

Don't Depend on the Denominator: Closing Deficits is Key to Public Debt Sustainability

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ABSTRACT

In recent years, governments have increasingly stepped into shore up their economies when confronted with major shocks, borrowing vast sums to prop up activity. But when considering overall fiscal sustainability, policymakers in advanced economies often focus on the difference between economic growth and the interest rate paid of their debt. Too often, this has led to a focus on growth as the primary means of reducing public indebtedness, with countries still running fiscal deficits. This paper challenges this narrative in Europe by examining how debt burdens in Italy and France would have evolved, with the weaker growth that would have been seen if fiscal deficits had matched Irish outcomes over the past ten years. It demonstrates clearly that actively closing deficits – even with the economic pain that causes – is a better means of ensuring fiscal sustainability than simply limiting deficits to 3%.

INTRODUCTION

Over the past two decades, governments around the world have been forced to step in and shore up their economies. As the only infinitely lived actor in the economy – with the ability for governments to rewrite laws and change the rules, if necessary, on top of promising future tax rises – the sovereign is normally the strongest domestic borrower in any nation. As such, the sovereign is normally the ultimate backstop and insurance mechanism against negative shocks. But that role has been played several times over the past two decades, with significant fiscal costs. The fallout from the Global Financial Crisis of 2007/8, the subsequent euro debt crisis that peaked in 2012, the COVID-19 pandemic, and the energy crisis amplified by Russia's invasion of Ukraine, have left sovereign debt at much higher levels than in the past.

Nowhere is this issue more important than in the euro area, where 20 countries now share a currency – but not a full fiscal union with automatic transfer mechanisms between member states. This leaves member states vulnerable to adverse debt dynamics that can quickly spiral out of control, as was evident in the three-euro area sovereign defaults seen in 2012 and 2013. While Europe has built a fiscal safety net in the form of the European Stability Mechanism (ESM), and in principle this can be leveraged by the European Central Bank (ECB) using Outright Monetary Transactions (OMTs), there is still no permanent, regular fiscal transfer mechanism to help address both structural and cyclical imbalances among member states. The Next Generation EU (NGEU) programme is a step in this direction, allowing the EU to borrow more substantially against its own name and transfer funds to members in the form of grants rather than loans. But it is still a temporary programme; and implementation challenges among some member states, such as Italy, are weighing on any prospect of this mechanism becoming permanent.

This means that the economic infrastructure of the euro remains fundamentally flawed [Ellis, 2019].

In response to this continuing gap in institutional fiscal arrangements, the European Commission has recently proposed another revision to the so-called 'fiscal rules' that are supposed to constrain member states' debt and deficits (EC, 2023). This proposal focuses on medium-term outcomes, and a 'net expenditure' adjustment target.

However, the Commission's proposal remains fundamentally flawed in one key dimension. That is the core focus of this paper, highlighting a critical issue that risk managers must be cognizant of whenever they are evaluating sovereign debt dynamics and creditworthiness. While this will be examined in the context of the EU and euro area, the principles apply more broadly.

A BRIEF RECAP ON EUROPEAN FISCAL RULES AND DEFAULTS

When the single currency was first debated, a key concern was how individual countries' distinct fiscal positions, and future spending and tax decisions, could be controlled so as not to become destabilizing and explosive. Unfortunately, those rules failed the ultimate test, as seen with the three sovereign defaults a decade ago.

When the Maastricht Treaty was first signed in 1992, it contained explicit reference to two fiscal metrics: a fiscal deficit of 3% of GDP, and a public debt target of 60% of GDP. As debt represents the accumulation of past deficits, the idea was that countries should aim to reduce high debt-GDP ratios even if their deficits in any particular year were small.

These reference values were enshrined in the Stability and Growth Pact (SGP) signed in 1997, which incorporated other guidance such as the aim that countries should average balanced budgets over the cycle. However, as Regling (2022) notes, the peer pressure among member states to support the effectiveness of the SGP was far from sufficient. This ultimately resulted in a number of revisions to the SGP – for instance focusing on 'structural' balances, and giving countries more time to correct large deficits – that ultimately led to countries enjoying more flexibility than they were originally meant to have. This was a key contributor to the destructive sovereign debt dynamics seen in the euro area after the Global Financial Crisis of 2007/8, with Greece, Cyprus, Ireland and Spain all receiving bail-out packages from a combination of other EU states and the IMF. Even these were not enough to contain fiscal risks: Greece defaulted twice in 2012, and Cyprus defaulted in 2013. Greece then came perilously close to leaving the euro area under the Syriza-led administration in 2015, with then Finance Minister Varoufakis proposing a parallel payment system (Varoufakis, 2019) that would have fractured the euro as a single currency.

