	7.8%	8.0%	8.3%	8.6%	8.9%	9.3%	9.6%	9.9%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	9.8%	9.9%	10.1%	10.3%	10.5%	10.6%	11.0%	11.4%	11.7%	12.1%	12.4%	12.9%	13.4%	13.8%	14.3%	14.7%	51.1%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Russia

Introduction

The Russian government is comprised of executive, legislative and judicial branches. The executive branch consists of the president and prime minister while the legislative branch consists of the Federal Assembly. The parliament is bicameral in nature, consisting of two houses: the State Duma and the Council of Federation. The Duma has 450 members and is elected directly by universal suffrage. The Council of Federation is elected by the 85 constituent regions of the Russian Federation. The judicial branch is made up of the Constitutional Court, Supreme Court, Supreme Court of Arbitration and the Office of Procurator General.

Budget cycle

Fiscal trends

Budget cycle data shows that Russia has maintained net fiscal lending/borrowing at sustainable levels. The years 2000 through to the onset of the GFC (2007) show a series of small to sizeable surplus results ranging from between +8.33 percent of GDP (2006) to +0.72 percent of GDP (2002). While there was a continuing surplus in 2008, the years 2009 and 2010 saw a notable deficit response to the GFC of -6.31 percent and -3.51 percent of GDP respectively. The forward estimates period (2012-15) shows a series of small deficits/surpluses ranging between +0.59 percent of GDP (2012) and -1.58 percent of GDP (2015) as the economy is managed through the budget cycle.

Fiscal policy and strategy

Budgeting procedures in Russia have undergone a transformation since the introduction of the *Budget Code* in 1998. Revisions to the Code were undertaken between 2003 and 2007. The Code sets out:

- the annual budget laws and prescribes the annual budget preparation and execution time schedule
- federal and regional government responsibilities, and regulates their financial relations
- a single Treasury account and (in the 2007 revision) regulations relating to a deficit target for the non-oil and gas revenue and expenditure (at 4.7 percent of GDP)*
- a medium-term fiscal framework including the requirement for 3-year budgets.

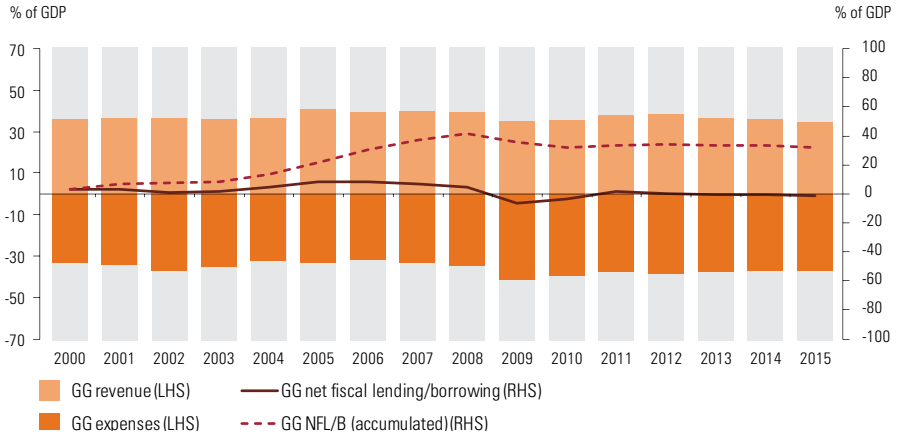
It is important to note the Russian government's dependence on, and the part played by, oil and gas revenue in terms of its overall revenue base. The vulnerability of this revenue to world oil price fluctuations is evident in the Russian government's forward estimates and the IMF has recently stressed the importance of strengthening the fiscal framework in Russia to specifically focus on the non-oil fiscal balances and not just the overall fiscal balance.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	36.17	36.92	36.99	36.38	36.65	40.96	39.48	39.86	39.17	35.04	35.50	38.36	38.72	36.80	36.01	34.87	2011
GG expenses (LHS)	-32.84	-33.71	-36.27	-34.93	-31.75	-32.80	-31.15	-33.10	-34.30	-41.35	-39.00	-36.80	-38.14	-37.14	-36.55	-36.45	2011
Net GGR/E	3.33	3.21	0.72	1.45	4.90	8.16	8.33	6.75	4.87	-6.31	-3.51	1.56	0.58	-0.34	-0.53	-1.58	
GG NFL/B (RHS)	3.33	3.21	0.72	1.45	4.90	8.16	8.33	6.75	4.88	-6.31	-3.51	1.56	0.59	-0.34	-0.53	-1.58	2011
GG NFL/B (A) (RHS)	3.33	6.53	7.26	8.70	13.60	21.76	30.09	36.84	41.72	35.41	31.90	33.46	34.05	33.71	33.17	31.60	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



*With the onset of the GFC, the deficit targets around the non-oil and gas funding were suspended.

GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Russia has significantly reduced the level of gross debt from 59.86 percent of GDP (2000) to 11.69 percent of GDP (2010). This level of gross debt is also anticipated to continue through the economic cycle with an estimated level of 9.74 percent of GDP for 2015. Net debt figures were not available.

Fiscal policy and strategy

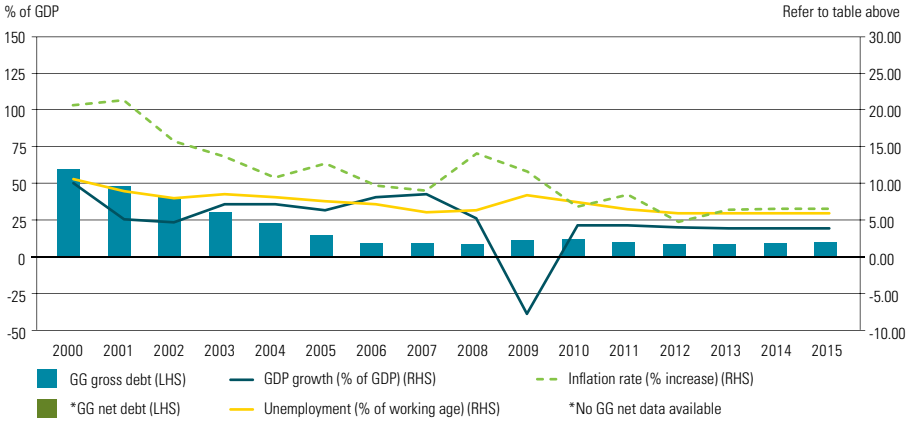
The fiscal frameworks and reforms that have been put in place in recent years have not only been focused around areas such as deficit targets, they have also established rules for public debt. One of the mechanisms that Russia used to manage the surplus revenue from oil (when prices are high) is to set funds aside into either the Reserve Fund (RF) or the National Wealth Fund (NWF). While the RF is used as a general provisioning mechanism, the NWF is a revenue-smoothing mechanism whereby oil and gas revenue can be drawn upon over the medium to long term.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	59.86	47.61	40.31	30.36	22.32	14.24	9.05	8.51	7.88	10.96	11.69	9.60	8.37	7.91	9.02	9.74	2011
*GG net debt (LHS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GDP growth (% of GDP) (RHS)	10.05	5.09	4.74	7.25	7.15	6.39	8.15	8.54	5.25	-7.80	4.30	4.30	4.01	3.93	3.93	3.93	2011
Unemployment (% of WA) (RHS)	10.59	8.94	8.00	8.60	8.20	7.60	7.20	6.10	6.40	8.40	7.50	6.50	6.00	6.00	6.00	6.00	2011
IR (% increase) (RHS)	20.78	21.46	15.78	13.67	10.89	12.68	9.68	9.01	14.11	11.65	6.85	8.44	4.78	6.36	6.50	6.50	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 17.8 percent to 26.4 percent. Russia is in the medium aged ratio cohort of the G20 group of countries with population aging now becoming an emerging issue.

Fiscal policy and strategy

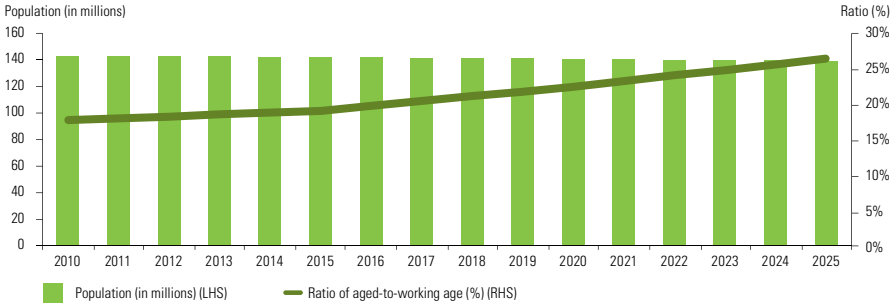
Russia faces long-term fiscal risks from the cost of both health and pensions, as healthcare spending could increase by between 0.7 percent and 1.6 percent of GDP between 2010 and 2030, and various studies estimate that pension spending will increase by 4 percent to 7 percent of GDP by 2030. On average, revenues will have to increase by 1 percent of GDP every 5 years during 2010-50 to meet this budgetary demand.

National population and working age profile

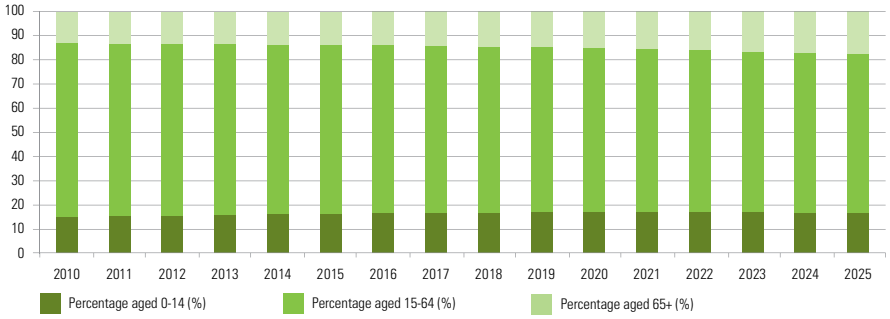
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	142.90	142.76	142.61	142.47	142.33	142.19	141.95	141.70	141.46	141.22	140.98	140.59	140.19	139.80	139.41	139.02	(in millions)
Aged 0-14 (%)	15.1%	15.4%	15.7%	15.9%	16.2%	16.5%	16.7%	16.8%	17.0%	17.1%	17.3%	17.2%	17.1%	17.0%	16.9%	16.8%	
Aged 15-64 (%)	72.1%	71.7%	71.3%	70.9%	70.5%	70.1%	69.6%	69.1%	68.5%	68.0%	67.5%	67.2%	66.8%	66.5%	66.1%	65.8%	
Aged 65+ (%)	12.8%	12.9%	13.0%	13.2%	13.3%	13.4%	13.8%	14.1%	14.5%	14.8%	15.2%	15.6%	16.1%	16.5%	17.0%	17.4%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	17.8%	18.0%	18.3%	18.6%	18.8%	19.1%	19.8%	20.4%	21.1%	21.8%	22.5%	23.3%	24.1%	24.8%	25.6%	26.4%	49.0%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Saudi Arabia

Introduction

Saudi Arabia functions as a monarchy supported by a Council of Ministers and a Consultative Council (Shura). The executive branch consists of the king who is both sovereign and head of government. The legislative branch consists of the Consultative Council (formed in 1993) which has advisory powers. The judicial branch consists of the Supreme Court, Supreme Judicial Council and Islamic Courts of First Instance and Appeals.

