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Rethinking Debt Sustainability?

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Segui Editrice Minerva Bancaria su: 

Sommario

Rethinking Debt Sustainability?

EDITORIALE

- 5 Rethinking Debt Sustainability?
Lorenzo Codogno, Pietro Reichlin

SAGGI

- 25 Sovereign debt in times of crises
Carmine Di Noia
- 39 A new look at public debt sustainability
Ludger Schuknecht
- 65 Debt sustainability in emerging market economies after the
Covid-19 shock
William R. Cline
- 121 Debt sustainability analysis is back. Sudden shifts in underlying
factors may push high-debt countries into a bad equilibrium
Lorenzo Codogno, Giancarlo Corsetti
- 143 The (un)sustainability of public debt: the elusive reality of an
intuitive concept
Martin Larch

- 185 A post-Covid-scenario analysis of Italy's public debt ratio dynamics
Cecilia Gabbriellini, Gianluigi Nocella, Flavio Padrini
- 211 The future of European fiscal governance: a comprehensive approach
Marzia Romanelli, Pietro Tommasino, Emilio Vadalà
- 265 Public debt sustainability, fiscal rules and monetary policy
Angelo Baglioni, Massimo Bordignon
- 289 Reconciling fiscal and environmental sustainability in the Eurozone
Paul van den Noord

RUBRICHE

- 325 Appunti sulla stagflazione
Mariano Bella, Luciano Mauro
- 335 Come una grande banca può aiutare le medie imprese esportatrici a fare il salto dimensionale
Fabrizio Guelpa

Debt sustainability analysis is back. Sudden shifts in underlying factors may push high-debt countries into a bad equilibrium

Lorenzo Codogno*
Giancarlo Corsetti**

Abstract

After Covid, the massive EU Recovery Plan aimed to support investment activity through grants and loans at close-to-zero interest rates on expectations that it would boost the economy and enhance potential growth. Meanwhile, the ECB heavily bought government bonds, and interest rates were below zero. Debt sustainability analysis was de facto suspended, and financial markets were under anaesthetics. But then the conflict in Ukraine, the related spike in inflation, and the turn in the interest rate cycle changed the situation. The fundamental drivers of debt sustainability are back. Higher interest rates, lower economic growth and the need for fiscal support for cyclical and structural reasons may push debt dynamics into bad equilibrium. We look at the Italian situation.

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Sintesi - L'analisi della sostenibilità del debito torna ad essere importante. Improvvisi cambiamenti nei fattori sottostanti possono spingere i paesi ad alto debito verso un cattivo equilibrio

Dopo il Covid, l'Unione Europea varava il massiccio Recover Plan allo scopo di sostenere gli investimenti attraverso sovvenzioni e prestiti a tassi di interesse prossimi allo zero, con l'intento di stimolare l'economia e aumentare la crescita potenziale. Nel frattempo, la BCE acquistava massicciamente titoli di Stato e i tassi di interesse erano sotto lo zero. L'analisi della sostenibilità del debito era di fatto sospesa e i mercati finanziari erano sotto anestesia. Ma poi il conflitto in Ucraina, la relativa impennata dell'inflazione e la svolta nel ciclo dei tassi di interesse hanno cambiato la situazione. I fattori fondamentali per la sostenibilità del debito sono tornati al centro della scena. Tassi d'interesse più alti, crescita economica più bassa e necessità di sostegno fiscale per motivi ciclici e strutturali possono spingere le dinamiche del debito verso un cattivo equilibrio. Questo articolo analizza in particolare la situazione italiana.

JEL Classification: E60; E62; H62; H63; H68.

Parole chiave: *Debito Pubblico; Analisi di sostenibilità del debito; Politica fiscale; Crisi finanziarie; Sviluppo economico.*

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1. The post-Covid policy setting is over

The literature on debt sustainability has undergone a remarkable evolution in recent years. Just before the beginning of the COVID-19 pandemic, in a provoking paper Blanchard (2019) argued that higher debt-to-GDP levels might have become more sustainable than in the past. “When the safe interest rate is less than the growth rate [...] both the fiscal and welfare costs of debt may then be small, smaller than is generally taken as given in current policy discussions.” The argument was that persistently low interest rates relative to nominal GDP growth would have enhanced the debt-carrying capacity of countries.