Sadly, for all the arguments about structurally low interest rates and their implications, Europe is now no stranger to sovereign debt distress and default. As such, governments should do more than just pay lip service to sustaining their debt burdens. In fact, given the increasing reliance on sovereign balance sheets in response to negative shocks or stresses, fiscal authorities should actively reduce debt burdens over time, in order to re-create the "fiscal space" used up when banking or public health crises require the government to step in. In the same vein, longer-term

fiscal challenges posed by ageing populations and the rising real cost of healthcare necessitate control of debt dynamics in the shorter term, if sovereigns are to contain future default risks.

GROWTH VS INTEREST: HOW SOVEREIGN DEBT DYNAMICS EVOLVE

A key issue around the EU rules is the nature of the measures – both the deficit and debt are expressed in terms of percentages of GDP. Purely by itself, this is relatively uncontentious – bigger economies, other things being equal, should be more able to tolerate larger nominal borrowing. But, at the same time, it creates a temptation for policymakers to just bank on growth to reduce debt-GDP, rather than requiring them to actively focus on borrowing as well. The underlying economics is well understood here. In steady state, we would expect the nominal size of the economy to increase in line with trend (real) growth, and some measure of inflation consistent with the inflation target. Meanwhile, if sovereigns run balanced budgets, then nominal debt will increase by the effective interest rate paid on that debt. This leads to the following key condition:

$$r < g$$

where r is the effective nominal interest rate paid on outstanding debt, and g is the trend growth rate of (nominal) GDP. Provided this condition is satisfied, then debt-GDP will fall over time if governments run balanced budgets.

In fact, the gap between g and r is often thought to be large enough that governments can run small deficits – say 3% of GDP – and still see debt-GDP fall over time. Notwithstanding recent high inflation rates, this gap will likely diminish over time as ageing populations weigh on trend growth and effective interest rates (gradually) rise.

This is obviously instinctively attractive to politicians: it is much easier, politically, to postpone difficult decisions on spending cuts and tax rises that may be politically unpopular, and instead just rely on growth to reduce debt-GDP. This is especially true if governments are able to continue running small fiscal deficits.

Unfortunately, this approach has obviously not worked. And this is not just because of large shocks that have forced governments to intervene in their economies. Even in calm times, many governments have failed to meet the original aim of the SGP, most obviously by failing to run fiscal surpluses to keep average deficits near zero over the cycle as a whole.

WHAT DOES PAST EXPERIENCE TELL US?

This point is readily illustrated by comparing the experience of different EU countries over the past two decades. Exhibit 1 presents debt as a percentage of GDP for selected euro area countries, while Exhibit 2 presents the accompanying fiscal deficits (or surpluses). Within the EU, there have been those countries that have actively managed the public finances towards balanced budgets even after large negative shocks, and those that have not. Put simply, if the goal to reduce public debt, then targeting a 0% fiscal deficit is significantly better than targeting a 3% deficit.