Budget cycle

Fiscal trends

Budget cycle data shows that Saudi Arabia has maintained net fiscal lending/borrowing at sustainable levels. The years 2000 through to the onset of the GFC (2007) show a series of moderate to large surplus results ranging from between +24.62 percent of GDP (2006) to -3.31 percent of GDP (2002).

While there was a continuing large surplus in 2008 (34.44 percent of GDP), the following year saw a deficit response of -4.64 percent of GDP, primarily as a result of a drop in oil prices following on the back of the GFC. From 2010, and through to the forward estimates period (2011-2015), a series of continuing surpluses are estimated, ranging from between +16.58 percent of GDP (2012) to +3.17 percent of GDP (2015) as the economy is managed through the budget cycle.

Fiscal policy and strategy

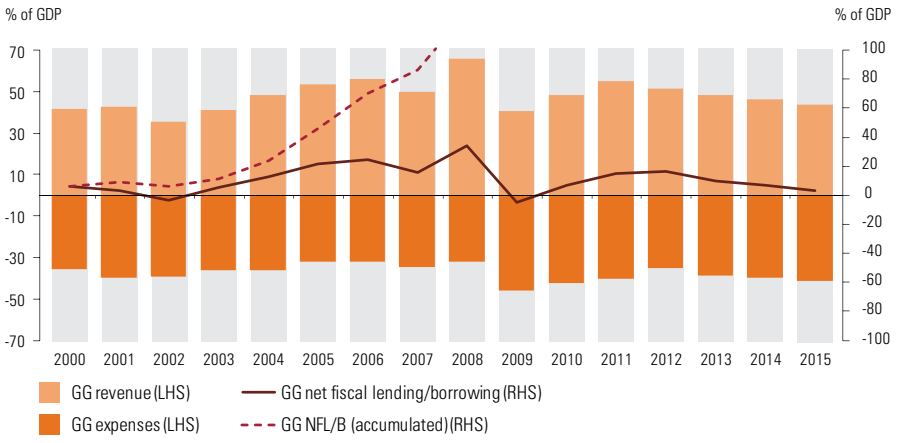
Saudi Arabia, like other oil producing countries, receives the majority (approximately 80-90 percent) of government revenue from oil. Consequently, the extent of any surplus/deficit in any one year is normally more readily explained by reference to world oil prices than any actual attributes of government fiscal policy. Since the stream of oil revenues is expected to continue for many years, the Saudi Arabian government has no immediate need to establish non-oil based sources of revenue. Despite this lack of an immediate fiscal imperative, the Saudi Arabian government's G20 fiscal policy commitments target investment in areas to support education, health, infrastructure and housing, with a focus on strengthening the social safety net and addressing youth unemployment.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	41.78	42.82	35.54	41.39	48.55	53.94	56.58	50.36	66.04	40.96	48.59	55.13	51.69	48.66	46.31	44.09	2010
GG expenses (LHS)	-35.61	-39.59	-38.85	-35.89	-36.10	-32.07	-31.96	-34.60	-31.61	-45.60	-42.04	-39.90	-35.10	-38.57	-39.67	-40.92	2010
Net GGR/E	6.17	3.23	-3.31	5.50	12.44	21.87	24.62	15.76	34.44	-4.64	6.55	15.23	16.58	10.09	6.65	3.17	
GG NFL/B (RHS)	6.17	3.23	-3.31	5.50	12.44	21.87	24.62	15.76	34.44	-4.64	6.55	15.23	16.58	10.09	6.65	3.17	2010
GG NFL/B (A) (RHS)	6.17	9.40	6.08	11.59	24.03	45.90	70.52	86.28	120.72	116.08	122.63	137.86	154.44	164.53	171.18	174.35	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



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NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Saudi Arabia has significantly reduced both the level of gross debt from a high of 96.89 percent of GDP (2002) to an estimated 3.93 percent of GDP (2015), and the level of net debt from a high of 89.01 percent of GDP (2002) to an estimated -73.99 percent of GDP (2015). This reduction in government debt reflects the capacity of the Saudi Arabian government to set aside government oil revenues in order to provision against future shocks, economic or otherwise.

Fiscal policy and strategy

Saudi Arabia has focused on reducing public sector debt and is now in a strong position with accumulated savings that represent a sound 'coverage multiplier' for annual oil revenues. Consequently, fiscal capacity has turned the government's attention to nation-building investment and social safety netting in order to reduce youth unemployment in particular. With these investments comes the broadening of the economic base, and the possibility of broadening the tax base.

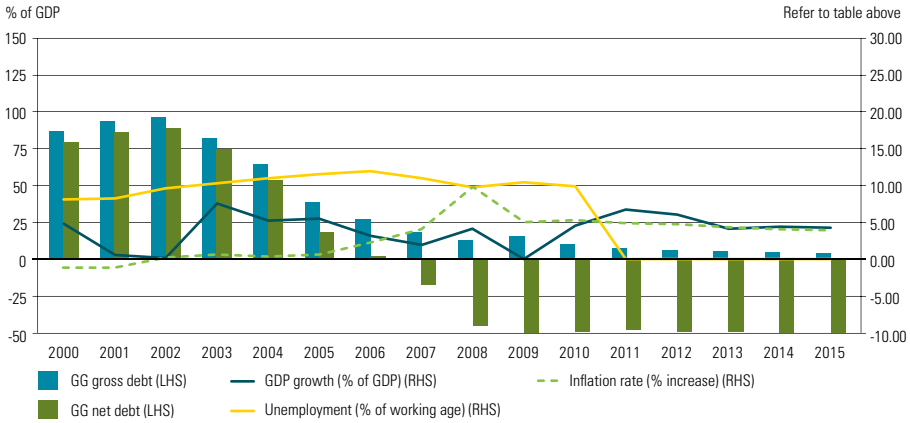
Saudi Arabia, along with other Gulf Cooperation Council (GCC) countries, has also been in discussions regarding a GCC-wide value added tax (VAT). This initiative would be an important step towards the broadening of the tax base away from oil revenues.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	87.18	93.70	96.89	82.03	65.04	38.87	27.30	18.50	13.16	15.94	9.88	7.52	5.94	5.21	4.56	3.93	2010
GG net debt (LHS)	79.64	86.20	89.01	74.84	53.98	18.20	1.68	-17.15	-45.76	-50.18	-49.76	-48.11	-59.23	-67.93	-72.93	-73.99	2010
GDP growth (% of GDP) (RHS)	4.87	0.55	0.13	7.66	5.27	5.55	3.16	2.02	4.23	0.10	4.64	6.78	6.02	4.15	4.38	4.28	2011
Unemployment (% of WA) (RHS)	8.15	8.34	9.66	10.35	11.00	11.52	12.00	11.00	9.80	10.46	10.00	n/a	n/a	n/a	n/a	n/a	2010
IR (% increase) (RHS)	-1.13	-1.12	0.25	0.60	0.36	0.63	2.29	4.12	9.87	5.06	5.35	4.98	4.77	4.41	4.11	4.02	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 4.5 percent to 8.1 percent. This is one of the lower aged ratios of any G20 country.

Fiscal policy and strategy

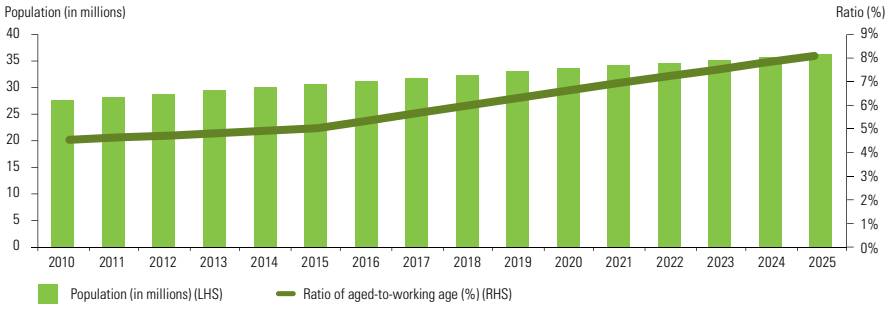
Saudi Arabia's entitlement spending increase on health and pensions is expected to be 2.5 percent and 9 percent of GDP respectively over the period from 2010-50.

National population and working age profile

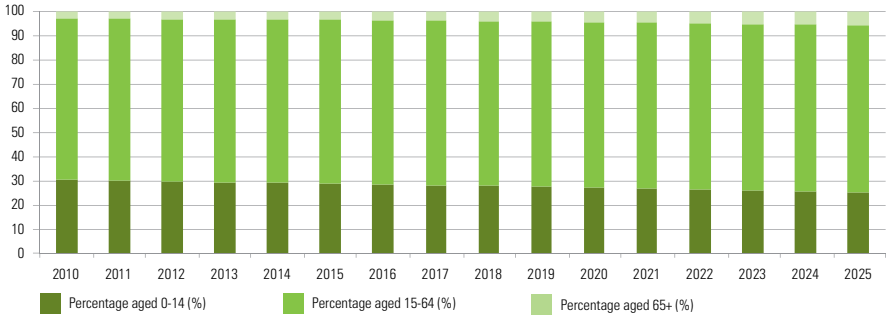
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	27.56	28.15	28.75	29.36	29.99	30.63	31.20	31.78	32.38	32.98	33.60	34.12	34.64	35.18	35.72	36.27	(in millions)
Aged 0-14 (%)	30.4%	30.1%	29.8%	29.5%	29.2%	28.9%	28.6%	28.3%	28.0%	27.7%	27.4%	26.9%	26.5%	26.0%	25.6%	25.1%	
Aged 15-64 (%)	66.6%	66.8%	67.0%	67.3%	67.5%	67.7%	67.8%	67.9%	67.9%	68.0%	68.1%	68.3%	68.6%	68.8%	69.1%	69.3%	
Aged 65+ (%)	3.0%	3.1%	3.2%	3.2%	3.3%	3.4%	3.6%	3.8%	4.1%	4.3%	4.5%	4.7%	4.9%	5.2%	5.4%	5.6%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	4.5%	4.6%	4.7%	4.8%	4.9%	5.0%	5.3%	5.7%	6.0%	6.3%	6.6%	6.9%	7.2%	7.5%	7.8%	8.1%	79.4%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

South Africa

Introduction

South Africa functions as a constitutional parliamentary democracy but with elements of the presidential system. There are three branches of the government. The executive consists of the president who is both head of state and head of government. The legislative branch is a bicameral parliament consisting of a 400-member lower house in the form of the National Assembly of South Africa, and a 90-member upper house in the form of the National Council of Provinces (10 representatives from each of South Africa's nine provinces). The judiciary consists of the Constitutional Court, which interprets and decides constitutional issues and the Supreme Court of Appeal, which is the highest court for interpreting and deciding non-constitutional matters. Different mandates for service delivery and monitoring are assigned to the three different spheres of government, on a local, provincial and national level.

The system of budget preparation is the responsibility of the National Treasury. The Ministry of Finance, the Presidency and the Department of Economic Development have the joint overall responsibility of economic and fiscal policy development. The Presidency has also appointed an independent National Planning Commission, which has been assigned the responsibility to develop a National Development Plan.

Budget cycle

Fiscal trends

Budget cycle data shows that South Africa has maintained net fiscal lending/borrowing at sustainable levels. The years 2000 through to the onset of the GFC (2007) show a series of small deficit and surplus results ranging from between -1.86 percent of GDP (2003) to +1.51 percent of GDP (2007). The period from 2008 through to the forward estimates period (2011-15) shows a series of deficits ranging from a high of -5.30 percent of GDP (2009) through an estimated -2.42 percent of GDP (2015) as the economy is managed through the budget cycle.

