Intergovernmental Fiscal Outlook for 2023 and 2024 – Interim Version

This document is prepared semi-annually to set the stage for discussions at the OECD Network on Fiscal Relations across Levels of Government annual and interim meetings. It presents an overview of the economic outlook and how it translates into the prospective fiscal scenario across levels of government. It also includes a discussion on relevant themes that impact subnational governments' (SNGs) fiscal sustainability and their impacts on central and general government. In this version, the analysis focuses on SNGs' public debt, specifically on subnational bond risks across OECD and other major countries.

Key Messages

1. GDP growth estimates have been revised slightly upwards while projected inflation remains high against elevated interest rates.[1]
2. Subnational government (SNG) revenues are projected to grow 1.5% in 2023 and 1.4% in 2024, slightly better than at the beginning of this year, despite some negative surprises for 2022.
3. However, with higher interest rates, SNGs will likely face important challenges in managing their debt, which accounts for around 20% of GDP (OECD average).
4. SNGs' debt is often highly vulnerable to interest rate movements, with a 50% average share of bank loans and short-term bonds.
5. With current interest rates, this debt profile implies a growth in interest payments of up to 1% of GDP, or 10% of SNGs' revenues.
6. The market for SNG bonds is active in many countries, with thousands of issues per year, having grown five-fold in the last 20 years (outside the United States).
7. Nordic countries and Italy stand out with high shares of floating and short-term bonds – between 50% and 70% – compared to a median of 10%.
8. Despite large differences in fiscal positions, heterogeneity across borrowing costs of SNGs is minor in some countries, which is a sign of friction in the subnational bond market, most probably through implicit or explicit sovereign guarantees.

[1] Projections are based on the OECD *Interim Economic Outlook* (OECD, 2023d). This note was prepared by Acauã Brochado, collaborator to the Network on Fiscal Relations, with inputs from Pietrangelo de Biase, under the supervision of Sean Dougherty, Head of the Network Secretariat. We are grateful for comments on the document from delegates of the Network as well as OECD colleagues Boris Cournède and Nigel Pain of the Economics Department. Special thanks to Meral Gedik for the layout.

1. INTRODUCTION

The macroeconomic outlook has improved slightly but remains fragile, with risks tilted to the downside. After the economic shocks of 2022, caused by Russia's invasion of Ukraine, with major effects on the energy markets and migration flows, especially in Europe, the situation stabilised during 2023, prior to the conflict following the Hamas terrorist attacks on Israel. The macroeconomic outlook is still much worse than what was expected before February 2022, but revisions have been mostly on the positive side, with a significant, but not dramatic improvement in growth during 2023, with declining inflation and interest rates stabilising.

Drawing on the projection tools developed by the OECD Network of Fiscal Relations (OECD, 2023a) and based on economic developments across OECD and G20 economies captured in the *OECD Interim Economic Outlook* published in September 2023,[2] this note updates the intergovernmental fiscal outlook from April 2023 (OECD, 2023b) and discusses its main implications. The note also presents an overview of the debt profiles and risks of SNGs – focusing primarily on marketable bonds and debt securities – and discusses the main characteristics of these liabilities and their implications for debt sustainability in the current environment of heightened inflation and interest rates.

The following sections show that revenue forecasts have improved somewhat, despite some negative surprises. Expenditure pressures are still mounting, and interest rate exposure is raising financing costs and interest payments. The slightly positive fiscal balances of SNGs in the OECD area from 2022 can move to negative territory due to a surge in borrowing costs. Those are unevenly distributed across countries and jurisdictions, depending on their fiscal exposure and debt portfolios (maturity and interest rate profiles). Central governments would benefit from closer monitoring of subnational finances to avoid having to support them in times of needed fiscal consolidation.

2. ECONOMIC CONTEXT

2.1. GDP growth estimates have been revised slightly upwards, while projected inflation has declined but remains above targets amid heightened interest rates

The current challenging scenario has not changed dramatically from the one described in the last intergovernmental fiscal outlook (OECD, 2023b). Even with a stabilisation of most OECD economies after the economic shocks of 2022, the scenario is still much worse than the high growth one expected before Russia invaded Ukraine, yet the last updates have been on the positive side, with a significant, but not major improvement in growth in 2023. Nevertheless, the rebound in China's growth has faded and tight monetary policy stances hold down growth expectations, with the global output annual growth estimated to remain below 3% in 2023 and 2024, among the lowest in the last decades. Headline inflation in most countries seems to

---

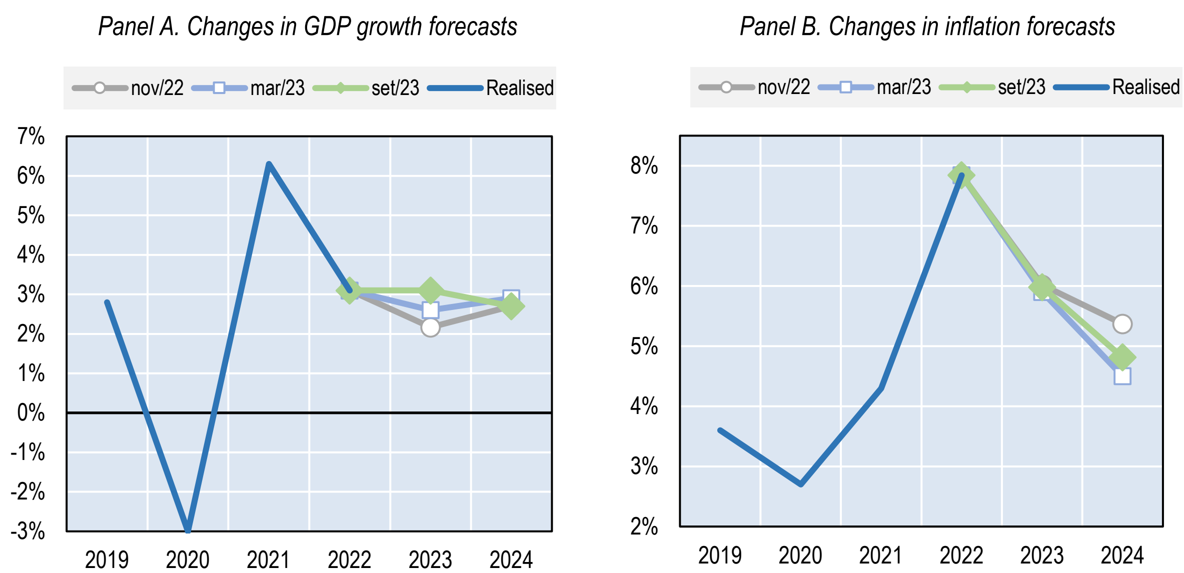
The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

[2] This note, prepared for 30 November 2023, follows the OECD *Interim Economic Outlook* published on 17 September 2023 (OECD, 2023d), and thus does not take into account the conflict following the Hamas terrorist attacks on Israel, which will likely have broad-reaching effects.

have peaked, but with elevated core inflation, with service goods inflation especially persistent, monetary policy remains tight, although more stable. The main risk on the downside is that a longer period of higher interest rates may trigger financial vulnerabilities built up in a long period of very low rates and rising indebtedness (OECD, 2023c).

Against this backdrop, projections of growth and inflation were moderately revised since the previous intergovernmental fiscal outlook (and IEO). For the G20, projected GDP growth is now 3.1% for 2023 and 2.7% for the year 2024, compared to 2.6% and 2.9% respectively in March 2023 (Figure 1, Panel A). The inflation forecast was revised slightly upwards to 6.0% for 2023 and to 4.8% for 2024, compared to 5.9% and 4.5% (Figure 1, Panel B) in the previous note. The situation is, however, still challenging, with sub-par growth and inflation above targets. To put these values in perspective, the world output growth outlook, which is nearly the same as for the G20, has only fallen below 2.7% three times in recent decades: 2001, 2009, and 2020.