In September 2020, we published an article on “Post-pandemic debt sustainability in the EU/euro area: This time may (and should) be different.” We argued that the policy response to the pandemic crisis added a novel dimension, i.e. ex-post insurance against shocks provided jointly by the ECB and the EU budget. In conjunction with the lifting of fiscal rules, regulatory changes, and the expansion of national budgets, it represented a sort of policymakers’ put option to avoid systemic stress and financial instability, thereby limiting any risk of sovereign default.

We argued that the post-Covid scenario was something special: (1) nominal interest rates were at or below zero for AAA-rated sovereign issuers and for the EU, (2) the multipliers may have been higher than usual after the Covid shock, (3) the low-inflation environment was not expected to suddenly turn, as indeed did only a year later, and thus only a lagged and moderate monetary reaction was required once inflation started to move higher as a result of the stimulus, (4) all EU/Eurozone countries were introducing a broadly similar fiscal support through investment at the same time, and this was expected

to amplify the positive effect on GDP growth, (5) duration and maturities of public debt had been lengthened over the years, allowing a long period of very low debt servicing costs, (6) for many EU countries, the fiscal stimulus (the grant component) was not about to deteriorate their debt-to-GDP ratio, i.e. it was a sort of manna from heaven, as it was expected to be partly repaid through EU taxation only over the long run.

In the past, Samuelson criticised “pump-priming [...] acting as a catalyst to speed the upward movement of investment ... or form the spark to ignite business activity ...” This view does not invalidate (and is still very much valid in) the *NextGenerationEU* (NG-EU) world, as the spark for enhanced potential growth is supposed to come from innovation and technological change, *not* a stimulus to demand. Yet, the possibility of financing growth-enhancing investments at zero rates for an extended period made debt sustainability analysis look pretty different than in the past. It provided an extended lease of life to over-indebted and growth-lacking economies, such as the Italian one (see, e.g., Codogno and van den Noord, 2021a, 2021b, and 2021c).

We also pointed out that if investment activity were not efficient and multipliers proved to be much lower, or the monetary policy reaction was more substantial and quicker, then sustainability issues would have emerged sooner rather than later. On investments and multipliers, the jury is still out. But the combination of persistently higher inflation and structurally higher interest rates now undermines hopes for a ‘different paradigm.’ Indeed, we are back to the old debt-sustainability fundamentals.

The Japanese experience suggests that, as long as inflation remains under control, the central bank can continue to provide the necessary support by purchasing government bonds in the secondary market and maintaining interest rates at zero or even below zero for an extended period of time. In the

euro area, in the past few years, the ECB had the possibility to amplify such an effect by intervening specifically in favour of high-debt (vulnerable) countries, i.e., by allowing significant temporary deviations from its capital key in the allocation of bond purchases. Under the heading of ‘reducing fragmentation,’ it was *de-facto* helping troubled high-debt countries and maintaining low government bond yield spreads vis-a-vis perceived risk-free German benchmarks (see Corsetti and Dedola, 2016, for an analysis of the rationale for such policies).

The ECB could and did deliver the monetary component of the European insurance because interventions were aligned with its mandate to maintain price stability. National debt was sustainable by definition as the central bank committed to purchase it in large amounts. This was pretty much aligned with the ECB’s effort to bring inflation back on target after many years of below-target performance. Now, policy objectives are colliding. The need to counteract the spike in inflation forces the ECB, along with most other central banks, to increase interest rates. To the extent that it may also require ‘quantitative tightening,’ i.e. the reduction of the stock of government bonds in central bank balance sheets, yields and spreads may grow higher over time.

2. ECB’s commitment to price stability and government bond spreads

What would happen if inflation keeps rising, as it did in late 2021 and 2022, driving interest rates even higher? Would it compromise debt sustainability? How long can governments’ policies remain credible amid rising

debt-to-GDP ratios?

The EU's investment stimulus is already at work, but it will likely be offset by the massive squeeze in household real disposable income and company profits due to the cost-of-living crisis, which will drive down demand. As a result, the GDP deflator will end up much lower than consumer price inflation. For some time at least, nominal growth will no longer be sufficiently strong to support the rising cost of borrowing. What really matters, however, is the situation at regime, once temporary shocks dissipate.