Fiscal policy and strategy

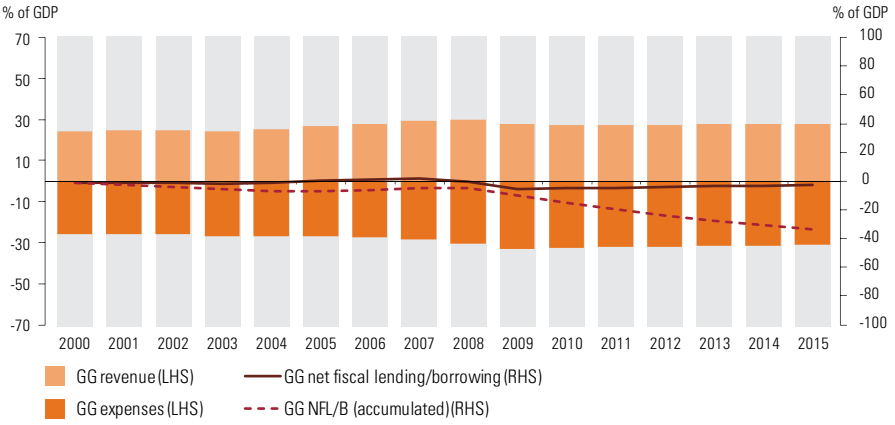
While South Africa's recent G20 fiscal policy commitments differ slightly from those appearing in the following tables, the overall trend of fiscal plans are on track, with the 2015 deficit still expected to be in the order of 3 percent of GDP.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	24.28	24.70	24.70	24.63	25.29	26.84	27.73	29.60	29.79	27.80	27.46	27.45	27.45	27.73	27.96	28.18	2010
GG expenses (LHS)	-25.86	-25.86	-25.81	-26.49	-26.51	-26.84	-26.93	-28.09	-30.25	-33.10	-32.31	-32.02	-31.72	-31.43	-31.07	-30.60	2010
Net GGR/E	-1.58	-1.16	-1.11	-1.86	-1.22	0.00	0.80	1.51	-0.46	-5.30	-4.85	-4.58	-4.27	-3.70	-3.11	-2.42	
GG NFL/B (RHS)	-1.58	-1.16	-1.11	-1.86	-1.22	0.00	0.80	1.51	-0.46	-5.30	-4.85	-4.58	-4.27	-3.70	-3.11	-2.42	2010
GG NFL/B (A) (RHS)	-1.58	-2.74	-3.85	-5.71	-6.93	-6.93	-6.13	-4.62	-5.08	-10.37	-15.22	-19.80	-24.07	-27.76	-30.88	-33.29	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that South Africa has maintained both the level of gross debt from a base of 43.32 percent of GDP (2000) to an estimated 40.66 percent of GDP (2015), and the level of net debt from a base of 42.59 percent of GDP (2000) to an estimated 38.25 percent of GDP (2015).

This maintenance of government debt levels reflects the capacity of the South African government to have set a sustainable medium-term fiscal policy during the economic cycle. However, one of the key challenges of the South African economy remains the stubbornly high level of unemployment, which continues to play its part in social unrest and economic dislocation.

Fiscal policy and strategy

A key reform that guides fiscal management in South Africa is the *Public Finance Management Act* that was enacted in 1999. The act applies to both national and provincial government institutions. Its key objectives are:

- modernization of financial management in the public sector
- making public sector authorities more accountable
- ensuring the timely provision of quality information
- eliminating waste and corruption in the use of public assets.

The other provisions seek to implement uniform standards of accounting across departments and provide more autonomy to major public entities. The overall enforcement of these norms rests with the National Treasury.

Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 7.1 percent to 10.8 percent. This is one of the lower aged ratios of any G20 country.

Fiscal policy and strategy

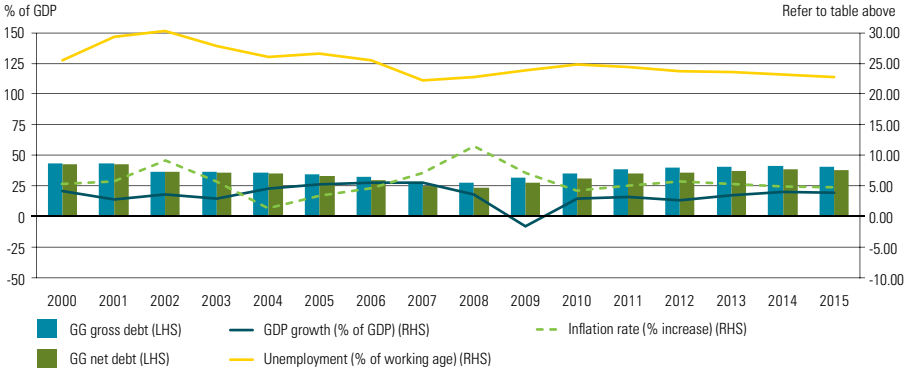
Recent G20 fiscal commitments by the South African government include the preparation of a long-term fiscal report due for publishing at the end of 2012. This report will coincide with the development of fiscal guidelines for long-term debt management and the broader assessment of intergenerational equity issues.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	43.32	43.49	36.95	36.91	35.88	34.62	32.61	28.29	27.36	31.53	35.26	38.77	39.98	40.80	41.50	40.66	2010
GG net debt (LHS)	42.59	43.10	36.48	36.21	35.05	32.97	29.73	24.80	23.42	27.35	31.32	35.05	36.16	37.60	38.82	38.25	2010
GDP growth (% of GDP) (RHS)	4.16	2.74	3.67	2.95	4.56	5.28	5.60	5.55	3.62	-1.54	2.89	3.15	2.65	3.45	3.97	3.93	2010
Unemployment (% of WA) (RHS)	25.61	29.40	30.41	27.96	26.21	26.73	25.54	22.23	22.91	23.94	24.91	24.51	23.81	23.61	23.31	22.81	2010
IR (% increase) (RHS)	5.37	5.70	9.18	5.81	1.39	3.39	4.69	7.09	11.54	7.13	4.27	5.00	5.75	5.33	4.97	4.83	2009

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15

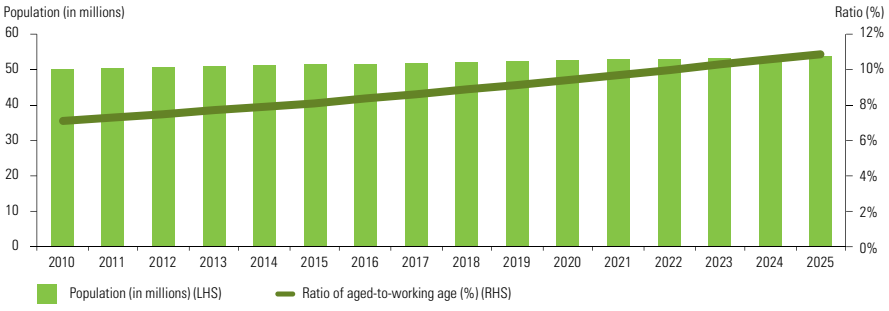


National population and working age profile

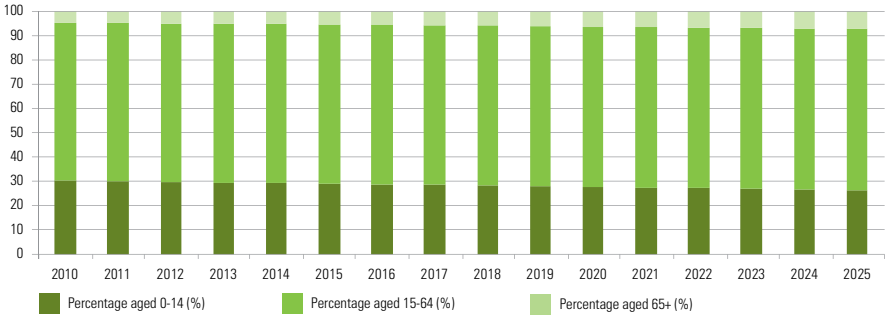
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	49.99	50.25	50.50	50.76	51.02	51.28	51.50	51.73	51.96	52.19	52.42	52.65	52.88	53.11	53.35	53.58	(in millions)
Aged 0-14 (%)	30.2%	30.0%	29.7%	29.5%	29.2%	29.0%	28.7%	28.5%	28.2%	28.0%	27.7%	27.4%	27.2%	26.9%	26.7%	26.4%	
Aged 15-64 (%)	65.2%	65.3%	65.4%	65.5%	65.6%	65.7%	65.8%	65.9%	65.9%	66.0%	66.1%	66.2%	66.2%	66.3%	66.3%	66.4%	
Aged 65+ (%)	4.6%	4.7%	4.9%	5.0%	5.2%	5.3%	5.5%	5.7%	5.8%	6.0%	6.2%	6.4%	6.6%	6.8%	7.0%	7.2%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	7.1%	7.3%	7.5%	7.7%	7.9%	8.1%	8.3%	8.6%	8.9%	9.1%	9.4%	9.7%	10.0%	10.3%	10.6%	10.8%	53.7%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

Turkey

Introduction

Turkey is a democratic republic that achieved independence in 1923. The country's current constitution was formulated in 1982 and has been amended on a number of occasions (1987, 1995, 2001, 2007 and 2010). The government has three branches and exhibits typical 'separation of powers' responsibilities. The executive branch consists of the president as head of state (which, while a largely ceremonial role, has significant reserve powers) and the Council of Ministers headed by a prime minister who is head of government. Cabinet appointment is made by the president on the nomination of the prime minister. The legislative branch is unicameral and consists of the Grand National Assembly (550 members) chosen by national elections at least every 4 years.

Budget cycle

Fiscal trends

Budget cycle data shows that Turkey's net fiscal lending/borrowing has varied throughout the 2000-15 review period. The years 2002 and 2003 saw deficits in the order of -13.91 percent and -10.03 percent of GDP respectively as Turkey came out of a period of hyperinflation and low economic growth. Since that period, and up until the GFC, the levels of deficit were more modest and, in 2006, net fiscal lending/borrowing was zero. The period from 2008 through to the forward estimates period (2011-15) shows a series of deficits ranging from a high of -5.61 percent of GDP (2009) through an estimated -1.63 percent of GDP (2015) as the economy is managed through the budget cycle.

Fiscal policy and strategy

Turkey initiated the process of budget reform after the economic crisis of 2001 with a particular focus on the following objectives:

- widening the coverage of the budget preparation and execution process, and increasing its capacity to assess performance
- enhancing accounting standards, procurement procedures and audit functions
- introducing modern and transparent public liabilities management practices.

Turkey also made changes to its budget and public financial management systems after the findings and recommendations of OECD economic surveys of 2002, 2004 and 2006 and various IMF reports.