Figure 1. Growth and inflation outlook for the G20



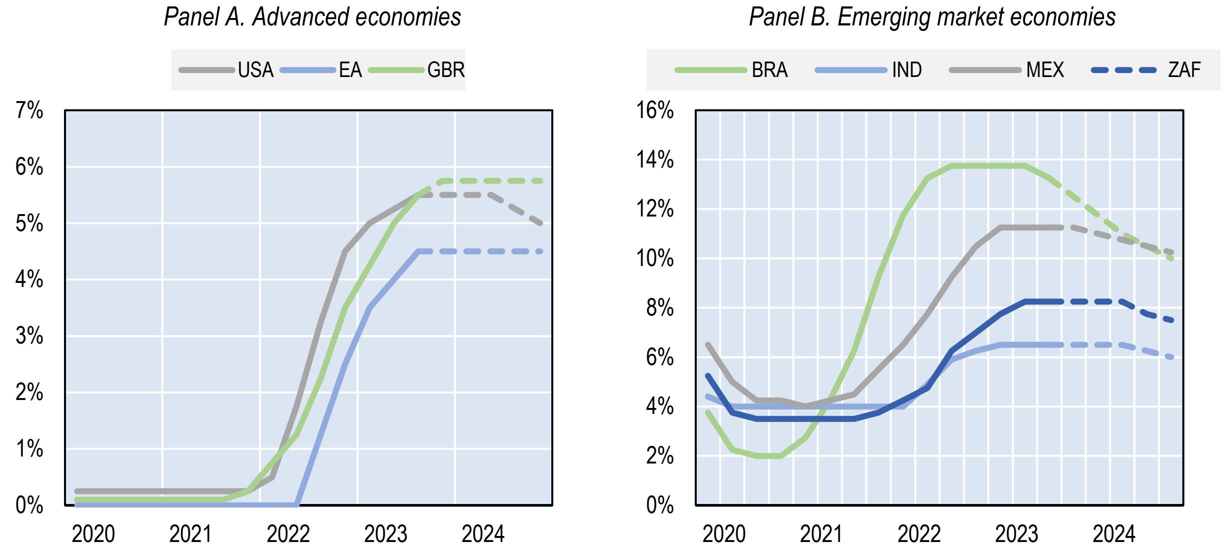
Source: OECD Quarterly National Accounts (Database), OECD Economic Outlook Interim Report (September 2023), OECD Economic Outlook n°112 (November 2022), and OECD Economic Outlook, Interim Report (March 2023).

2.2. High inflation still calls for heightened interest rates, which can trigger financial vulnerabilities

As mentioned above, headline inflation in most countries seems to have peaked, but core inflation remains high, so monetary policy will probably stay tight for the near future. This is because, even with energy prices declining sharply from their peaks last year, underlying measures of inflation, and especially services inflation still do not show clear signs of receding. One of the reasons for this is that, though growth is below trend, the labour market is still tight, and wages keep rising.

With underlying inflation still under pressure and, with the conflict following the Hamas terrorist attacks on Israel, there is a renewed risk of a surge in energy prices, which could cause headline inflation to spiral again. Thus, most central banks are unwilling to ease monetary policy and additional tightening may occur in some countries. Forecasts indicate that rates will remain near their peaks for a while in most countries, apart from Brazil, which tightened earlier and has already started to cut rates. More precisely, Mexico may start cutting rates beginning next year, but other major central banks are likely to follow only after the middle of 2024. Thus, monetary policy will probably remain relatively tight in the short term. Figure 2 shows recent and expected movements in monetary policy rates for selected countries.

Figure 2. Policy interest rates in the major economies



Note: Main refinancing rate for the euro area.
Source: OECD Economic Outlook, Interim Report (September 2023).

Therefore, the main downside risk to GPD growth is that a longer period of heightened interest rates may trigger financial vulnerabilities built up during the long period of extremely low rates (OECD, 2023c). In particular, as will be discussed below, subnational governments' debt is highly exposed to interest rate movements. Together with the fact that SNGs in many cases also face liquidity and borrowing constraints, they are particularly vulnerable and may struggle to keep debt payments on schedule without major fiscal rearrangements.

3. THE UPDATED SUBNATIONAL FISCAL OUTLOOK

3.1. Preliminary data for 2023 indicate resilience, but financing risks are starting to appear

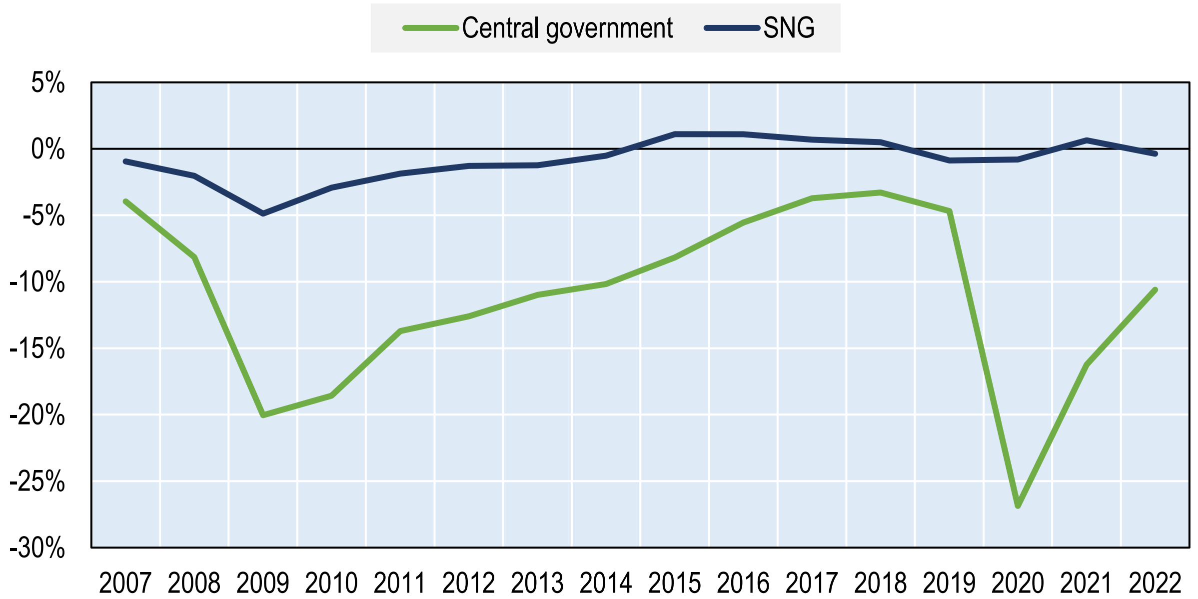
In contrast to central governments, who absorbed most of the economic shock caused by COVID-19, the finances of SNGs in OECD and G20 countries improved considerably in the aftermath of the pandemic (Figure 3). In 2022, however, the shock in energy prices and migration caused by the invasion of Ukraine by Russia began to revert towards trend. Although revenue forecasts have been revised upwards overall, the growth is not substantial, and on the expenditure side, fiscal and financial pressures persist.

Despite the overall relatively good shape of SNGs' budget balances, it is worth noting that general government debt levels are still not far from their historical highs observed in 2020 (OECD, 2023a). This has important implications for SNGs' fiscal outlook. First, it implies that central governments have little fiscal space to provide additional help (if need be) to SNGs.