Indeed, the three primary variables that determine sustainability will all be affected by a potential change in the long-term outlook: nominal GDP growth (as a result of real GDP growth but also the GDP deflator), the primary balance, and the interest rate burden. Further insight may be gained by splitting the interest burden into three components: policy interest rate, the term premium on risk-free bonds, and the credit risk premium.

In the past, the ECB implemented quantitative easing by buying bonds in excess of the government's financing needs. Crucially, this kept financial markets in a calm state that appeared justified considering that inflation had hardly moved upward over the previous 20-25 years, giving rise to a literature that revives the so-called secular stagnation hypothesis. The inflation risk was perceived as very low, and central banks could err on the side of caution and aim for an inflation overshooting, supporting fiscal policy along the way. As central banks were heavily buying government paper, financial markets could no longer price the risk of default by relying on traditional indicators, as their metric was heavily distorted. Moreover, there was widespread scepticism about the wisdom of assessing debt sustainability with the traditional tools of Debt Sustainability Analysis (DSA), given the high uncertainty about economic growth, the effect of post-Covid policies and the expected persistence

of the below-zero interest rates environment. The role of financial markets as guardians of fiscal discipline was impaired, as well as their reliability in appropriately pricing risk.

Today, policymakers and academics are heavily debating whether and to what extent the spike in inflation experienced since the end of 2021 is linked to transitory as opposed to more persistent factors. Arguments weigh the role of supply-side changes driven by the Covid pandemic, supply-chain disruptions, uncertainty on trade policies and possible de-globalisation, structural shifts in the market for energy, the climate change transition, and implications of a potentially larger-scale military conflict in Ukraine. All these factors are indeed likely to bring a structural increase in cost and price *levels*. In particular, any damage to aggregate supply due to lower productivity and higher costs should not be underestimated. A permanently lower potential output means that a modest increase in demand may already build tensions on prices.

Central banks will have to ensure that relative prices and costs, as well as their levels, adjust to the new equilibrium without igniting persistent drifts in wages and inflation expectations above target. In today's uncertain environment, with inflation spiking, central banks have little choice but to frontload interest rate rises in an attempt to maintain credibility and avoid de-anchoring expectations and a price-wage spiral. The key collateral effect is a sudden and sharp rise in the cost of sovereign borrowing, which cannot but undermine any residual debt sustainability optimism.

It is worth stressing that inflation is not a way to restore sustainability by reducing the real value of government (and private) liabilities. In fact, today's inflation is mainly driven by a terms-of-trade effect that makes all energy-consuming economies poorer, hence reducing taxation and possibly boosting spending needs. Furthermore, the rise in consumer inflation is not

mirrored by the GDP deflator. While inflation reduces the value of debt in terms of consumption, it does not reduce it in terms of income. Indeed, the opposite could be argued: the real debt burden may have risen.

Looking ahead, suppose central banks do not maintain inflation expectations in line with policy targets, feeding a sustained rise in GDP deflator inflation. In this case, historical evidence suggests that financial markets will soon build in a higher (inflation) risk premium in government bond yields, driving up the cost of borrowing in real term. The interplay between nominal growth and borrowing costs easily produces counterproductive effects.

Along with its renewed commitment to price stability, the ECB is very much committed to avoiding fragmentation in the transmission of monetary policy, thus maintaining government bond spreads within certain undisclosed thresholds. First, in explaining its reinvestment policy, the ECB stated: “Redemptions coming due in the PEPP portfolio are being reinvested flexibly, with a view to countering risks to the monetary policy transmission mechanism related to the pandemic” (8 September 2022). Second, and even more important, it decided to set up a new Transmission Protection Instrument (TPI), which is now available “to counter unwarranted, disorderly market dynamics that pose a serious threat to the transmission of monetary policy across all euro area countries, thus allowing the Governing Council to more effectively deliver on its price stability mandate.” Policy actions may well be able to maintain the component of government bond spreads related to credit risk under control. But even leaving this component out of our analysis, the situation may become tricky.