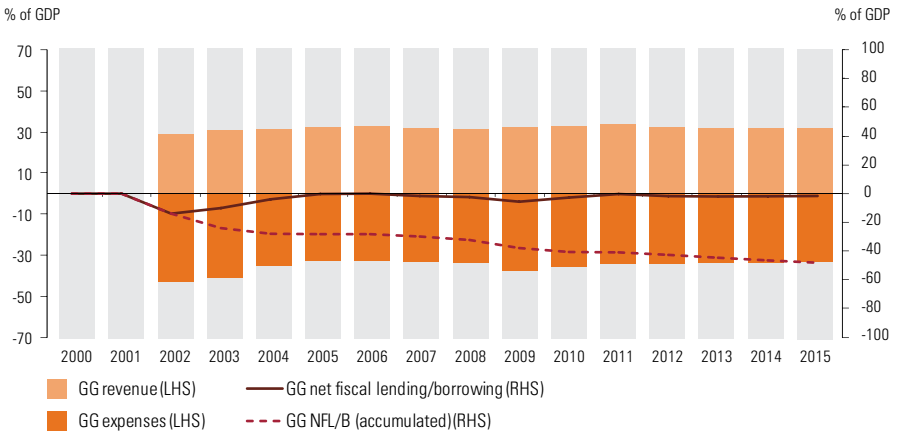
One of the key laws that reformed the budget process in Turkey was the *Public Financial Management and Control Law (PFMC)* introduced in 2003. The purpose of the law was to ensure accountability, transparency and the effective utilization of public resources. Turkey also has inherent institutional mechanisms in place to ensure effective budget preparation and adherence to policy requirements to ensure accountability. The General Directorate of Budget and Fiscal Control of the Ministry of Finance has the overall responsibility for the preparation and review of the budget.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	n/a	n/a	28.75	31.00	31.20	32.37	32.80	31.68	31.44	32.11	32.71	33.91	32.47	31.87	31.64	31.64	2010
GG expenses (LHS)	n/a	n/a	-42.66	-41.03	-35.13	-32.62	-32.79	-33.33	-33.84	-37.72	-35.44	-34.19	-34.21	-33.85	-33.49	-33.27	2010
Net GGR/E	0.00	0.00	-13.91	-10.03	-3.93	-0.26	0.00	-1.65	-2.40	-5.61	-2.73	-0.27	-1.74	-1.98	-1.85	-1.63	
GG NFL/B (RHS)	n/a	n/a	-13.91	-10.03	-3.93	-0.26	0.00	-1.65	-2.40	-5.61	-2.73	-0.27	-1.74	-1.98	-1.85	-1.63	2010
GG NFL/B (A) (RHS)	n/a	n/a	-13.91	-23.94	-27.88	-28.13	-28.13	-29.78	-32.18	-37.79	-40.52	-40.79	-42.53	-44.51	-46.36	-47.99	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that Turkey has reduced both the level of gross debt from a base of 74 percent of GDP (2002) to an estimated 32.81 percent of GDP (2015), and the level of net debt from a base of 70.58 percent of GDP (2002) to an estimated 26.37 percent of GDP (2015). This reduction of government debt levels reflects the capacity of the Turkish government to have sustainable medium term fiscal policy settings in place, particularly over the latter period of the economic cycle. However, one of the key challenges of the Turkish economy remains the levels of sustained high unemployment (approximately 10 percent).

Fiscal policy and strategy

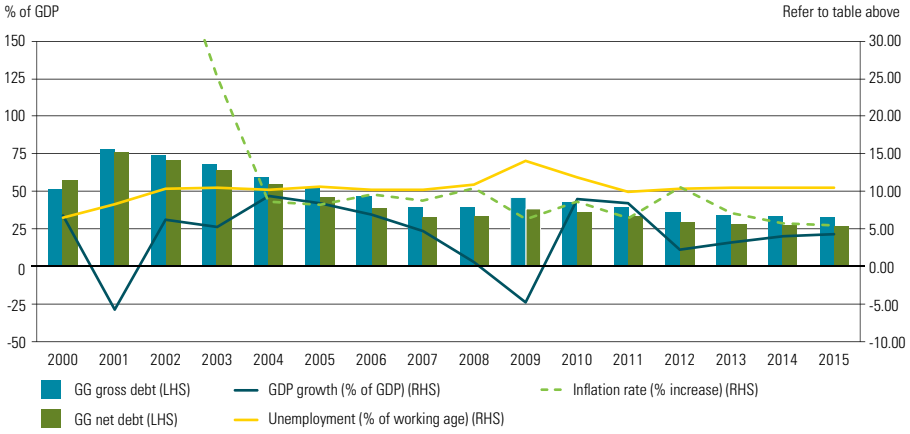
The fiscal policy stance taken by Turkey over the past decade has included a focus on reducing government debt and primary deficits to sustainable levels. According to recent G20 fiscal policy commitments, this focus is expected to continue through to the end of the economic cycle.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	51.56	77.94	74.00	67.70	59.61	52.71	46.52	39.92	40.02	46.12	42.21	39.44	36.04	34.55	33.52	32.81	2010
GG net debt (LHS)	57.54	75.98	70.58	63.97	55.02	45.97	38.98	32.72	33.36	38.52	36.06	33.19	29.71	28.25	27.25	26.37	2010
GDP growth (% of GDP) (RHS)	6.77	-5.70	6.16	5.27	9.36	8.40	6.89	4.67	0.66	-4.83	9.01	8.46	2.29	3.17	4.02	4.34	2010
Unemployment (% of WA) (RHS)	6.50	8.34	10.33	10.50	10.25	10.59	10.21	10.24	10.95	14.03	11.89	9.89	10.33	10.51	10.51	10.51	2010
IR (% increase) (RHS)	55.04	54.25	45.13	25.34	8.60	8.18	9.60	8.76	10.44	6.25	8.57	6.47	10.61	7.06	5.75	5.50	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 8.9 percent to 13.7 percent. This is in the lower aged ratio cohort group of G20 countries.

Fiscal policy and strategy

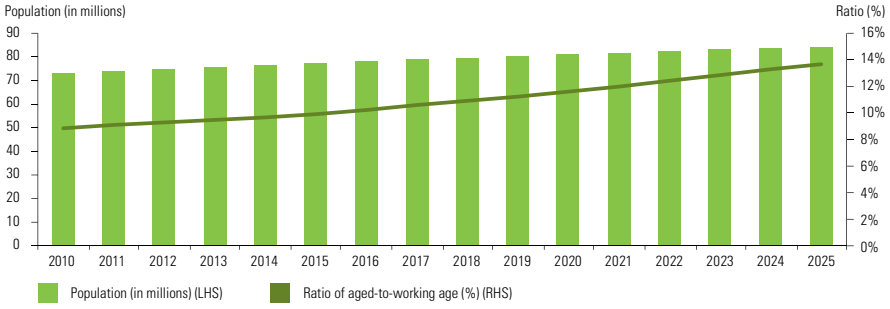
Turkey's entitlement spending increase on health and pensions is projected to increase by 4 percent and 14 percent of GDP respectively over the period from 2010-50. The increase in pension spending is the highest in a set of 22 emerging countries and also exceeds the median spending increase of 4 percent.

National population and working age profile

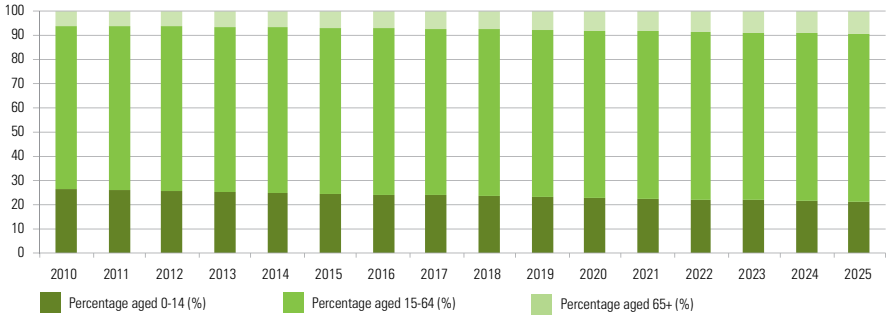
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	73.00	73.84	74.68	75.53	76.39	77.26	77.99	78.74	79.48	80.24	81.00	81.64	82.29	82.94	83.59	84.25	(in millions)
Aged 0-14 (%)	26.4%	26.0%	25.6%	25.3%	24.9%	24.5%	24.2%	23.9%	23.6%	23.3%	23.0%	22.6%	22.2%	21.9%	21.5%	21.1%	
Aged 15-64 (%)	67.6%	67.8%	68.0%	68.3%	68.5%	68.7%	68.8%	68.8%	68.9%	68.9%	69.0%	69.1%	69.2%	69.2%	69.3%	69.4%	
Aged 65+ (%)	6.0%	6.2%	6.3%	6.5%	6.6%	6.8%	7.0%	7.3%	7.5%	7.8%	8.0%	8.3%	8.6%	8.9%	9.2%	9.5%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	8.9%	9.1%	9.3%	9.5%	9.7%	9.9%	10.2%	10.6%	10.9%	11.3%	11.6%	12.0%	12.4%	12.9%	13.3%	13.7%	54.2%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



Age composition of population, years 2010-25



Country profile:

United Kingdom

Introduction

The United Kingdom (UK) operates as a parliamentary democracy headed by a prime minister and a constitutional monarch as head of state. While it has traditionally operated as a single central government covering England, Scotland, Wales and Northern Ireland, referendums in the late 1990s saw the introduction of a devolved form of government whereby a range of government functions were devolved to Scotland, Wales and Northern Ireland. Routinely referred to as a unitary system of government, key government functions such as foreign affairs, defense, social security and macroeconomic settings are maintained centrally.

The UK is a member of the European Union (EU) but it is not a member of the eurozone and therefore maintains its own currency.

Budget cycle

Fiscal trends

Budget cycle data shows that the UK is firmly focused on reducing net fiscal borrowing over the forward estimates period. The years 2000 through to the onset of the GFC (2007) show early surpluses followed by six successive years of deficits ranging from between -1.98 percent of GDP (2002) to -3.38 percent of GDP (2004). The years 2008-15 show the marked deficit-driven response to the GFC as the economy was managed through the 2008-10 budget cycles, with deficits estimated to reduce through to 2015.

Fiscal policy and strategy

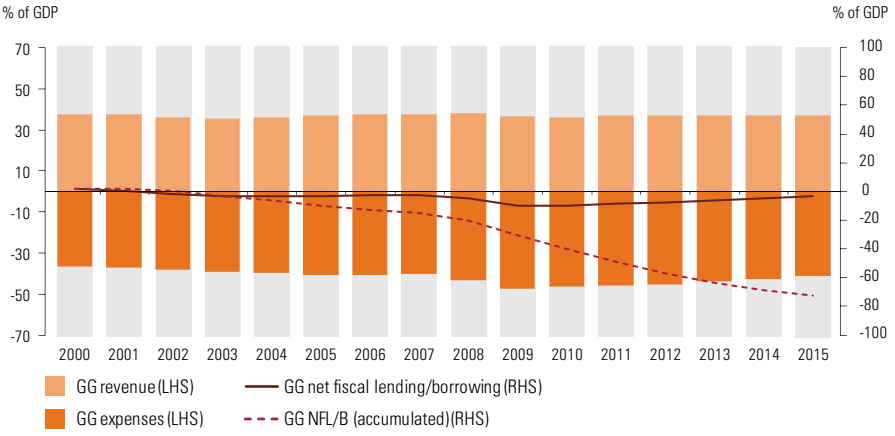
In addition to its well-publicized austerity measures, the UK government has also instituted a number of new mechanisms to address budget responsibility and fiscal sustainability. Perhaps the most notable of these arrangements centers on the introduction of the *Budget Responsibility and National Audit Act 2011* which sets the requirements for a *Charter of Budget Responsibility* as well as establishing an Office of Budget Responsibility (OBR). The Charter sets out both the government's fiscal policy framework and the role of the OBR. The government's fiscal policy framework includes the *Operation of fiscal policy* (requiring the treasury to prepare an annual budget report in a prescribed manner), the *Objective for debt management*, and the *Operation of debt management*.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	37.95	37.81	36.22	35.89	36.40	37.26	37.97	37.63	38.14	36.89	36.47	37.06	37.30	37.20	37.36	37.22	2010
GG expenses (LHS)	-36.61	-37.23	-38.21	-39.20	-39.78	-40.59	-40.61	-40.33	-43.07	-47.27	-46.33	-45.73	-45.25	-43.77	-42.40	-40.87	2010
Net GGR/E	1.35	0.59	-1.98	-3.31	-3.38	-3.34	-2.65	-2.69	-4.93	-10.38	-9.85	-8.66	-7.95	-6.57	-5.04	-3.65	
GG NFL/B (RHS)	1.35	0.59	-1.98	-3.31	-3.38	-3.34	-2.65	-2.69	-4.93	-10.38	-9.85	-8.66	-7.95	-6.57	-5.04	-3.65	2010
GG NFL/B (A) (RHS)	1.35	1.93	-0.05	-3.36	-6.74	-10.07	-12.72	-15.41	-20.34	-30.72	-40.57	-49.24	-57.19	-63.76	-68.80	-72.44	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



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NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that successive UK governments have maintained the level of gross debt between 37 percent and 44 percent of GDP in the period from 2000-07, while the level of net debt was between 32 percent and 38 percent of GDP for the same period. Following the GFC, the levels of gross debt and net debt are estimated to peak in 2014 to an estimated 93 percent and 89 percent of GDP respectively, well in excess of previous trends.