Second, highly indebted SNGs might be asked to help contribute to the overall reduction in general government debt, as is currently happening in China.

Lastly, in this scenario of high general government debt and heightened inflation, a long period of heightened interest rates can become a serious threat to highly indebted SNGs, depending on their debt profiles. In the following sections, we assess the characteristics and vulnerabilities of SNGs' debt portfolios.

Figure 3. Fiscal balances of central governments and SNGs as a share of revenues



Note: Median of OECD countries is shown.
Source: OECD – System of National Accounts, Table 12 – Net lending (+) / Net borrowing (-).

3.2. Estimates for revenue growth in 2023 were revised upwards and forecasts for 2024 vary

Despite the current good shape of SNG finances, looking forward, more modest economic growth will directly affect SNG revenues. Taking estimated tax buoyancies[3] (i.e. sensitivity of government revenues to economic activity) for each country, as well as OECD projections for real GDP growth in G20 countries, it is possible to project SNG revenues for the present and near future. Figure 4 shows the current revenue growth estimates, compared to estimates from March 2023 (OECD, 2023b).[4]

Regarding 2022 growth in SNGs' revenues, most final results were close to the estimations made in March 2023 for the previous Inter-governmental Fiscal Outlook, but there were two major downward surprises (Spain and the UK) and one positive surprise (Korea), depicted in Figure 4, Panel A.

Concerning 2023, SNG revenues may show, broadly stronger growth than expected in the previous note (OECD, 2023c), apart from a few countries. As illustrated in Figure 4, Panel B,

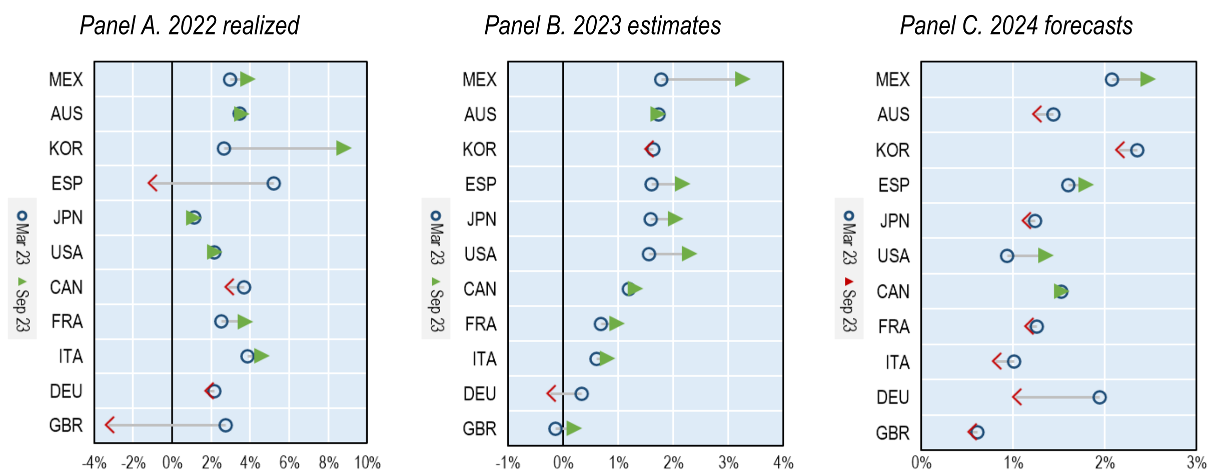
[3] Buoyancy captures the sensitivity of government revenues to economic activity (i.e. GDP) based on historical data. Buoyancy coefficients capture both the tax elasticity with respect to economic activity and the changes in the tax system made in the past. A buoyancy of 1.1 means that when GDP increases by one per cent, revenues should increase by 1.1%. For an analysis of SNGs short-term buoyancies see (Dougherty & de Biase, 2021).

[4] The preliminary updated projections for GDP growth still do not cover all OECD countries (only G20), so this analysis focuses on those with forecasts available in the September OECD Economic Outlook Interim Report (OECD, 2023d).

estimates for 2023 for most countries are now better than in the previous note, apart from Korea and Germany. This is corroborated, for example, by the very positive tone of the analysis of the United States by the National Association of State Budget Officers (NASBO, 2023), which showed surprising positive fiscal results for American states despite reductions in tax rates or provision of tax benefits in the aftermath of the pandemic. In Germany, on the other hand, the Länder continue to press the central government for more financial support, reinforced by recent negative revisions to revenue growth and the costs of strong migration flows, which are in great measure borne by subnational governments (MDR, 2023).

For 2024 (Figure 4, Panel C), the changes were mixed and in general not very large. The important exception is again Germany, with a revision leading to a 1 percentage point lower revenue growth projection for next year.

Figure 4. SNGs own revenues growth in real terms



Note: Blue hollow dots represent estimates using March 2023 Interim Economic Outlook. Green and Red arrows represent current estimates using September 2023 Interim Economic Outlook (OECD, 2023d), with positive and negative changes, respectively. Uses consolidated revenues. Projections used the mean group estimator for each type of tax revenue from Dougherty & de Biase (2021). SNGs' own revenues refer to total revenues minus transfers received from other levels of government – they therefore include own tax and non-tax revenues, such as user fees and charges.

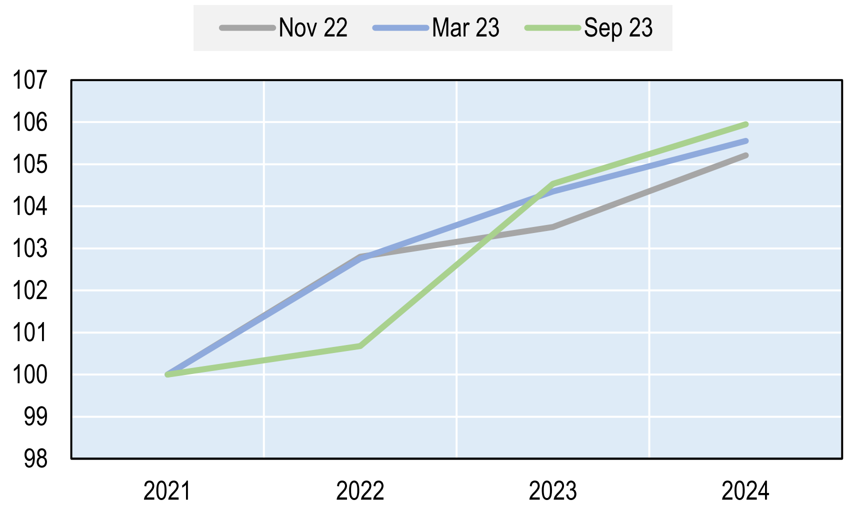
Source: Authors' calculations based on OECD (2023d), OECD System of National Accounts and OECD Fiscal Decentralisation database.

To get a better sense of the overall movement, looking at the median of projections for the countries listed above, although revenues were lower than expected in 2022, projections for 2023 and 2024 improved marginally. That is, in general, the shortfall in 2022 may be compensated by higher-than-expected growth in 2023. In Figure 5, it is possible to see that the most recent figures foresee a catch-up towards the trend of the previous projections, and even go slightly beyond them.

We see two main risks to these projections. Firstly, on the positive side, many SNGs have a sizeable share of their revenues coming from taxes on services, and the services sector, both in real and in nominal terms, has been outperforming the goods sector since the end of the pandemic (OECD, 2023d). The estimates discussed above, produced using the OECD buoyancy framework, however, do not consider the detailed forecasts for goods and services sectors. Therefore, there is a chance of some positive surprises for revenues in countries where SNGs significantly tax services. On the negative side, however, rising interest rates are eroding one of the most important tax bases for subnational governments, as property values fail to keep pace with inflation in many OECD countries.