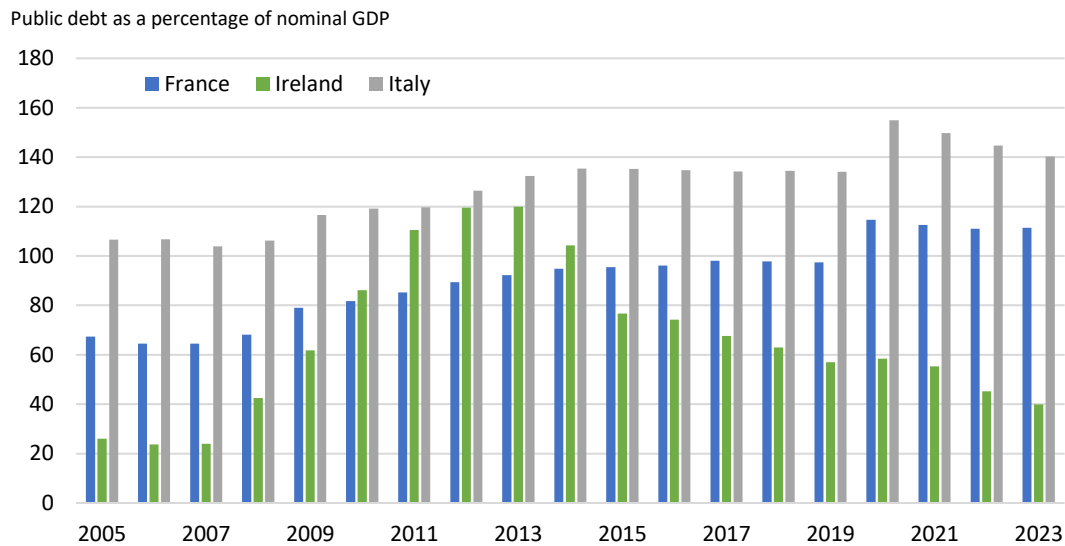


Exhibit 1: Public debt to GDP ratios for selected euro area countries

Source: IMF

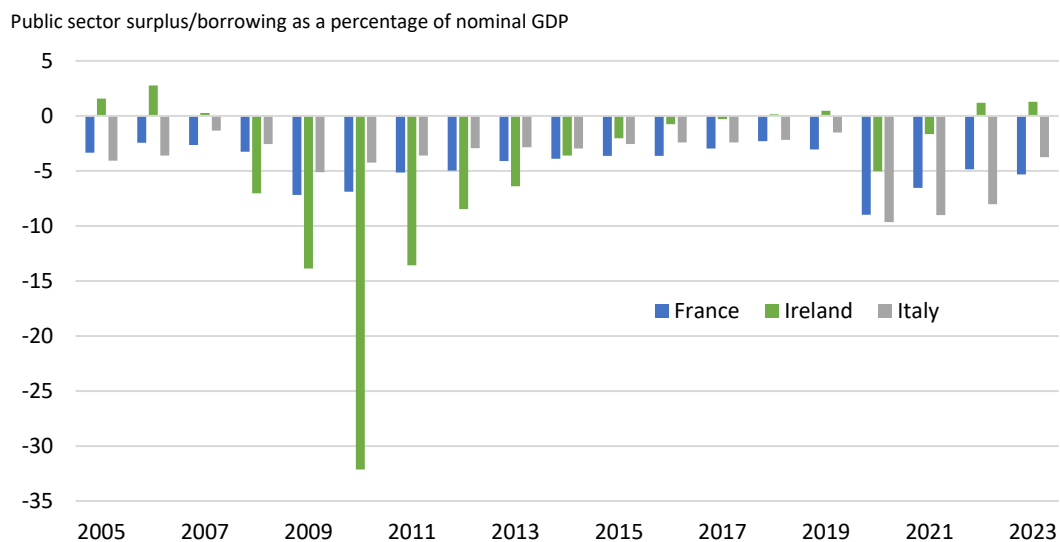


Exhibit 2: Public borrowing/surplus as a percentage of GDP for selected euro area countries

Source: IMF

However, differences between different countries mean that it is also a valid question to ask whether different countries would have fared similarly if they had adopted the same fiscal stances as their peers. That is the key focus of this analysis.

WHAT IF FRANCE AND ITALY HAD COPIED IRELAND'S DEFICIT DISCIPLINE?

The benchmark used here is Ireland, although in principle this analysis could be replicated for different fiscal paths. However, Ireland's progress in reducing debt-GDP over the past decade has been nothing short of remarkable. Following an enormous fiscal shock that saw debt-GDP jump significantly during the GFC and its aftermath, Ireland has made a conscious effort to

reduce its debt stock over several years. Those efforts have unambiguously borne fruit; Irish debt-GDP will have fallen by around 80 percentage points (ppts) between 2013 and what we are likely to see 2023. Ireland has conclusively demonstrated that it is perfectly possible to reduce debt-GDP significantly – even within the euro area – if the commitment from elected policymakers is there.

It is tempting to put Ireland's progress solely down to the robust GDP growth that it has enjoyed over the past decade. But in order to truly test this, we need to examine what would have happened in other highly indebted countries if they had match Ireland's fiscal discipline. For the purposes of this exercise, we use France and Italy.

As a simple starting point, we examine the trajectory of debt-GDP in these countries if France and Italy had matched Ireland's fiscal policy – in particular the change in the outright deficit from year to year (as ppts of GDP) – over the past decade. This is based on the observation that debt in any period reflects the previous period's debt, plus any new debt accrued (or paid back) in new fiscal deficits (or surpluses), plus other idiosyncratic factors such as valuation adjustments (sometimes called stock-flow balancing items). For simplicity, we do not change the latter for either France or Italy.

A first assumption is to keep French and Italian GDP growth unchanged – that is, to completely discount the stronger economic growth Ireland saw over this period. Under this assumption, the transformation in French and Italian debt-GDP profiles is enormous (Exhibits 3 and 4). French debt-GDP would have fallen by 42ppts between 2013 and 2023. Italian debt-GDP could have fallen from 132% of GDP in 2013 to 64% this year. Neither country needed to experience the same growth that Ireland did to reduce debt-GDP: all they needed to do was close their budget deficits.