Fiscal policy and strategy

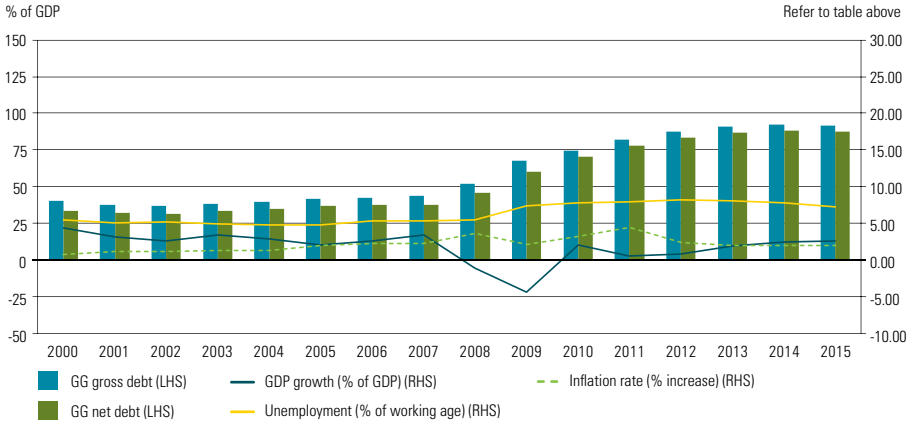
The Charter's stated *Objective for debt management policy* is "to minimize, over the long term, the costs of meeting the government's financing needs, taking into account risk, while ensuring that debt management policy is consistent with the aims of monetary policy". Additionally, the OBR's first annual *Fiscal Sustainability Report (July 2011)* provides an analysis of the sustainability of the public finances based on a stock and flow assessment of both past and future government activity. The stock (balance sheet) perspectives are primarily used for past assessments and flows (revenue and expenses) are primarily used for future assessments.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	40.88	37.71	37.24	38.56	40.25	42.07	43.12	43.91	52.47	68.37	75.12	82.50	88.37	91.37	92.79	92.24	2010
GG net debt (LHS)	33.61	32.19	31.96	33.70	35.51	37.33	37.96	38.13	45.99	60.94	71.10	78.25	84.23	87.18	88.62	88.07	2010
GDP growth (% of GDP) (RHS)	4.46	3.15	2.66	3.53	2.96	2.09	2.61	3.47	-1.10	-4.37	2.09	0.66	0.82	2.03	2.55	2.61	2011
Unemployment (% of WA) (RHS)	5.53	5.11	5.20	5.05	4.79	4.80	5.41	5.40	5.56	7.46	7.86	8.01	8.26	8.18	7.83	7.36	2010
IR (% increase) (RHS)	0.87	1.18	1.27	1.36	1.34	2.04	2.30	2.35	3.63	2.12	3.34	4.45	2.43	2.00	2.00	2.00	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

In the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 25.2 percent to 31.4 percent. Not surprisingly, intergenerational aging plays out as a significant factor for the OBR in their projections, which state that population aging will put upward pressure on public spending by an estimated 5.4 percent of GDP by 2060-61.

Fiscal policy and strategy

Key fiscal sustainability targets and concepts outlined in the OBR's report include:

- consideration of the inter-temporal budget constraint (IBC)

  (The IBC equates to the European Commission's "S2" indicator. The IBC is a long-run measure of revenue less non-interest spending flows which also facilitates revenue coverage of interest and debt over the long term.)

- setting of 'fiscal gap' targets (the OBR modeled net debt settings in the range of 40 percent to 70 percent of GDP)

  (Since the IBC model assumes a zero debt position over the long term, the OBR viewed the setting of a debt reduction target or level as more applicable to fiscal sustainability projections.)

- consideration of intergenerational fairness measurement.

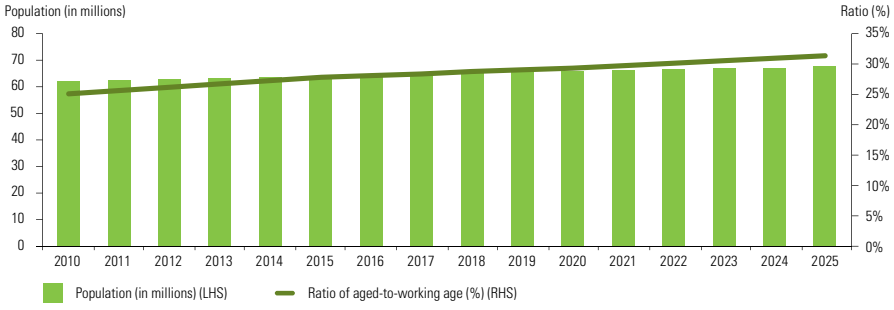
  (The intergenerational fairness measurement used by the OBR shows the net discounted lifetime contribution that people are expected to make to public finances as a function of their age. This is shown as a per capita amount in a table of 5-year age graduations from birth through to 95 and for future generations.)

National population and working age profile

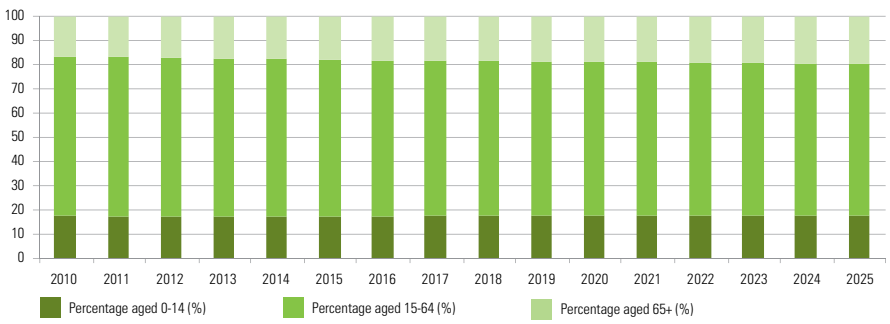
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	62.22	62.60	62.97	63.35	63.73	64.11	64.48	64.86	65.23	65.61	65.99	66.35	66.71	67.07	67.43	67.79	(in millions)
Aged 0-14 (%)	17.4%	17.4%	17.4%	17.3%	17.3%	17.3%	17.4%	17.5%	17.5%	17.6%	17.7%	17.7%	17.7%	17.6%	17.6%	17.6%	
Aged 15-64 (%)	66.0%	65.7%	65.5%	65.2%	65.0%	64.7%	64.5%	64.3%	64.0%	63.8%	63.6%	63.4%	63.2%	63.1%	62.9%	62.7%	
Aged 65+ (%)	16.6%	16.9%	17.2%	17.4%	17.7%	18.0%	18.1%	18.3%	18.4%	18.6%	18.7%	18.9%	19.1%	19.3%	19.5%	19.7%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	25.2%	25.7%	26.2%	26.7%	27.3%	27.8%	28.1%	28.4%	28.8%	29.1%	29.4%	29.8%	30.2%	30.6%	31.0%	31.4%	24.9%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25

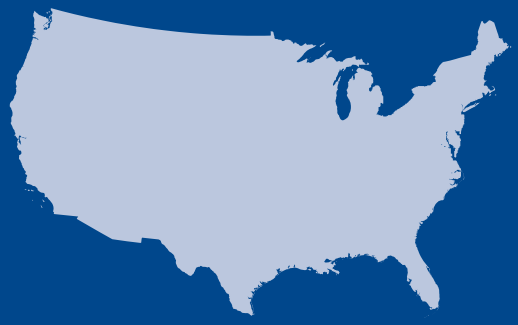


Age composition of population, years 2010-25



Country profile:

United States



Introduction

The United States of America (US) operates under a constitutional republic system comprising a federal (central) government, 50 state governments, various territories and other non-state entities and more than 90,000 local government units. A significant portion (approximately 18 percent of GDP) of total US taxes required by various levels and divisions of government are actually levied and collected by the federal government. Each government jurisdiction has its own legislature or governing body, may levy taxes (although some have restricted taxing powers), operates a treasury and produces budgets (including forward estimates) for the purposes of funding government goods and services.

Budget cycle

Fiscal trends

Budget cycle data shows that the US is continuing to run sizeable deficits with considerable net fiscal borrowing projected over the forward estimates. These estimates do not take into account recent policy adjustments to help curb the 'primary deficit' (revenue less non-interest expenses). However, the major work to address the US deficit remains. Without policy changes the US faces a continuing and rapid growth in debt.

Fiscal policy and strategy

There is a wide recognition that the US government is presently on an unsustainable long-term fiscal path, with the fundamental drivers of fiscal imbalance being a structural gap between revenues and spending, driven largely by the healthcare and retirement costs of an aging population and interest rates that will not remain at current historical lows.

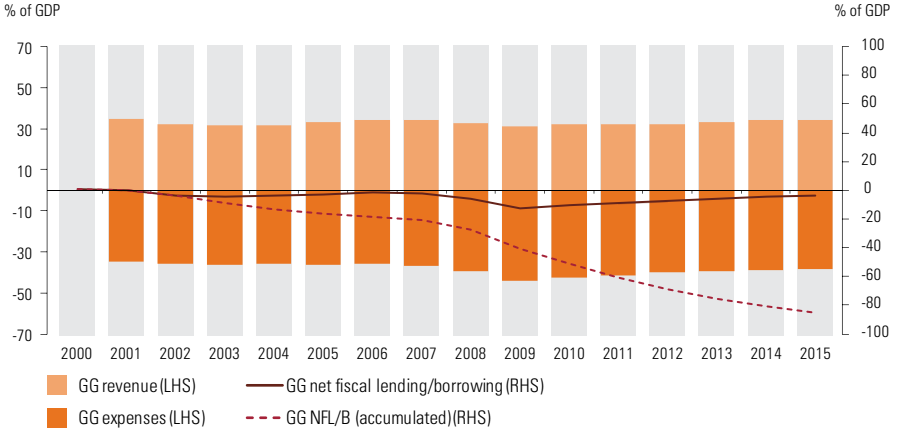
At the end of 2012, the US faced a set of self-imposed deadlines and policy expirations, the so-termed `fiscal cliff.' This confluence included the expiration of tax rate reductions enacted by the Bush Administration and the activation of automatic spending cuts required in the *Budget Control Act of 2011* (BCA). Newly enacted (as of January 2013) US law, which preserves lower tax rates for all but higher income taxpayers and deferred the mandatory BCA spending cuts for 2 months, will precipitate a new deadline in late February 2013. This deadline will combine the necessity to increase the national debt ceiling with pressure for a broader agreement on spending cuts and tax reforms.