Figure 5. Trends in forecasted SNG's revenues

Median trajectory of SNG's revenues in 2022, 2023 and 2024, expected at current and previous outlooks



Note: Index is set to 100 in 2021. Median estimates for each year. Uses consolidated revenues. Projections used the mean group estimator for each type of tax revenues from Dougherty & De Biase (2021). SNGs' own revenues refer to total revenues minus transfers received from other levels of government – they therefore include their own tax and non-tax revenues, such as user fees and charges.

Source: Authors' calculations based on OECD Economic Outlook of n° 112 (November 2022), OECD Economic Outlook – Interim Report (March 2023), OECD Economic Outlook – Interim Report (September 2023), OECD System of National Accounts and OECD Fiscal Decentralisation Database.

3.3. On the expenditure side, there are still little signs of easing, while interest payments could increase by up to 1% of GDP

After the first generally positive impact of inflation on the nominal value of tax collections, it may now negatively affect public budgets through higher prices of goods and services that they buy to fulfil their mandates. The rise in wages, for example, will probably impact SNGs directly. The intense immigration, especially in Europe, still pressures SNGs' expenditures. The sharp decline in energy prices from their 2022 peaks did not fully translate into lower expenditures (or tax expenditures), because some measures taken to attenuate their impact on households are not being quickly reversed (e.g. energy subsidies).

In this scenario, as was the case in the last note, it is especially important to re-think the untargeted support measures that were offered to households and firms in 2022 and focus on more efficient targeted measures (OECD, 2023a; OECD 2023c).

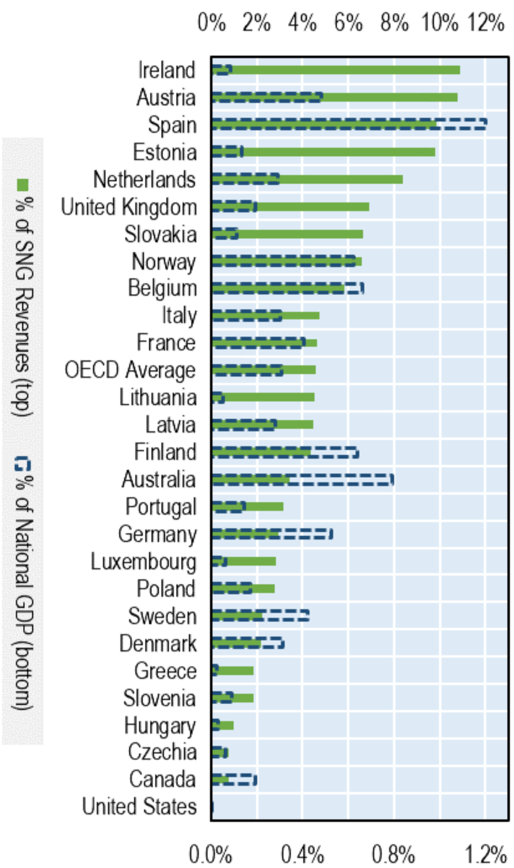
Lastly, in this scenario of high general government debt and high inflation, interest rate hikes, either by monetary policy tightening or by higher risk aversion overall, can become a serious threat to highly indebted SNGs. Depending on SNGs' debt profile, a 5% interest rate increase on an average debt constituting 20% of GDP could result in a 1% GDP increase in debt payments, equivalent to nearly 8% of SNG revenues.[5] However, the speed at which rate increases will translate into higher debt payments depends crucially on SNGs' debt profile, which varies significantly across countries and within jurisdictions. In the following section, we assess some of these characteristics.

[5] Considering the averages for OECD countries' SNGs.

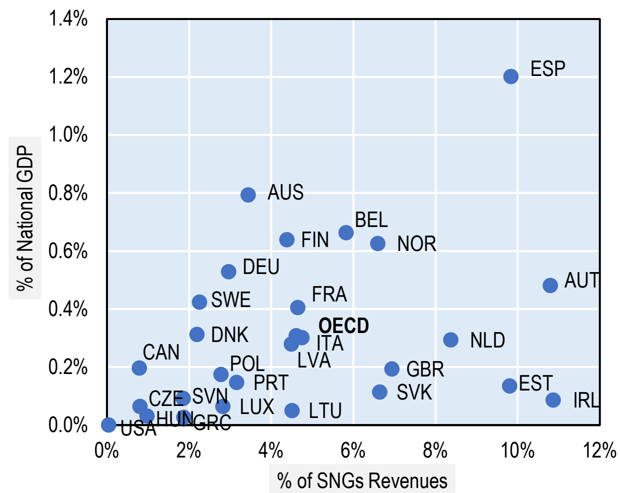
Figure 6 shows a rough estimate of the growth in SNGs' expenditures with interest payments (or accrual) for a 5 percentage point higher rate scenario.[6] The calculation considers the shares of floating and short-term debt, as well as the shares of debt-to-GDP and debt-to-revenue. Countries with the lowest estimated risk include decentralised federations with the most active subnational debt markets, the United States and Canada. These are followed closely by Czechia, Hungary, Slovenia and Greece. With high bars both relative to SNGs' revenues and to national GDP (Panel A), Spain stands out as having the more vulnerable SNGs, followed by Austria, Australia, Belgium, Norway and Finland. This is even clearer in the scatterplot in Panel B, where countries to the upper-right corner could be considered more vulnerable. More precisely, the dots to the right show SNGs more likely to have a hard time keeping debt payments on track without major budgetary changes, while points to the top show countries where this problem might also be large in relation to national GDP.

Figure 6. Estimated growth in interest expenses for a 5 p.p. increase in rates

Panel A



Panel B



Note: In Panel A, bars represent estimated growth for each country in percentage points of SNG revenues (green) and national GDP (blue dashed). Panel B is a scatterplot that depicts the relation between those two measures for each country.
The United States is not shown because data disaggregated into debt instruments by levels of government is not available in the OECD SNA.

Source: Authors' calculations based on OECD Fiscal Decentralisation database and OECD System of National Accounts, Financial Accounts.

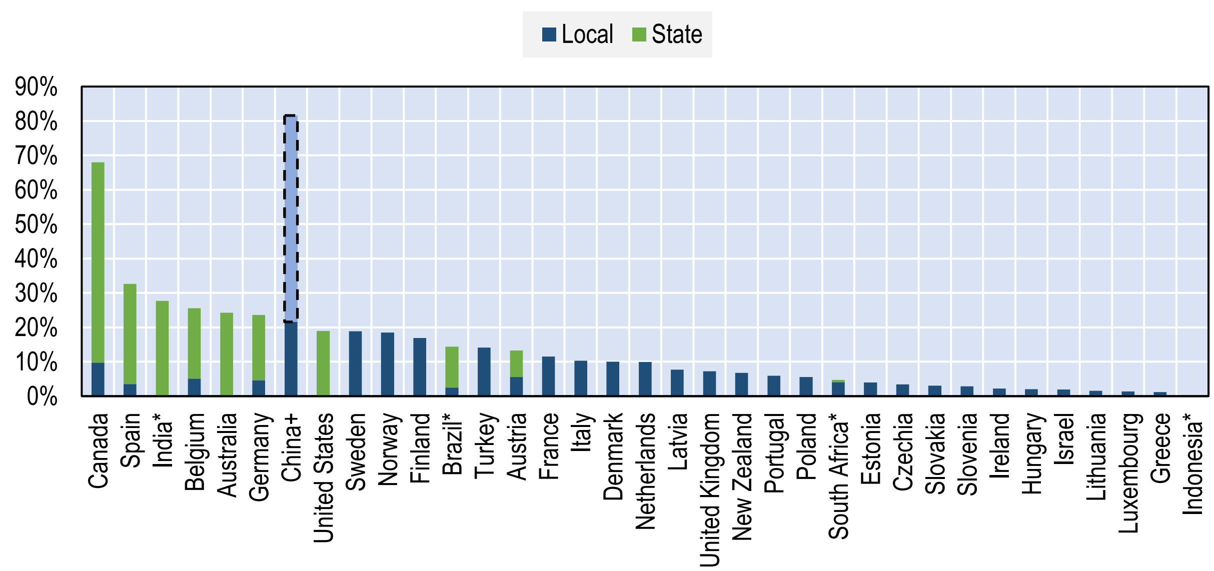
[6] Consistent with the movements seen in 2022/2023, as can be seen in Figure 2.