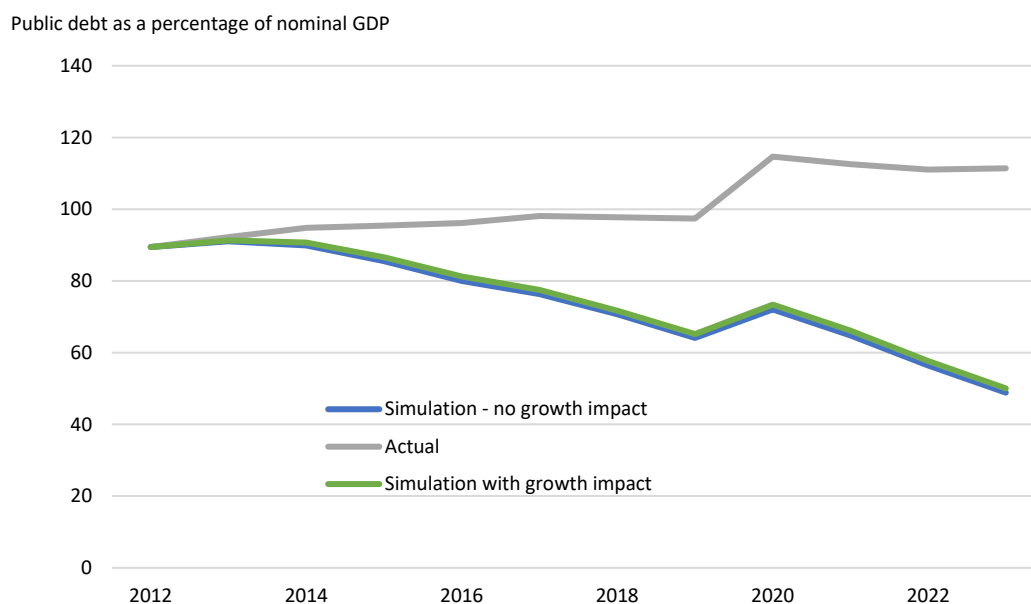


Exhibit 3: Actual and simulated French debt-GDP

Source: IMF and author's calculation

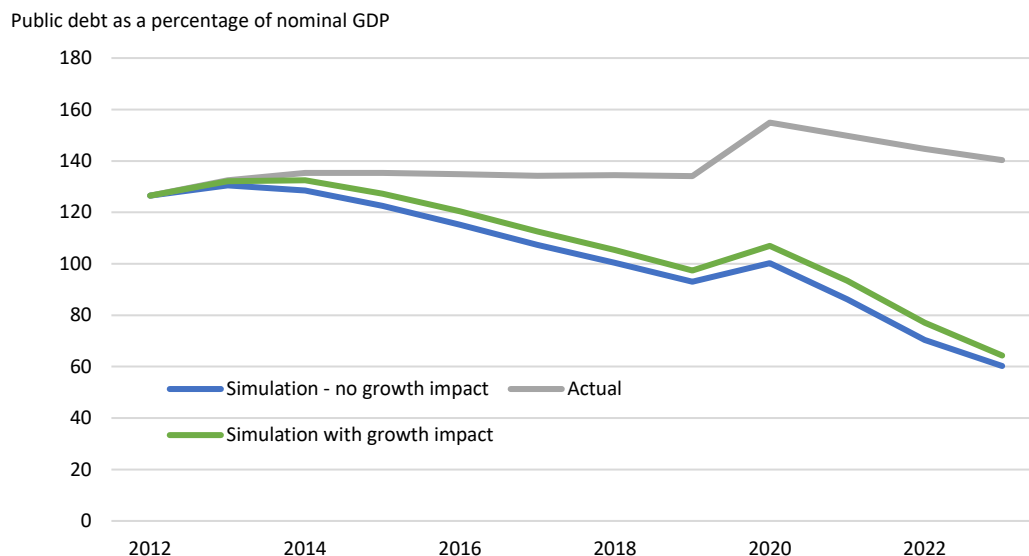


Exhibit 4: Actual and simulated Italian debt-GDP

Source: IMF and author's calculations

The assumption that growth would be unaffected is however a little unfair: it is well established that fiscal tightening – deficit reduction – tends to weigh on GDP growth. So, for completeness we should also adjust French and Italian GDP for the impact of deficit reduction in the simulation.

To do this, we need an estimate of how much GDP changes when the fiscal balance changes – or estimates of the fiscal multiplier. Batini et al (2014) provide an excellent discussion of fiscal multipliers, including how to estimate and how to use them. For the purposes of this analysis, we will use long-run fiscal multipliers calculated by Moody's (2021). The use of long-run multipliers is deliberate as this analysis is focusing on debt trajectories over the longer term; it is helpful to abstract from short-term volatility in growth due to fiscal tightening. These long-term multipliers are also consistent with the fact that most of the fiscal 'tightening' in this scenario analysis happens at the start of the period, from 2013 to 2016. In line with the consensus in the literature, the multipliers for France and Italy are less than unity; this implies that a €1 reduction in the deficit will reduce GDP by less than €1.