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG revenue (LHS)	n/a	34.29	31.83	31.21	31.50	32.96	33.81	33.93	32.51	30.94	31.65	31.84	31.91	32.88	33.66	34.06	2010
GG expenses (LHS)	n/a	-34.56	-35.72	-36.10	-35.89	-36.15	-35.85	-36.67	-39.20	-43.98	-42.14	-41.40	-39.99	-39.20	-38.60	-38.50	2010
Net GGR/E	0.00	-0.27	-3.89	-4.89	-4.39	-3.19	-2.04	-2.75	-6.69	-13.04	-10.49	-9.56	-8.08	-6.32	-4.93	-4.44	
GG NFL/B (RHS)	n/a	-0.27	-3.89	-4.89	-4.39	-3.19	-2.04	-2.75	-6.69	-13.04	-10.49	-9.56	-8.08	-6.32	-4.93	-4.44	2010
GG NFL/B (A) (RHS)	n/a	-0.27	-4.15	-9.04	-13.43	-16.62	-18.66	-21.41	-28.10	-41.14	-51.63	-61.19	-69.27	-75.59	-80.52	-84.96	

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, key fiscal aggregates shown as a percentage of GDP, years 2000-15



GG = General government
LHS = Left-hand side of the chart
RHS = Right-hand side of the chart
Net GGR/E = Net general government revenue/expenses
NFL/B = Net fiscal lending/borrowing
NFL/B (A) = Net fiscal lending/borrowing (accumulated)
GDP = Gross domestic product
WA = Working age
IR = Inflation rate
RAWA = Ratio of aged-to-working age

Economic cycle

Fiscal trends

Economic cycle data shows that the US maintained the level of gross debt between 54.75 percent of GDP (2001) and 68.27 percent of GDP (2004) in the period from 2000-07, while the level of net debt ran between 34.88 percent of GDP (2001) and 49.11 percent of GDP (2004) for the same period. Following the GFC, the levels of gross debt and net debt are estimated to rise to 112.48 percent and 88.29 percent of GDP respectively by 2015, well in excess of previous trends.

Fiscal policy and strategy

The BCA set in place 10-year discretionary expenditure caps and also sought to provide a mechanism for an agreed position on the federal debt ceiling. Even with some restraining elements of the BCA still in place, healthier fiscal policy direction remains unresolved and the pathway to achieving it remains uncertain.

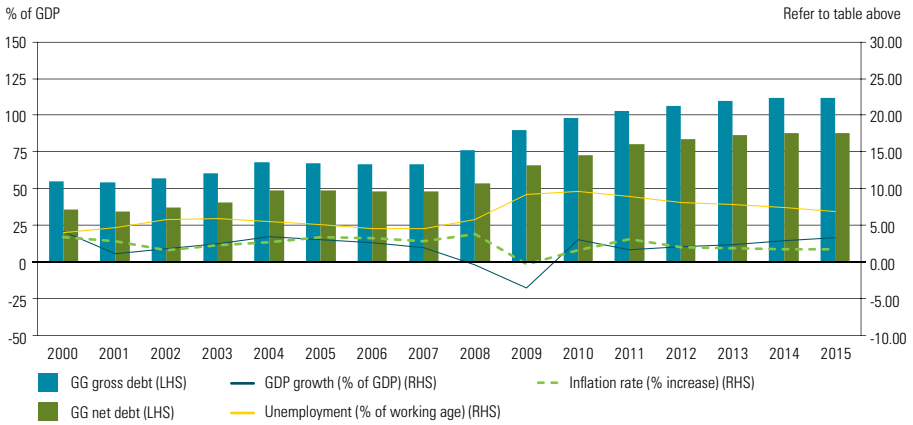
A recent long-term budget simulation by the bipartisan US Government Accountability Office projected that if action is taken today to address the US fiscal gap – so that the government net debt-to-GDP ratio would remain at (the then) 68 percent – then revenue would have to increase by 46 percent or non-interest spending reduced by 32 percent (or some combination thereof). If action is delayed until 2022, these amounts rise to 55 percent and 37 percent respectively.

General government sector, debt shown alongside national economic indicators, years 2000-15

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Estimates start after
GG gross debt (LHS)	54.84	54.75	57.12	60.43	68.27	67.87	66.63	67.16	76.14	89.88	98.52	102.94	106.60	110.17	111.90	112.48	2010
GG net debt (LHS)	35.61	34.88	37.49	40.73	49.11	49.23	48.54	48.15	53.72	65.87	73.10	80.28	83.68	86.73	88.04	88.29	2010
GDP growth (% of GDP) (RHS)	4.14	1.08	1.81	2.54	3.47	3.07	2.66	1.91	-0.34	-3.49	3.03	1.74	2.11	2.37	2.91	3.32	2011
Unemployment (% of WA) (RHS)	3.97	4.74	5.78	5.99	5.54	5.08	4.61	4.62	5.80	9.28	9.63	8.95	8.16	7.88	7.48	6.95	2010
IR (% increase) (RHS)	3.37	2.82	1.60	2.30	2.67	3.37	3.22	2.87	3.82	-0.32	1.64	3.14	2.10	1.87	1.80	1.78	2011

Source: International Monetary Fund, World Economic Outlook Database, April 2012

General government sector, debt shown alongside national economic indicators, years 2000-15



Intergenerational cycle

Fiscal trends

Over the period from 2010-25, the ratio of aged persons (over 65) to those of working age (15-64) will rise from 19.6 percent to 29.2 percent. Not surprisingly, intergenerational aging plays out as a significant factor in the supplemental information provided in the recent *2011 Financial Report of the U.S. Government (FR)* projections which stated that, "The retirement of the baby boom generation over the next 25 years is projected to increase the Social Security, Medicare and Medicaid spending shares of GDP by about 1.4 percentage points, 1.3 percentage points, and 1.0 percentage points respectively".

Fiscal policy and strategy

US Statement of Federal Financial Accounting Standards (SFFAS) 36 Reporting addresses the *Comprehensive Long-Term Fiscal Projections for the US Government* and requires:

"A consolidated financial report (CFR) of the US government presenting for all activities of the federal government:

- the present value of projected receipts and non-interest spending under current policy without change,
- the relationship of these amounts to projected Gross Domestic Product (GDP), and
- changes in the present value of projected receipts and non-interest spending from the prior year."

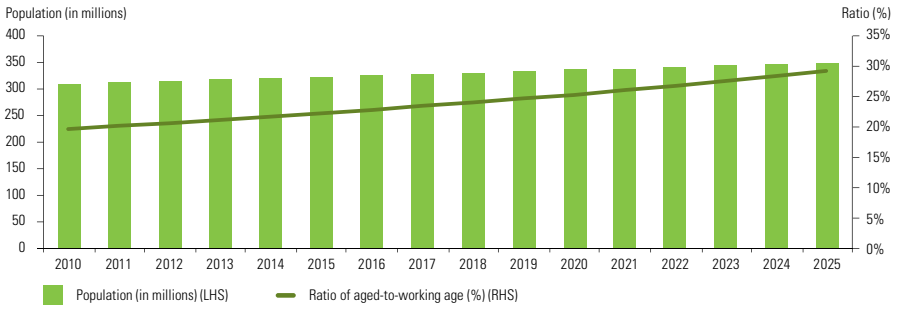
SFFAS 36 uses the concept of 'fiscal gap', or "the change in non-interest spending and/or receipts that would be necessary to maintain public debt at or below a target percentage of gross domestic product (GDP)". The long-term projection period is set at 75 years and projections include the impact of delays in fiscal consolidation 10 and 30 years out.

National population and working age profile

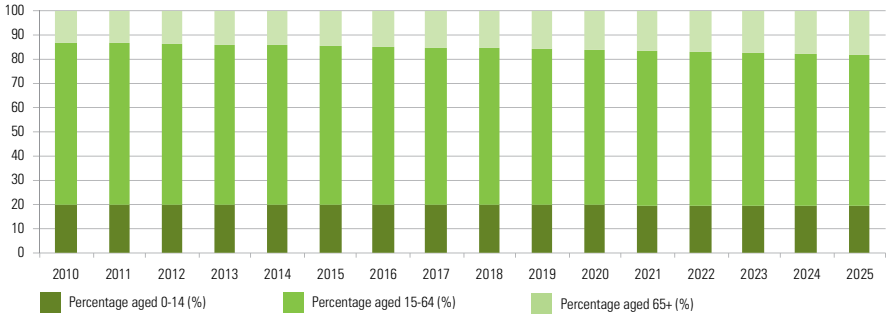
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Population (LHS)	309.73	312.36	315.02	317.70	320.40	323.12	325.71	328.31	330.94	333.59	336.25	338.74	341.25	343.77	346.32	348.88	(in millions)
Aged 0-14 (%)	20.1%	20.1%	20.1%	20.1%	20.1%	20.1%	20.0%	20.0%	19.9%	19.9%	19.8%	19.7%	19.6%	19.6%	19.5%	19.4%	
Aged 15-64 (%)	66.8%	66.5%	66.2%	66.0%	65.7%	65.4%	65.1%	64.8%	64.6%	64.3%	64.0%	63.7%	63.4%	63.0%	62.7%	62.4%	
Aged 65+ (%)	13.1%	13.4%	13.7%	13.9%	14.2%	14.5%	14.8%	15.2%	15.5%	15.9%	16.2%	16.6%	17.0%	17.4%	17.8%	18.2%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	% Change
RAWA (RHS)	19.6%	20.1%	20.6%	21.1%	21.7%	22.2%	22.8%	23.4%	24.0%	24.7%	25.3%	26.1%	26.8%	27.6%	28.4%	29.2%	48.7%

Source: World Population Prospects: The 2010 Revision, http://esa.un.org/unpd/wpp/index.htm

Population and profile of aged-to-working age ratio, years 2010-25



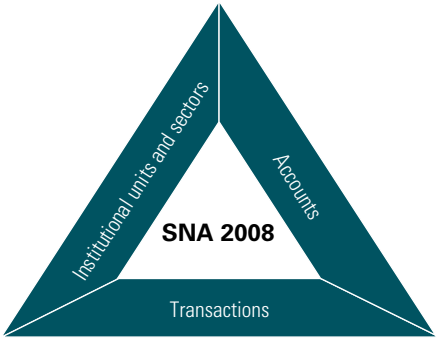
Age composition of population, years 2010-25



Appendix A: About the SNA and GFS

Figure 6: Context diagram for SNA sectors

The System of National Accounts (SNA) comprises two institutional units (households and legal entities) and five mutually exclusive sectors (as shown below inclusive of key public sector sub-sector classifications).



For all resident units:

(1) Is it a household or institutional household? — No → (2) Is it a non-market producer? — No → (3) Does it produce financial services?

(1) Is it a household or institutional household? — Yes → Household sector

(2) Is it a non-market producer? — Yes → (2a) Is it controlled by government?