4. WITH HIGH INTEREST RATES, RISING DEBT SERVICE COSTS CAN BE A CHALLENGE FOR SNGs

4.1. SNGs debt are sizeable and represent roughly 20% of GDP – or 150% of their revenues – on average in the OECD area

The economic outlook indicates that policy rates will stay high until central banks are confident that inflation will recede and remain close to their targets. Meanwhile, as discussed in the last *OECD Economic Outlook* (OECD, 2023d), despite being already below the peaks observed during the pandemic, general government debt is still at historical highs, in some cases close to levels only observed in World War II. This is mostly concentrated in central governments, but in some countries, SNGs do represent a large share of public expenditures and debt. The plot in Figure 7 illustrates that the size of SNGs debt is sizeable in a considerable number of countries. In Canada, for instance, SNGs' debt is almost 70% of GDP, another handful of countries have SNGs' debt between 20% and 30% of GDP, and another half a dozen countries between 10 and 20%.

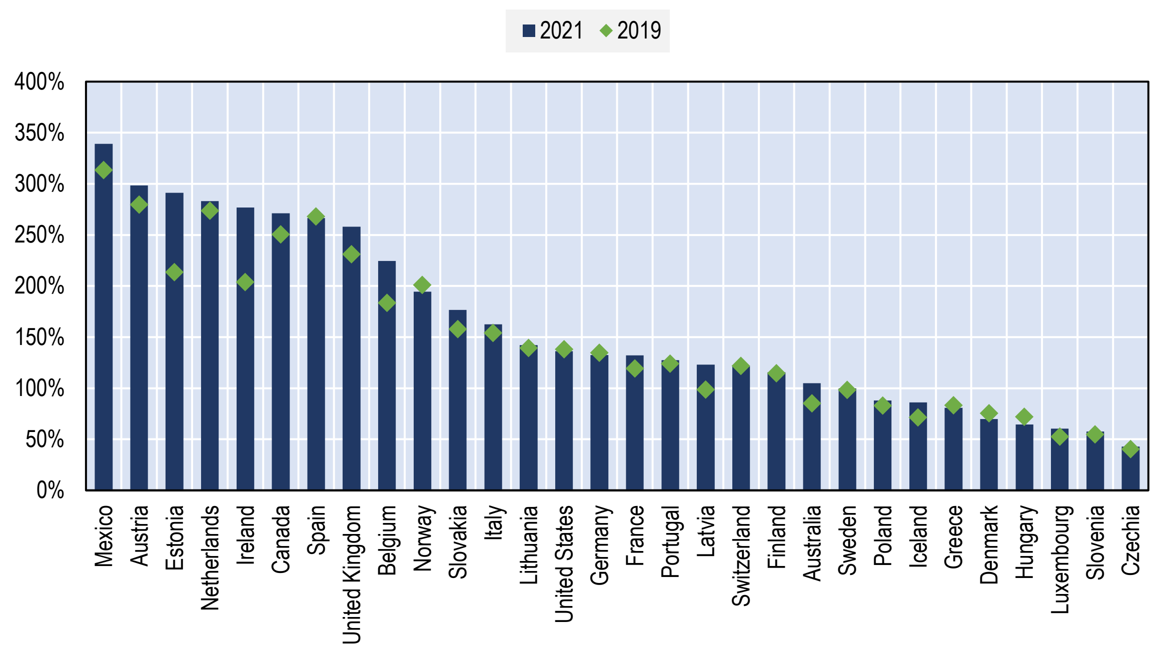
Figure 7. Ratio of SNG debt to GDP, in per cent



Notes: Countries are ordered by the size of total subnational government debt to GDP. *Consolidated data, except for Brazil, Indonesia, India and South Africa (from IMF). +China also shows the estimates for Local Government Investment Vehicles (LGIVs), see OECD (2022e).
Sources: OECD Fiscal Decentralisation database and IMF (for Brazil, Indonesia, India and South Africa).

This measure, in per cent of GDP, is relevant to analyse the overall exposure of the country's economy and of the central government to SNGs' debt. However, it does not show how SNGs are indebted according to their own relative size (and fiscal capacity). Figure 8 shows the ratio between debt and revenues for states and local governments. The average ratio is around 150%. The most indebted SNGs are in Mexico, with a debt-to-revenue ratio of almost 350%. Austria, Estonia, the Netherlands, Ireland, Canada, Spain and the United Kingdom follow closely with ratios of between 250% and 300%. On the other extreme are Czechia, Slovenia, Luxembourg and Hungary, with figures of around 50%. These numbers compare with central governments, for which the OECD (simple) average is around 240%, with 9 countries above 300% and three above 400% (United States, Greece and Spain).

Figure 8. Subnational governments' debt-to-revenues ratio



Notes: "Total liabilities excluding insurance technical reserves" in relation to "Consolidated government revenue".
Sources: OECD Fiscal Decentralisation database.

4.2. Roughly half of SNGs' debt consists of short-term liabilities and bank loans, which increases the sensitivity of interest payments to higher rates

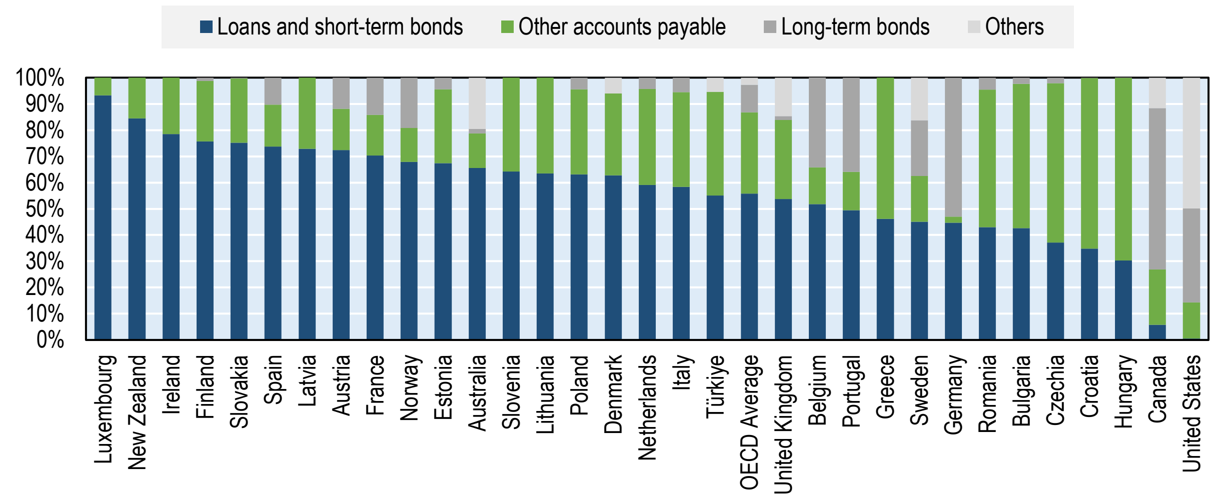
In contrast to central governments, which access the debt market mostly by issuing marketable bonds, especially in advanced and emerging economies, this is not always the case for SNGs. Though SNGs in some countries borrow almost only through bond issuances (e.g. Canada, United States and India – see Box 1 for an overview of SNGs bond markets), most countries will see SNGs having liabilities concentrated in bank loans or a mix between these two instruments.