The resulting debt-GDP profiles – under these weaker growth paths adjusted for fiscal tightening – are also shown in Exhibits 3 and 4. In fact, the fiscal tightening has a very small impact on growth, with the biggest effect coming at the start of the scenario analysis in 2013. Exhibit GGG plots the growth rate differentials from the fiscal tightening that would have ensued if France and Italy had followed Ireland's deficit reduction. While there is some negative impact on growth – more notable for Italy, where the fiscal multiplier is larger – it is relatively small compared with the volatility that is readily evident in the reported GDP data.

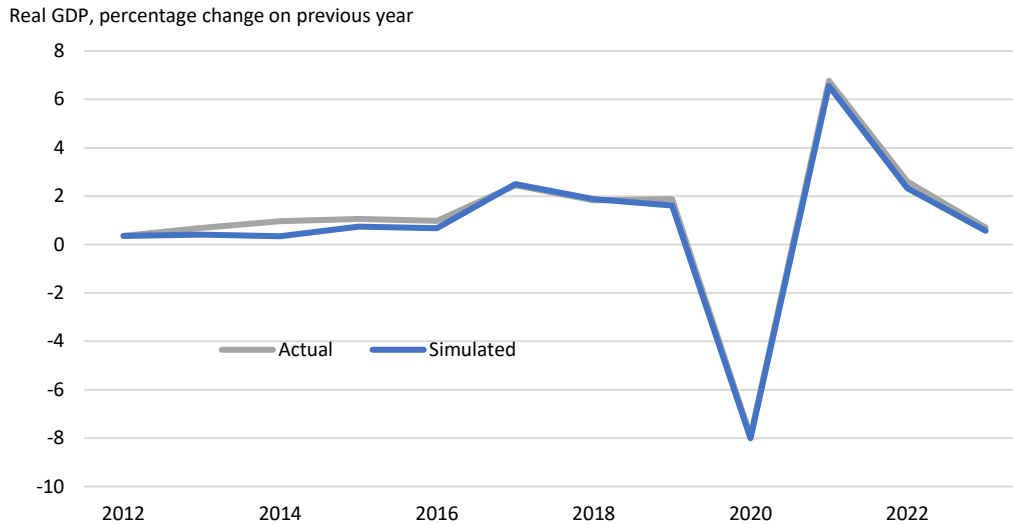


Exhibit 5: Actual and simulated French GDP growth

Source: IMF and author's calculations

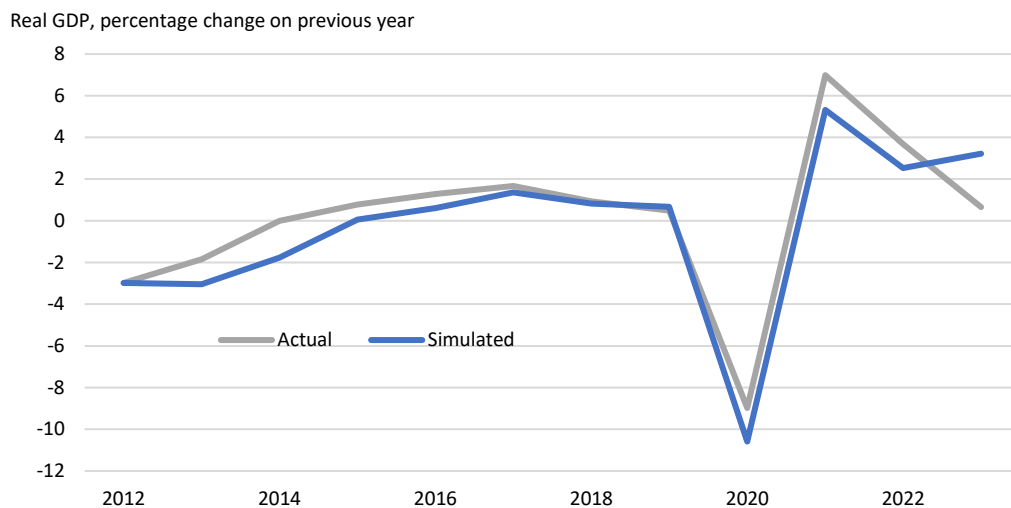


Exhibit 6: Actual and simulated Italian GDP growth

Source: IMF and author's calculations

SENSITIVITY ANALYSIS CONFIRMS IMPORTANCE OF BALANCED BUDGETS

The conclusion above is stark – if France and Italy had matched Ireland's deficit changes since 2013, their debt-GDP ratios would have shrunk significantly even without them matching Ireland's growth. As with all modelling and quantitative analysis, it is important to test the robustness of these results with sensitivity analysis.