(2a) Is it controlled by government? — No → Non-profit institutions serving the household sector

(2a) Is it controlled by government? — Yes → General government sector

General government sector:
- General government
- **Whole-of-government (by jurisdiction)**
  - (1) National government
  - (2) State/provincial government
  - (3) Local government

(3) Does it produce financial services? — Yes → Financial corporations sector

Financial corporations sector:
- National private financial corporations
- Public financial corporations — **Government controlled**
- Foreign-controlled financial corporations — **Foreign controlled**

(3) Does it produce financial services? — No → Non-financial corporations sector

Non-financial corporations sector:
- National private non-financial corporations
- Public non-financial corporations — **Government controlled**
- Foreign-controlled non-financial corporations — **Foreign controlled**

SNA – Key transactions focus

All goods and services **used** in the economy were either:		All goods and services **produced** by the economy were either:
Produced in the economy	SUBSIDIES	Consumed
or	TAXES	or
Imported		Used for capital formation
		or
		Exported

SNA – Key account focus

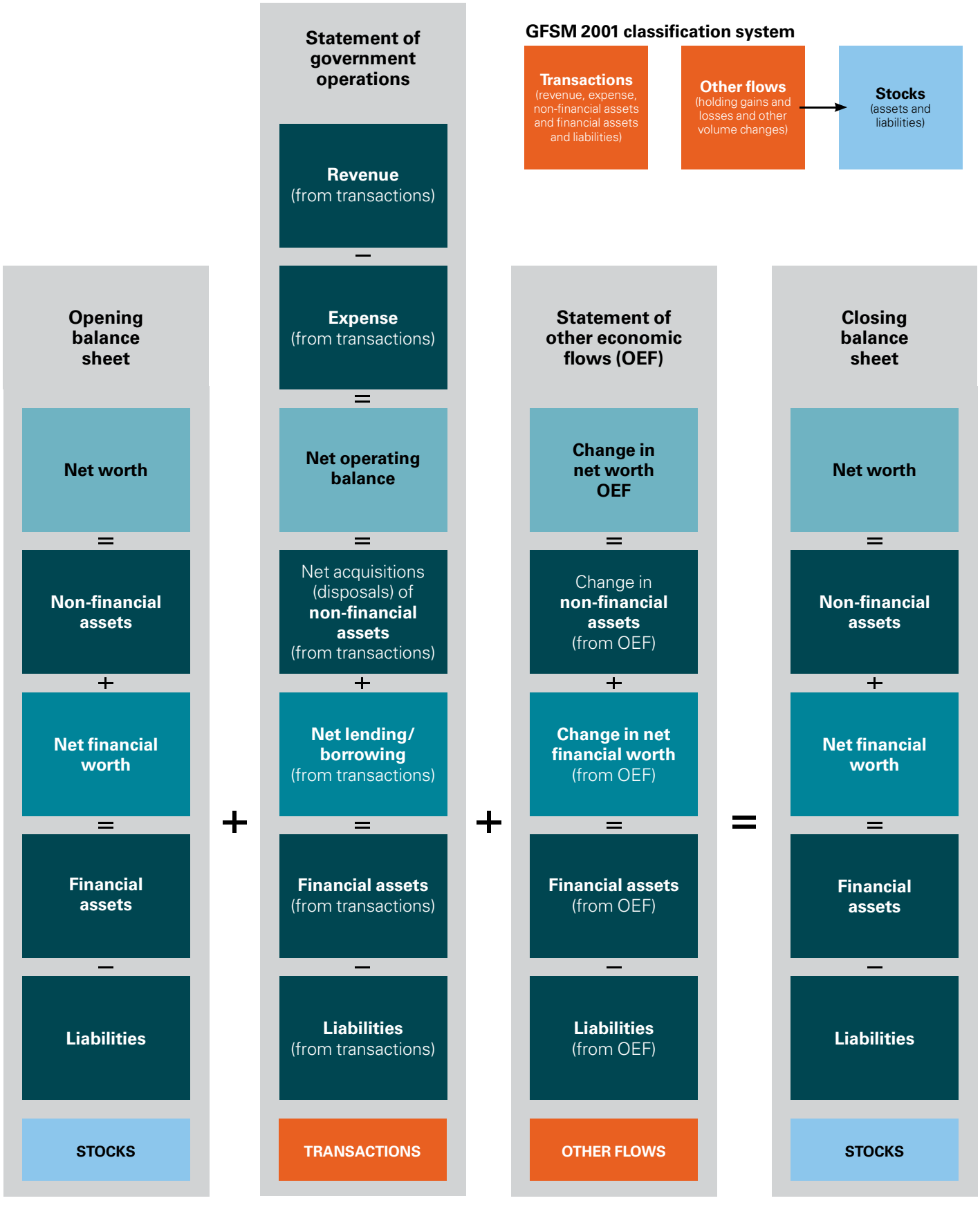
Current accounts	Savings	Accumulation accounts
▪ Production account (GDP) ▪ Distribution and use of income accounts		▪ Capital account ▪ Financial account

Balance sheet

Opening balance sheet >> Changes in assets and liabilities >> Closing balance sheet

Source: KPMG International, 2013 (based on the System of National Accounts (SNA) 2008)

Figure 7: Context diagram for GFS Manual 2001



Source: KPMG International, 2013 (based on Companion Material via the IMF by Johann Bjorgvinsson, September 2004)

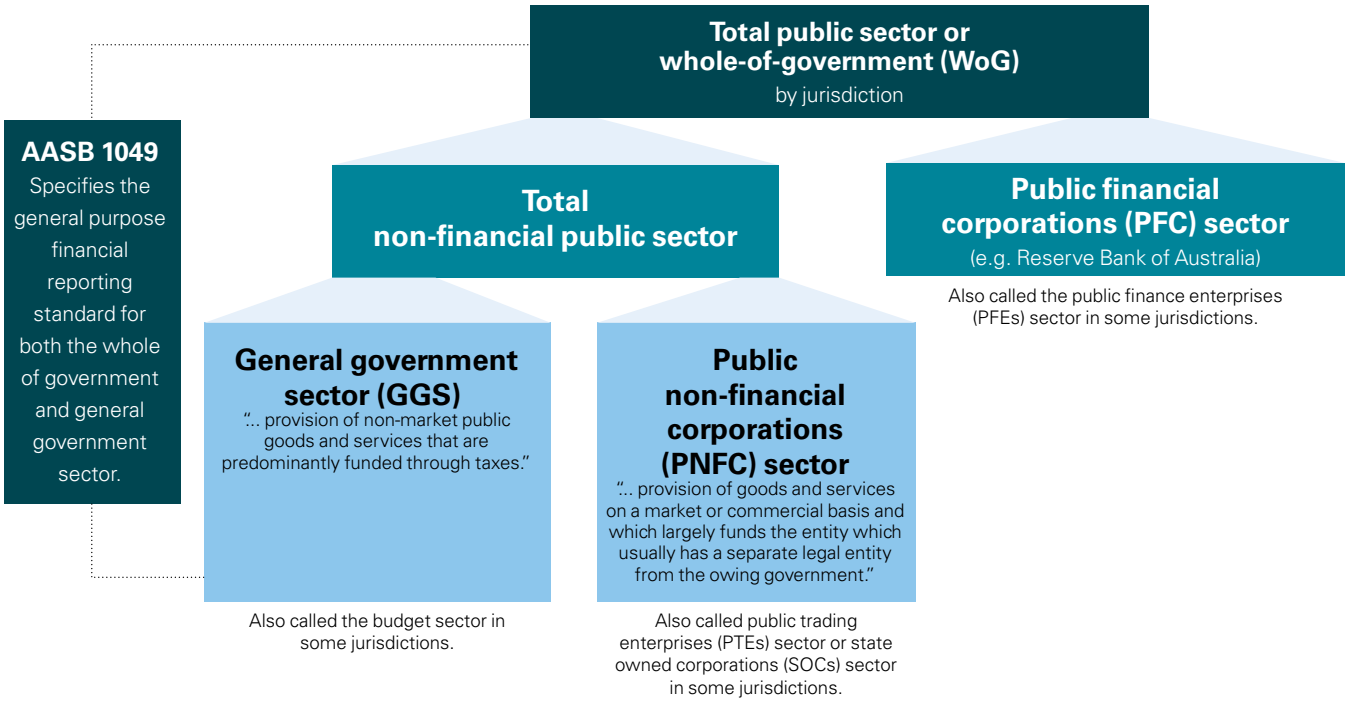
Appendix B: Example government accounting framework

There is a wide range of government accounting frameworks used by countries or group of countries:

- Some of these frameworks are simply used for reporting whereas in other instances, they are used for both budgeting and reporting purposes.
- Some of these frameworks are cash-based whereas others are accrual-based frameworks.
- Some of these frameworks use international accounting standards (such as IPSAS or IFRS) whereas others use country-specific standards and even some use a combination.

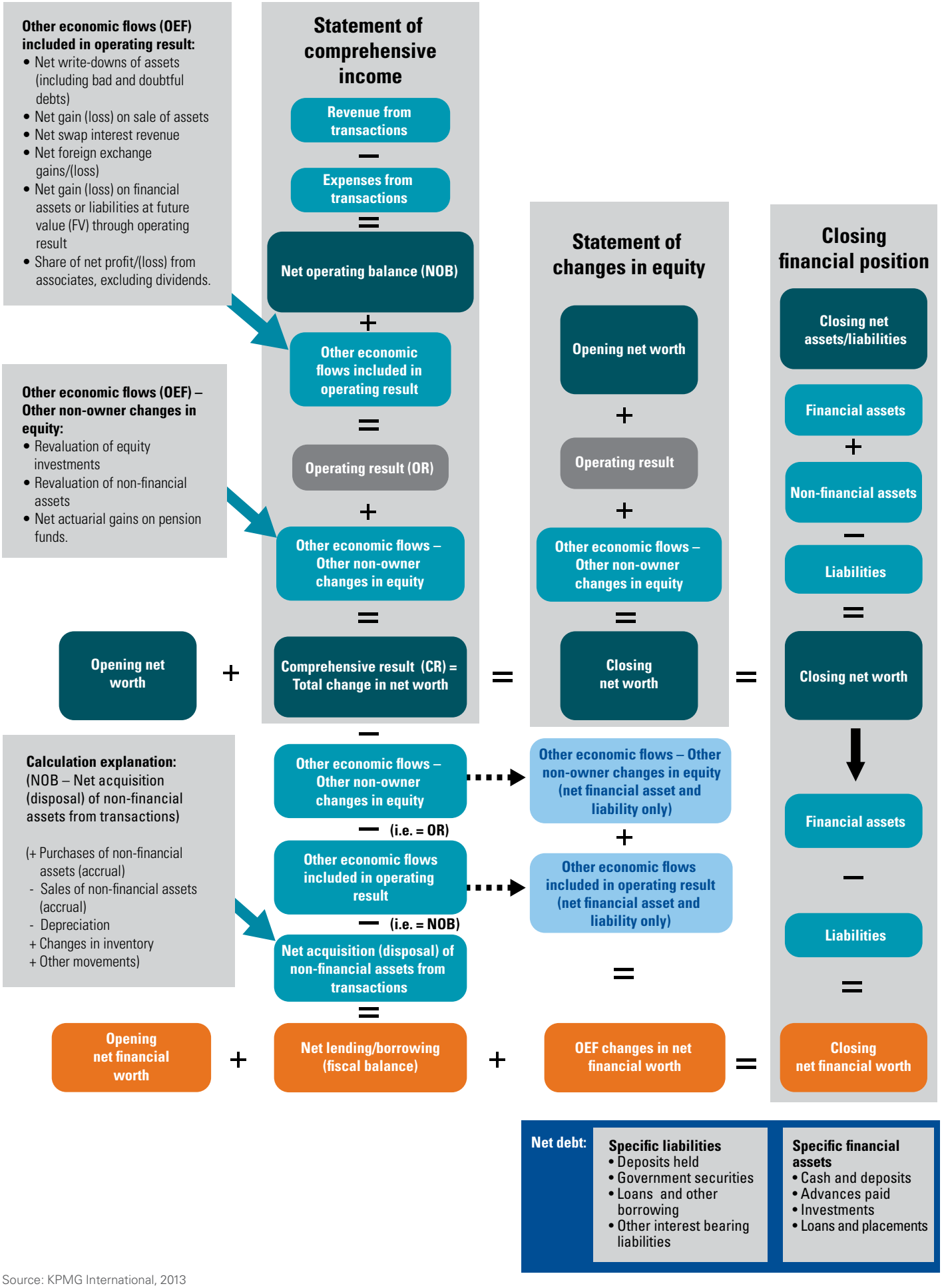
The following sample framework is taken from Australia's AASB 1049. It is considered one of a number of frameworks that exhibits best or leading practice. One of its interesting features is that it is a framework based on a reasonably complete harmonization of IFRS and GFS. It is also used by both the Australian government and all sub-national level governments at the state level, but doesn't include local governments. It is also a standard that facilitates the reporting of both whole of government and sector reports for general government (GGS), public non-financial corporations (PNFCs) and public financial corporations (PFCs).