This debt mix has important implications for SNGs' debt sustainability in two main dimensions: their maturity profile and rate indexation. Firstly, regarding indexation, SNG bonds in the OECD area, in general, pay fixed rates, which reduces the sensitivity of borrowing costs to interest rate movements. On the other hand, loans tend to feature floating rates, which imply borrowing costs change almost immediately after movements in interest rates. Therefore, governments that rely on fixed-rate bonds are less vulnerable to interest rate hikes than those that rely on loans with floating rates.

Secondly, crucial to assess the exposure to interest rate fluctuations is the maturity profile of the debt. Short-term liabilities (those due in up to one year) are frequently refinanced under new rates, having exposure to interest rates similar to loans with floating rates, in addition to refinancing risks (i.e. the risk of not being able to roll over the maturing debt). Fortunately, short-term liabilities represent a small part of total SNG bonds.

To assess SNGs' debt overall exposure to interest rates considering both dimensions, Figure 9 depicts loans and short-term bonds together as a share of total SNGs' liabilities. The exposure is high, with the OECD average showing around 50% of SNGs' debt is arguably exposed to short-term movements in interest rates.

Figure 9. Share of SNGs' debt exposed to interest rate risk in the short-term



Notes: Countries are ordered by the share of short-term maturing debt (up to one year). Latest data available, 2021 or 2022.
Sources: OECD System of National Accounts, Financial Accounts Balance Sheets, Table 710.

In this note, we perform a more detailed analysis of the bond issuances, their main characteristics and how these can relate to SNG debt sustainability, especially in the current macroeconomic scenario. However, we do not investigate the characteristics of bank loans since comprehensive data are scarce.

Box 1. SNGs bond market's rapid growth may turn into a global risk

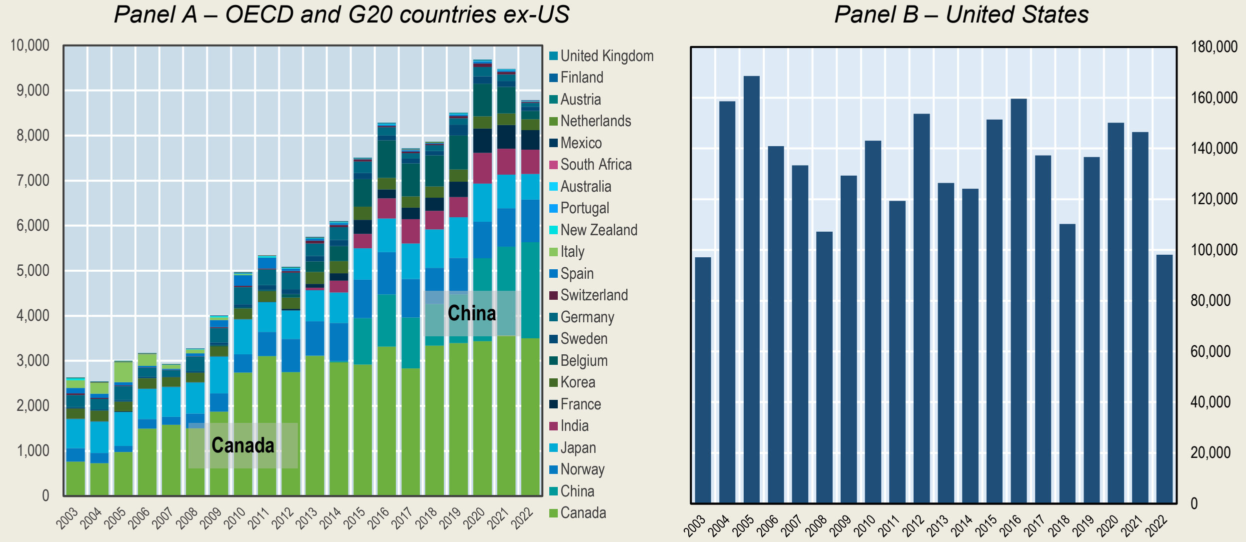
Time trends of issuances

The subnational bond market has gone through impressive trends in the last two decades. Regarding the number of issuances, the collected data show overall steady growth in the number of deals per year, from below 2 000 to almost 10 000 issues per year in 2020, for all countries except the United States. From the year 2000 until 2011, the growth was led by Canadian SNGs, then from 2014 onwards, the overall growth in the number of deals was mostly led by Chinese SNGs, while Canada stabilises (Figure 10, Panel A). While these numbers are impressive, they are still dwarfed by the market for US SNG bonds (commonly called "munis") where more than 100 000 bonds are issued every year (Figure 10, Panel B or see RHS axis). For US SNGs, however, the long-term trend is slightly downward-sloping.

In terms of the amount issued, the US SNGs dominate the market until 2014. From 2015 onward, Chinese SNG issuances immediately surpassed those of the United States, nearly doubling the total volume of world SNG issuances (Figure 11).

This recent growth in Chinese issuances has its roots in changes in regulation from the central government. Until 2014 local governments were generally not allowed to issue debt, which led to the creation of local government investment vehicles (LGIV). These LGIVs issued a huge amount of bonds, being an important source of concern both for global financial markets and for the Chinese government (Bloomberg, 2023). In an attempt to reduce fiscal risks, the central administration has then allowed local governments to issue bonds directly and incentivised (off-budget) LGIVs' liabilities to be swapped by newly issued (official) local public debt (Lam, 2019). That is, most of this volume of Chinese issuances that appeared in 2015 is not exactly new debt, but a change of instruments.

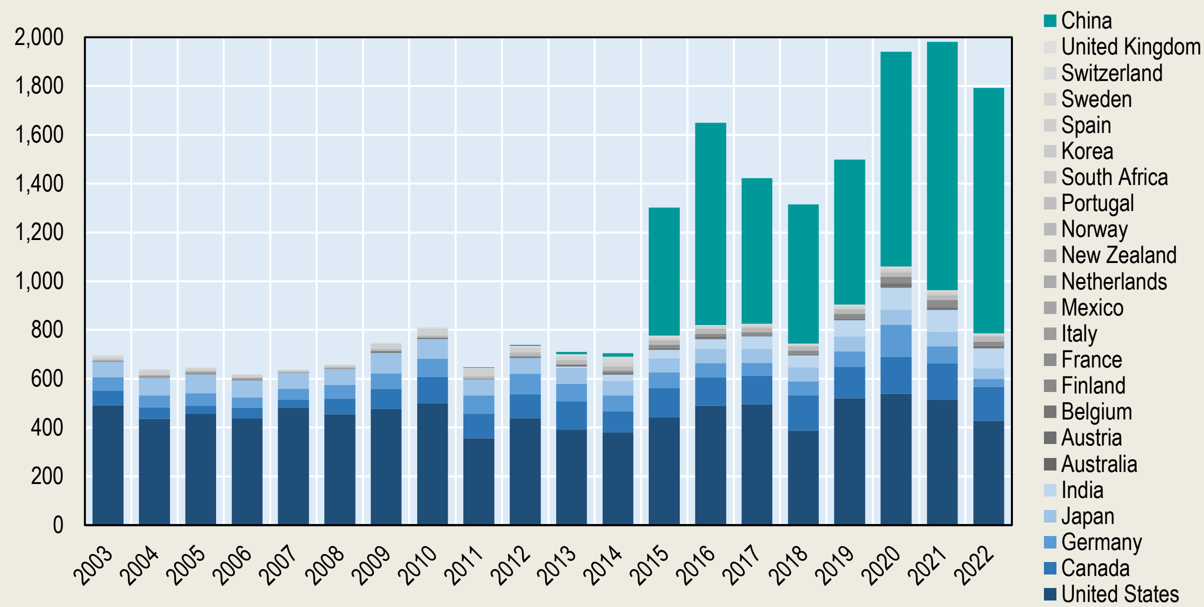
Figure 10. Number of SNG bond issuances in the last two decades



Source: LSEG-Refinitiv.