Changing the fiscal multipliers within the sensible bounds noted by Batini et al (2014) – typically did not have a big impact on the key result of significant debt reduction. And smaller deficit reduction assumptions – moving to a balance budget on an asymptotic basis – still led to significant falls in debt-GDP ratios for France and Italy.

In addition, we present results focusing on the change in Ireland's primary deficit position as an illustration. In practice, it may be more accurate to examine fiscal deficits after interest payments (on past accrued debt) have been made, as different countries can face different interest rates. In order to do this, we need an extra assumption about interest payments: for the purposes of this piece, the effective interest rate observed in the data was applied to the simulated debt stock. (In practice, this may be an upper bound as lower debt may also be reflected in lower effective interest rates, other things being equal.)

This 'primary surplus' scenario resulted in similarly large reductions in debt-GDP if France and Italy had copied Ireland (Exhibits 7 and 8). In part, this likely reflects the fact that sovereign spreads in the euro area narrowed significantly and remained low after Draghi's famous 'whatever it takes' intervention in 2012.

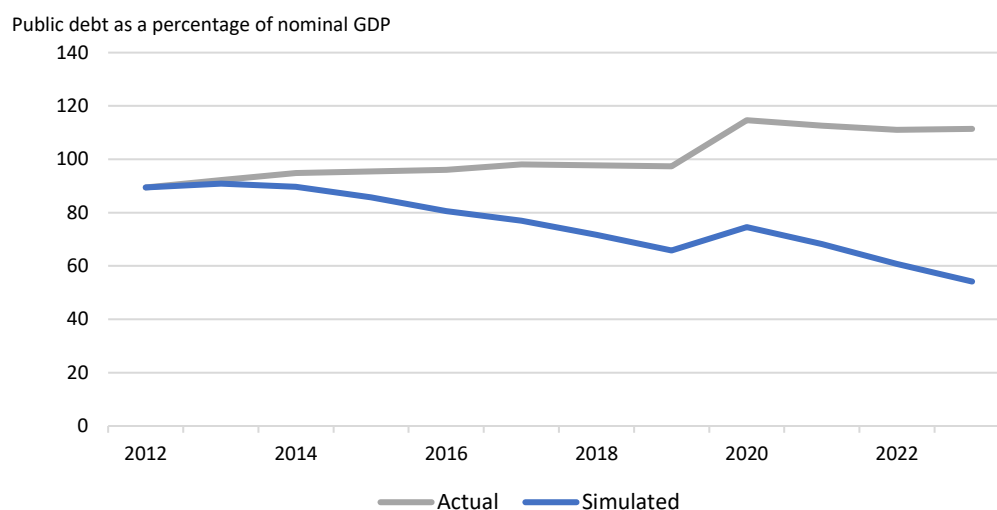


Exhibit 7: Actual and simulated French debt-GDP, primary balance scenario

Source: IMF and author's calculations

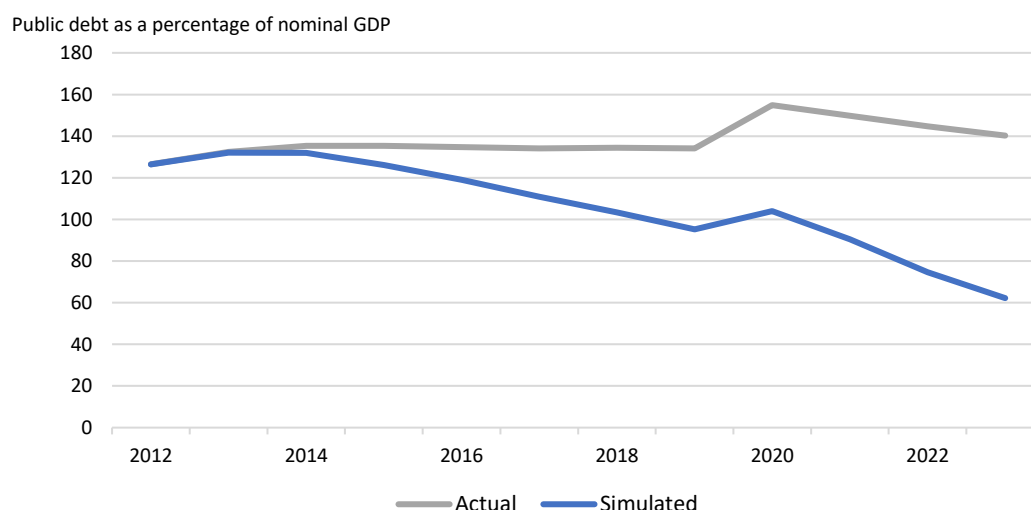


Exhibit 8: Actual and simulated Italian debt-GDP, primary balance scenario

Source: IMF and author's calculations

In short, the sensitivity analysis suggests the central result of this paper is robust. France and Italy could have successfully and substantially reduced debt-GDP ratios over the past decade if they had matched Ireland's record in gradually reducing fiscal deficits. Notwithstanding debates about the 'quality' of public spending, simply balancing the books should be a priority.