Figure 8: Australian example of public sector classifications



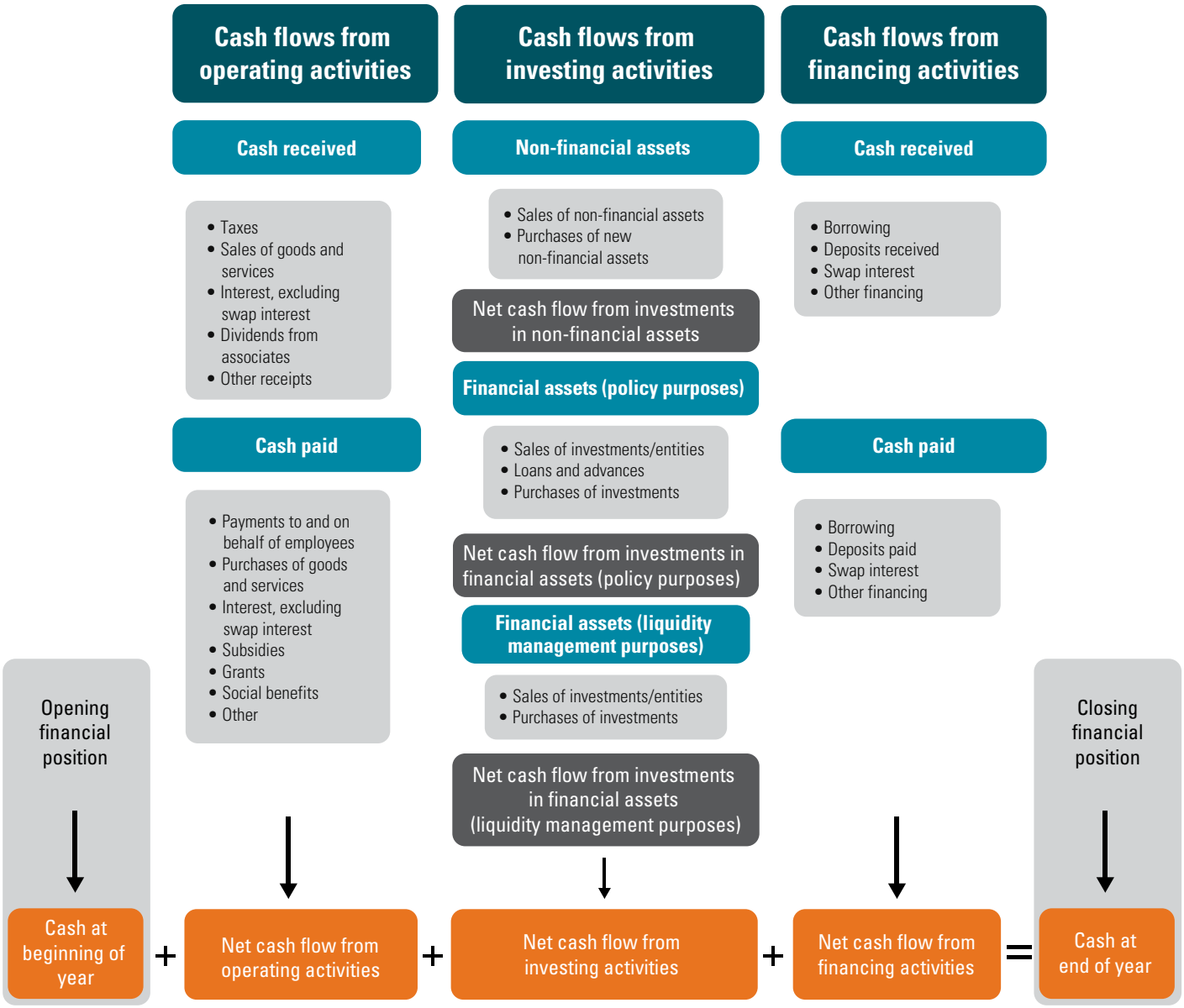
Source: KPMG International, 2013 (based on the System of National Accounts (SNA) 2008)

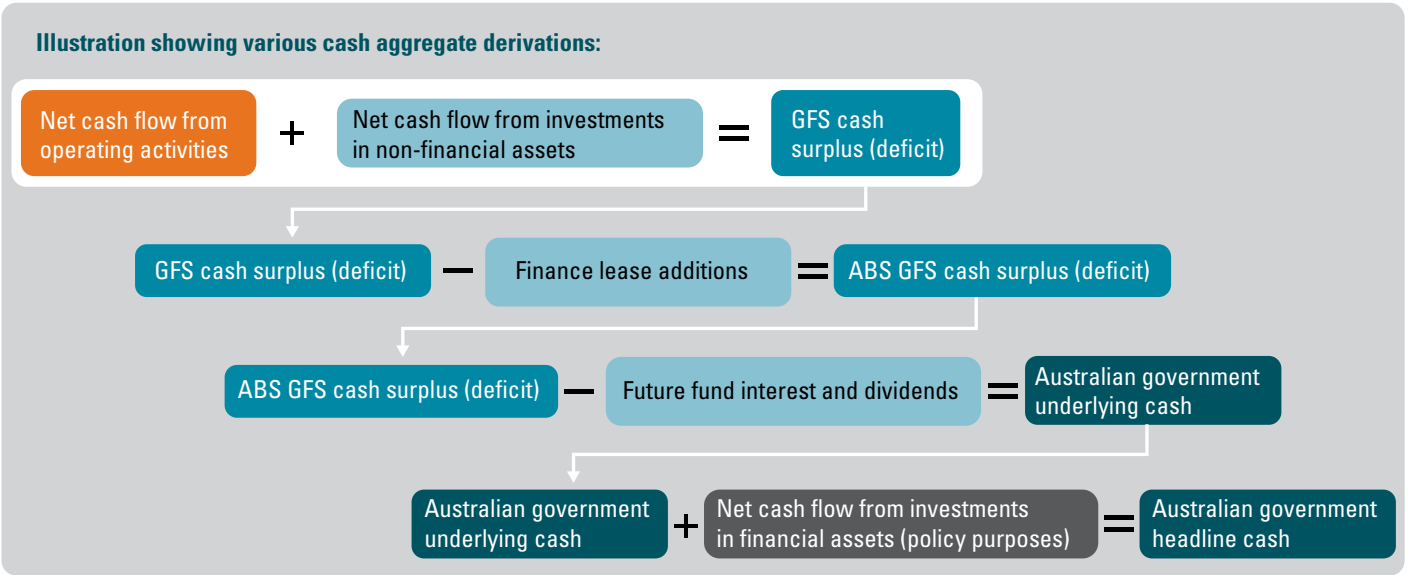
Figure 9: Overview diagram for AASB 1049 – Statements of comprehensive income, changes in equity and financial position



Source: KPMG International, 2013

Figure 10: Overview diagram for AASB 1049 – Statement of cash flows





Source: KPMG International, 2013

References

Each of the 19 country profiles presented in this paper includes a general profile describing the nature and structure of the government institutional powers in place, with a particular emphasis on the executive and legislative arms of those arrangements and whether the country operates sub-national government arrangements.

This general information has been compiled from information available in the public domain, through sources such as country-specific government websites and Wikipedia. References for more detailed and/or specific information are provided, by country, in the table below.

Country Profile	References
Argentina	1) Araoz, M, Cerro, A, Meloni, O and Genta, T, *Fiscal Sustainability and Crises. The Case of Argentina*. 2) Marcelo F. Altamiranda, Laurence J. Kotlikoff and Willi Leibfritz, *Generational Accounting around the World, Chapter 5: Argentina's Generational Accounts: Is the Convertibility Plan's Fiscal Policy Sustainable?* (University of Chicago Press, 1999).
Australia	1) Charter of Budget Honesty Act, 1998. 2) Various Australian government websites, including www.finance.gov.au, www.aec.gov.au, www.budget.gov.au and www.treasury.gov.au.
Brazil	1) The Constitution of Brazil. 2) The Brazilian Fiscal Responsibility Law, Supplementary Law 101, 4 May 2000. 3) Statement by Mr. Guido Mantega Minister of Finance of Brazil, International Monetary and Financial Committee, IMF, Twenty-Fifth Meeting, 21 April 2012. 4) Selene Peres Peres Nunes. (2008, February). *The case of the Brazilian Fiscal Responsibility Law: rules, results and challenges*. Presented at Seminario Internacional "Descentralización e inclusión social en el marco de los procesos de integración regional", Lima, Peru. 5) Otaviano Canuto and Lili Liu, *Subnational Debt Finance and the Global Financial Crisis*, World Bank, Economic Premise, May 2010, Number 13. 6) Helio Tollini (2009, February). *The Budget Formulation Process in the Brazilian Congress*. Presented at Working Party of Senior Budget Officials, First Annual Meeting of the OECD Parliamentary Budget Officials, Rome, Italy. 7) Helio Tollini, *Reforming the Budget Formation Process in the Brazilian Congress*, OECD Journal on Budgeting, Volume 2009/1. 8) Ole Hagen Jorgensen, *Macroeconomic and Policy Implications of Population Aging in Brazil*, The World Bank, Latin American and Caribbean Region, Economic Policy Sector, January 2011, Policy Research Working Paper 5519.
Canada	1) Canadian Fiscal Sustainability Report (FSR 2010 and FSR 2011). 2) Various Canadian government websites including www.canada.gc.ca.
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The data tables provided in the budget cycle and economic cycle in the 19 country profiles were sourced from the IMF World Economic Outlook database, April 2012 update. The data tables provided in the intergenerational cycle were sourced from the United Nation's World Population Prospects: The 2010 Revision database.

Notes

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Designed by Evalueserve.
Publication name: Walking the fiscal tightrope
Publication number: 121311
Publication date: January 2013