Since almost all local government bonds, including the LGIVs, are held domestically (primarily by Chinese state-owned banks), the risk that stress in this market can potentially bring to global markets is not direct, but indirect. Should a credit crunch occur in China, reduced economic activity and falling import demand would likely have significant indirect effects on major trading partners and international financial markets.

Figure 11. Volume of SNG bond issuances in the last two decades – in USD billions



Note: In billions of US dollars, current market exchange rates.
Source: LSEG-Refinitiv.

4.3. Although most of SNGs' marketable debt is fixed-rate, some SNGs have a significant share of floating-rate bonds, making them more vulnerable to higher interest rates

Now we turn our focus to the part of subnational governments' liabilities in the form of bonds and securities sold openly in the markets, either in exchanges or over the counter. The analysis is based on data from LSEG (Refinitiv) that encompasses the vast majority of deals (issuances) made with subnational government bonds around the world.[7]

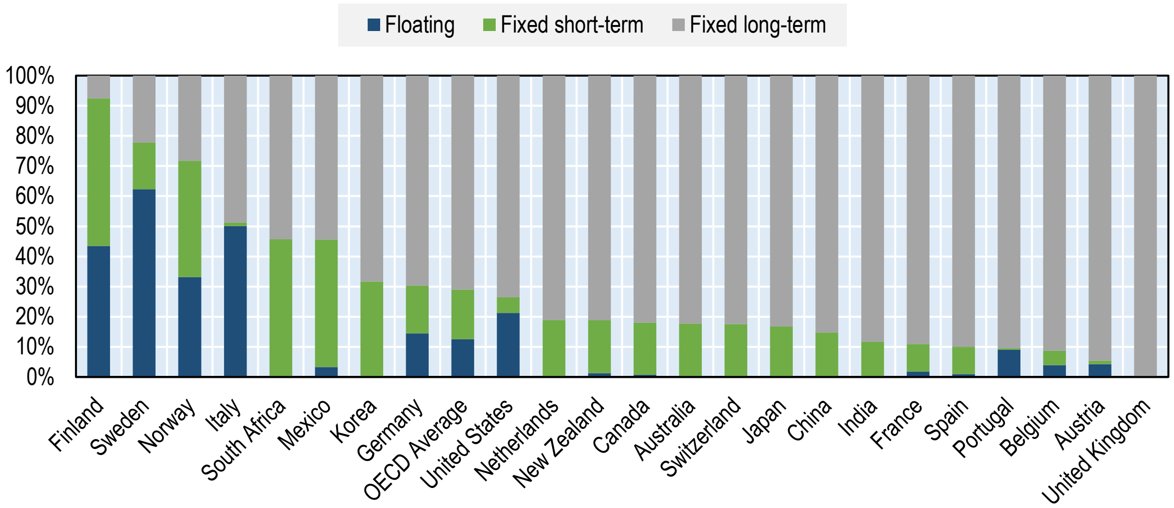
According to the LSEG-Refinitiv classification of the bonds, most SNGs issue securities with either fixed coupons or discount/zero-coupon bonds, meaning that interest rates for the whole life of the security are fixed at the time of issuance. Considering all countries together, fixed-rate bonds represent more than 95% of the total number of bonds issued by subnationals since January 2000. This value contrasts with some central governments, whose share of index-

[7] Specifically, we extracted the full set of bonds issued between January 2000 and September/October 2023, from sectors described as subnational governments in all countries with data available. This includes municipalities, states and regions and excludes sovereigns, supranational institutions and state-owned enterprises. The dataset contains data on more than 100 000 bond issuances, from 24 countries (Australia, Austria, Belgium, Canada, China, Denmark, Finland, France, Germany, India, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Portugal, South Africa, Korea, Spain, Sweden, Switzerland, the United Kingdom and the United States).

linked (e.g. inflation-linked) and floating rate notes can exceed 10% and even reach more than 30% in a few OECD countries. In terms of value outstanding, the picture is similar, but even more concentrated in fixed-rate bonds, with the median of all countries being over 99%. This is, in principle, good news for those SNGs because it reduces their short-term exposure to interest rate hikes. But this is only one of the three main factors determining the exposure.

The second factor that is key to determining the exposure of SNGs' debt to rate movements is the maturity profile of the outstanding liabilities, which was discussed above. This is because even if a government issues only fixed-rate bonds, if they are only short-term, new bonds will have to be issued at current high rates, raising the average cost of debt dynamically. This is especially important to SNGs who have high ongoing financing needs (the third factor), either because of large debt repayments or large deficits that need to be covered by new issuance. The plot in Figure 12 shows the share of short-term maturing bonds (in up to two years) and the share of bonds with floating rates, in value.

Figure 12. Share of floating rates and short-term bonds



Notes: Share of value outstanding. The OECD Average is a simple average of the floating/short-term shares. Short-term in this figure refers to bonds maturing in up to two years.
Source: LSEG-Refinitiv.

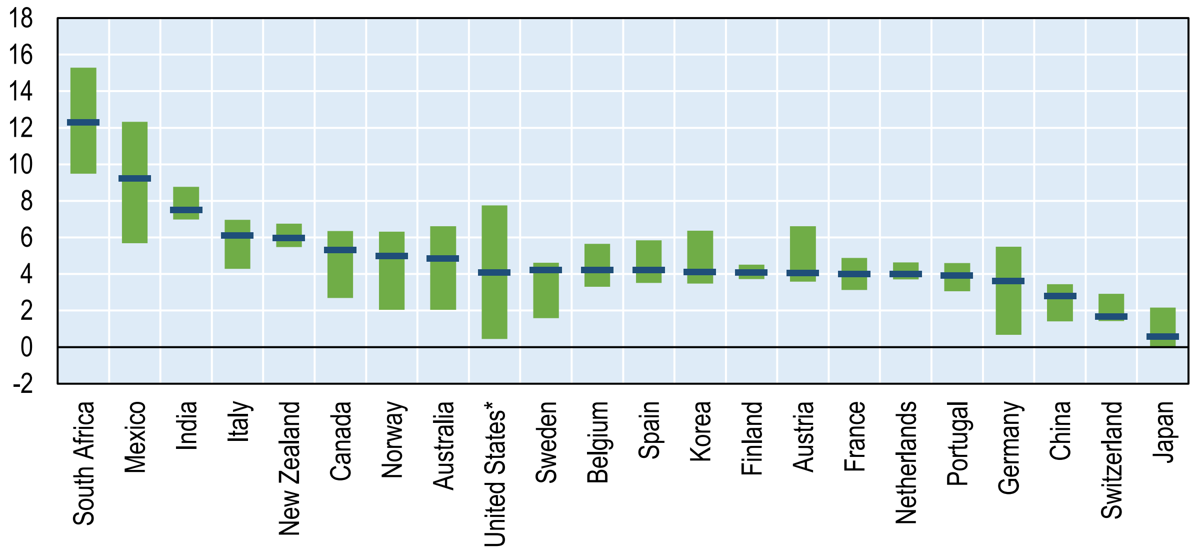
Considering only bond liabilities, the Nordic SNGs stand out as the most exposed to interest rate hikes. Yet to fully assess the size of the risks, this must be considered together with their overall level of debt and their expected near-term deficits.