NO NEED TO TEST THE ECB'S CREATIVE POLICYMAKING APPROACHES

It is also notable that this analysis in no way relies on central bank support to contain fiscal risks. Within the euro area, the European Central Bank (ECB) has created two mechanisms that allow it to intervene in bond markets to support individual countries (rather than its more general quantitative easing programme where purchases are spread across member states).

The first – Outright Monetary Transactions, or OMTs – was created in September 2012 after Draghi's famous remarks earlier that year. (The ECB had previously purchased single countries' securities under its Securities Markets Programme, which was terminated when OMTs were introduced.) In essence, OMTs leverage the fiscal firepower of the European Stability Mechanism (ESM). Provided a country is complying with an ESM adjustment programme (or a precautionary programme), then using OMTs the ECB can purchase a potentially unlimited quantity of that country's bonds in secondary markets. The requirement of a programme ties OMTs to the conditionality normally attached to ESM support – so OMTs are not "free money" for governments. But unlike the strictly limited resources that the ESM can provide, the central bank can always create more money if needed. To date, OMTs have never been used, although it is unclear whether that solely reflects the lack of any need, or partly governments' aversion to the conditionality that comes with ESM programmes.

The second mechanism is the so-called Transmission Protection Instrument, or TPI, announced by the ECB in July 2022. The objective of TPI is to ensure that the monetary policy stance is transmitted smoothly across all euro area countries, with particular focus given to market movements in sovereign bond yields. Where that is deemed to happen, the ECB can again intervene in potentially unlimited fashion make purchases in secondary markets for the affected countries.

The crucial caveat with TPI is that purchases are only permitted where countries are deemed to be experiencing "a deterioration in financing conditions not warranted by country-specific fundamentals" (European Parliament, 2022). It remains unclear whether the ECB is able to objectively determine this by itself. Such assessments are available from other entities such as Credit Rating Agencies, who routinely assess fundamental credit risk and offer comparisons with market signals such as bond yields. For instance, the fundamental sovereign rating for Italy from Moody's, and the 'market implied rating' (or MIR) from bond yields – the credit signal from the market – is shown in Exhibit 9.

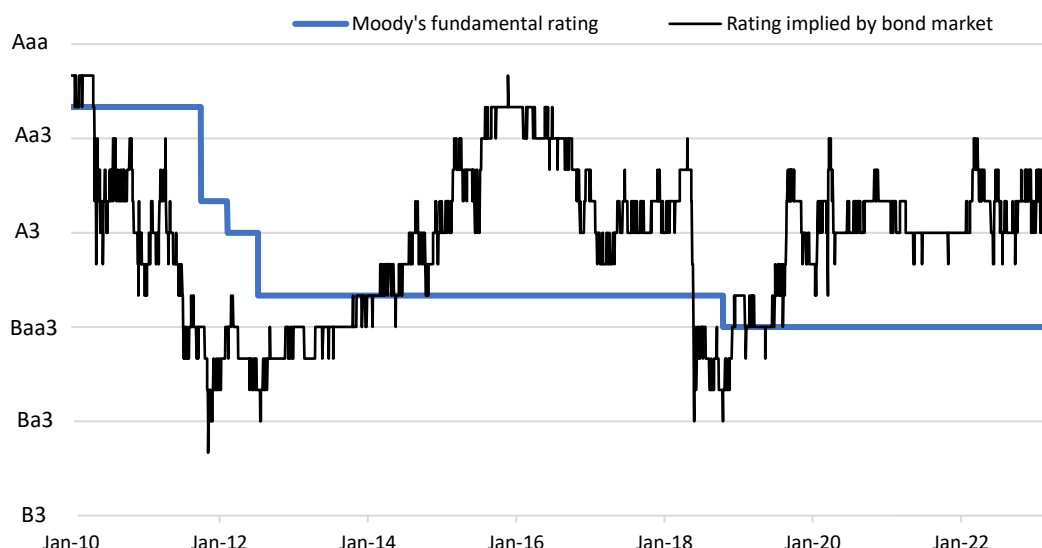


Exhibit 9: Fundamental credit risk and market implied credit risk for Italy

Source: Moody's.com

Based on this analysis, it is clear that there is currently no justification for the ECB to use TPI to support Italy in bond markets. There was arguably some case in mid-2018, where the market rating fell below the fundamental one. But at the time of writing (May 2023) the MIR is currently 5 whole notches higher than Moody's fundamental rating: and it would need to fall below that fundamental rating – a decline of 6 notches, which would reflect a significant jump in bond yields – in order to claim that Italy's financing conditions were 'not warranted' by the fundamentals reflected in Moody's credit rating.

Legally, this is dangerous territory for the ECB. If it made an assessment of financing conditions that was not consistent with objective assessments from established third parties like CRAs, it would leave itself open to significant legal risk, for instance at the German Constitutional Court in Karlsruhe. The lines between fiscal and monetary policy have already been blurred, despite Article 123 of the EU Treaty prohibiting monetary financing of public spending.

Ultimately, the ECB's exposure to this legal risk may depend on governments' willingness to actually close their deficits. Instead, they may hope that the new version of the SGP suddenly inspires unwarranted credibility in financial markets, or rely on implicit ECB support until it is suddenly needed and tested. But that could already be too late.

POLITICAL WILLINGNESS, NOT ECONOMIC CONSTRAINTS, ARE OFTEN THE BARRIER TO DEBT REDUCTION

The obvious conclusion here from the analysis presented here is sovereigns should actively manage their debt stocks, and not rely on help from the central bank. If the goal is to actively reduce debt burdens, both following past crises and to prepare for future ones, nor should sovereigns rely on GDP growth. It is not enough to hope that the denominator of the debt-GDP ratio rescues you. Instead, governments should actively reduce deficits – albeit at a relatively measured pace – if they are serious about bringing det-GDP down. Even with its poor track record on growth – and likely somewhat weaker outcomes if fiscal tightening had followed the

path seen in Ireland – Italy would have been able to reduce its debt-GDP ratio significantly since 2014, without requiring Ireland's growth trajectory.

The subsequent conclusion from this analysis is that it is willingness, not capacity, that stops governments reducing debt-GDP over the longer term. The temptation to just sit within the fiscal rules – including the Commission's latest attempt to boost their credibility – is too often winning out for European governments. They are content to target a 3% deficit, rather than a balanced budget: if debt reduction is the goal, this is wrong. It is much better to target a fiscal deficit of 0% of GDP – a balanced budget – than to target any notion of a small, manageable deficit.

The analysis herein holds significant implications for risk managers. It most obviously applies to those risk managers where sovereign debt plays an important role; but given the critical role that sovereigns play in setting the scene for domestic banks, companies and other entities, it is also relevant for broader credit risks and related concerns.

Ordinarily, risk managers assess the risks around sovereign debt sustainability by considering a number of factors. These include, but are not limited to, the budget deficit and overall debt stock, normally measured in terms of GDP. Further granularity can include considerations such as economic and political stability within the sovereigns considered, and particular external risks such as foreign currency debt and exchange reserves. In addition, factors such as interest rate risk, liquidity risk, and any support mechanisms that may be available are also important. It is notable that sharp movements in economic or political stability are limited for advanced economies; even the prospect of Donald Trump potentially returning as US President in 2025 must be tempered by the acknowledgement that US institutions held up relatively well during his first term, despite his often-hostile rhetoric. Similarly, liquidity risk is rarely front and centre for advanced economies with deep and liquid bond markets.

So instead, risk managers' analysis of sovereign indebtedness for advanced economies often focuses on the fiscal metrics; and in particular the dynamic path of debt-GDP. Debts or deficits in any one year are not as important as the profile of how debt evolves over time.

Often, risk managers can spend significant time trying to unpick movements in aggregate deficits (or debt) into those that reflect the economic cycle, those that are more persistent and long-lasting, or just one-off idiosyncrasies that will not be repeated. Over time, these sorts of decompositions have been reflected in the so-called 'fiscal rules' that some sovereigns and EU institutions have tried to impose on themselves. Unfortunately, these decompositions are highly uncertain and subject to revision, significantly complicating the assessment that risk managers must make.

The central lesson from this analysis is that these sorts of analyses are not critical to uncovering broad trends in future debt dynamics. In particular, if sovereigns are serious about reducing debt burdens over time – something that will become increasingly pressing for many European countries as populations continue to age – then focusing on the primary balance or structural deficit is largely unnecessary. Similarly, having a fiscal rule that is supposed to limit increases in spending to below some notion of 'trend' growth is a frivolity too far. If governments are

serious about reducing debt-GDP ratios, they should simply aim to reduce the fiscal deficit to zero as quickly as possible; and thereafter run balanced budgets (or even surpluses) on an ongoing basis. If reducing debt-GDP is the focus, this is enough. Much of the supplementary analyses of primary deficits, cyclically-adjusted data and growth matches are of third-order use at best.

This insight also offers a simple indicator for risks managers when they are assessing risks relating to the sustainability of government debt across countries. Those countries running balanced budgets are serious about reducing debt-GDP ratios. But those that are not balancing budgets – and perhaps only targeting 3% deficits – are more likely to be paying lip service to managing high debt loads, rather than actively reducing them.

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