South African SNGs exhibit a high share of short-term bonds, but with a zero share of floating rates, they may navigate well if they can hold back issuances until rates go down. Italy stands out for the high share of floating rates, which means that, even if they do not need to issue new debt in the near future, Italian SNGs may (already) suffer from a surge in interest payments. Again, this must be weighted by the value of the bonds outstanding.

Heterogeneity across SNGs' borrowing costs inside each country is small

In general, economic and fiscal heterogeneity is relevant (not to say large) across subnational entities inside many countries. These differences, however, do not translate into the borrowing costs in many cases. The plot in Figure 13 depicts the range of current yields-to-maturity[8] in the secondary markets as of October 2023 across SNG issuers within each country. It is noticeable that for some countries the variation is sizeable, reaching up to 6 percentage points for South Africa, Mexico and Japan, and 7 percentage points for the United States. In other countries – for example, India, New Zealand, Finland and the Netherlands – the variation of borrowing costs across different SNGs is very low. Broadly speaking, this could be a sign of friction in subnational bond markets. Some frictions that are common in the SNG universe are, for example, explicit or implicit guarantees from the central government, and the concentration of bonds in the hands of public banks or public companies.[9]

Figure 13. Yield-to-maturity across SNGs' bonds in secondary markets as of October 2023



Notes: Yields in percentage points. Green bars represent the range of yields from all bonds with amounts outstanding, with extremities at the minimum and maximum yields in each country. Blue lines represent the average. Three outliers were not counted: two bonds from the provinces of Ontario and Quebec, from Canada, with YTMs of 17.4% and 12.9%; and one bond from Seoul, Korea with YTM of 24.5%. Japan excludes foreign currency issues.
* US considers data only for primary market issues during Oct/2023 (2846 bonds, from 207 issuers in 40 states).
Source: LSEG-Refinitiv.

Homogeneity in rates reflects the market's similar pricing of credit risks of different jurisdictions, either because they have a similar fiscal situation or because the central government may step in and bail out SNGs. The latter approach can be particularly dangerous, as it reduces the market's role in disciplining SNGs' fiscal policy. In the case of rising borrowing costs due to fiscal profligacy, SNGs would be forced to improve their finances to avoid incurring higher borrowing costs. However, if borrowing costs are not responsive to SNGs' fiscal policy, SNGs may ultimately go unpunished for their poor fiscal management, leaving the burden to central governments.

[8] Overall return of the bond implied by its current price if the bond would be held until maturity.

[9] Information on explicit guarantees is scarce in this data set and implicit guarantees warrant further investigation.

Possible weak links in SNGs' debt sustainability could pose a large enough risk to become systemic

For central governments, it is crucial to assess whether possible weak links in SNGs' debt sustainability could pose a large enough risk to become systemic. In particular, the high volume of new issuances of subnational bonds in the last decade marked by very low interest rates and high liquidity provided by central banks has yet to be tested against financial market stress. The way each SNG bond market functions may be a determinant of how these may develop. On one hand, some countries show bond prices (yields) that are very stable and with little differentiation across SNGs, which may be seen as a sign of stability but could also mean that the market is not fully pricing in all of the risks. On the other hand, some countries show already sizeable time volatility and cross-sectional variance in SNG bond prices which may appear to reveal a sense of instability but can also mean that risks are already mostly priced in, so future corrections would tend to be less drastic.

To assess these risks, it is important to investigate in more detail the characteristics of these liabilities, including the heterogeneity across SNGs inside each country. For instance, though the country aggregates may not show high short-term debt relative to revenues, it may well be the case that just a few SNGs might otherwise be in a weak situation.

The way that individual subnational jurisdictions' situations translate into a need for action by central governments, or even direct fiscal costs, will then depend on each country's institutional settings.

With this in mind, the OECD Network of Fiscal Relations Across Levels of Government will extend the analysis described here into a full paper to be presented at the 20th Annual Meeting, in April 2024.

Points for discussion

- Do you share the outlook described in the Secretariat's background note? How exposed are your subnational governments to rising interest rates?
- What are the key risks posed by subnational governments' debt for central governments and economies more broadly?
- Do we adequately monitor subnational debt risks and fiscal sustainability? To what extent do subnational governments benefit from implicit/explicit bailout guarantees?
- Should we reform regulatory frameworks to address subnational debt vulnerabilities?
- What options exist to bolster subnational fiscal resilience moving forward?

REFERENCES

Bloomberg (2023). *China LGFV Bond Sales Boom Again as Beijing Steps Up Support.* https://www.bloomberg.com/news/articles/2023-09-19/china-lgfvs-in-yuan-bond-sales-boom-as-policy-help-gathers-pace#xj4y7vzkg

Dougherty, S., & De Biase, P. (2021). “Who absorbs the shock? An analysis of the fiscal impact of the COVID-19 crisis on different levels of government”. *Int Econ Econ Policy* 18, 517–540. https://doi.org/10.1007/s10368-021-00518-1

Holmes, A., Lancaster, D. (2018), “China's Local Government Bond Market”, *RBA Bulletin - Global Economy*, June, https://www.rba.gov.au/publications/bulletin/2019/jun/chinas-local-government-bond-market.html#fn*

Lam, W. R. (2019). “Chapter 5 Local Government Bonds”. In: *The Future of China's Bond Market*, Editor: Schipke, A., Rodlauer, M. and Zhang, L. International Monetary Fund. https://doi.org/10.5089/9781484372142.071

MDR – Mitteldeutsche Rundfunk (2023). *Einigung nach Konferenz: Länderchefs wollen einheitliche Bezahlkarte für Geflüchtete*. 14. Oktober. https://www.mdr.de/nachrichten/deutschland/politik/mpk-ministerpraesidenten-einigung-bezahlsystem-gefluechtete-100.html

NASBO – National Association of State Budget Officers (2023). *FY24 Enacted Budget Summaries*. https://www.nasbo.org/home

OECD (2023a). “The intergovernmental fiscal outlook and the implications of Russia’s war against Ukraine, high energy prices and inflation”, *OECD Working Papers on Fiscal Federalism*, No. 42, OECD Publishing, Paris, https://doi.org/10.1787/3623ab61-en

OECD (2023b), “Background Note: Intergovernmental Fiscal Outlook for 2023 and 2024”, OECD, Paris, https://www.oecd.org/tax/federalism/intergovernmental-fiscal-outlook-2023-2024.pdf

OECD (2022c). *OECD Economic Outlook, Volume 2022 Issue 2*, OECD Publishing, Paris, https://doi.org/10.1787/f6da2159-en

OECD (2023d), *OECD Economic Outlook, Interim Report September 2023: Confronting Inflation and Low Growth*, OECD Publishing, Paris, https://doi.org/10.1787/1f628002-en

OECD (2022e), *OECD Economic Surveys: China 2022*, OECD Publishing, Paris, https://doi.org/10.1787/b0e499cf-en

How to cite this document

OECD (2023), “Intergovernmental Fiscal Outlook for 2023 and 2024 – Interim Version”, OECD, Paris, https://www.oecd.org/tax/federalism/intergovernmental-fiscal-outlook-2023-2024-interim.pdf