3. Some stylised facts about debt sustainability

We illustrate our points with two examples by using evidence for Italy. Italy's economy and fiscal outlook are potentially vulnerable to major shifts in expected fundamentals because of its high public debt-to-GDP ratio. Our exercise below is simple. We compare two 'worlds'. First, we focus on the world before the recent inflation spike. In line with the pre-Covid academic and policy views, we make assumptions about the long-term equilibrium values projected at that time. In the post-Covid and post-NG-EU environment, growth was supposed to be supported for several years by policy measures, while inflation was due to return to target gradually. Monetary policy could have reverted to neutral rates over time, even erring on the cautious side as the inflation risk was perceived to be low. Second, we turn to the new world, factoring in the current significant shifts in the long-term equilibrium of the key variables that matter for sustainability.

Before we delve into these exercises, let us recap some basic principles of debt dynamics. Government debt is the stock of government bonds sold to the private sector in the past. For simplicity, we ignore that part of it is in the balance sheet of the European System of Central Banks, i.e. mainly of the ECB and the Bank of Italy, which is part of the broad government sector. Ultimately, to finance its expenditure, including that for interests on outstanding bonds, the government can use taxation or the sale of new bonds, but not the 'printing press,' due to the ECB's independence and supra-national role. The deficit can be split into a primary deficit and the interest payments on the debt. The change in debt is given by the debt at the beginning of the period plus the primary deficit of the period (government expenditure net of interest expenditure minus tax revenues) and the interest payments on the

debt. Our main interest is the evolution of the government debt relative to national income, as this determines the country’s income capacity to service the debt. Consistently, we re-write the content of the above sentences in terms of a familiar budget identity, where all variables are scaled by GDP:

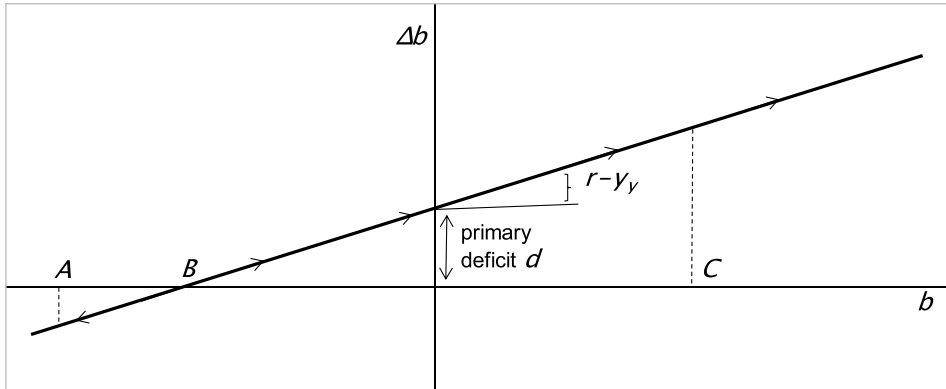
$$\Delta b = d + (i - \pi - y_y)b = d + (r - y_y)b$$

This expression says that the change in the debt-to-GDP ratio in, say, a year, Δb , is produced by that year’s primary deficit ratio to GDP, d , plus the beginning of the year debt ratio (b) times the nominal interest rates, i , minus inflation, π , and the growth of real GDP, y_y . Together with the outstanding debt, these four variables are the main determinants of sustainability. There are also stock/flow adjustments, but for simplicity, we ignore them. While being aware of its limits (see Corsetti 2018), we take a basic conventional view: if there is no tendency for the debt ratio to increase over time, we deem it ‘sustainable’.

Now, it is well understood that when the real interest rate, r , is above the real rate of GDP growth, $r > y_y$, the debt ratio will rise unless d is negative, i.e. there is a primary surplus that is large enough to offset the interest rate/growth dynamics (Case 1). On the other hand, when the real interest rate is below real GDP growth, there is some leeway for running a primary deficit (Case 2). If this is perceived to be persistent, then we end up with the scenario discussed by Blanchard in his paper. The following two diagrams, plotting the change in the debt-to-GDP ratio (on the y-axis) against the outstanding debt at each point in time (on the x-axis), help clarify the point. In the diagram, the primary deficit, d , is the intercept; the slope of the line capturing the growth of the debt-to-GDP ratio is given by the difference between the real

interest rate and the growth rate (hence it can be positive or negative).

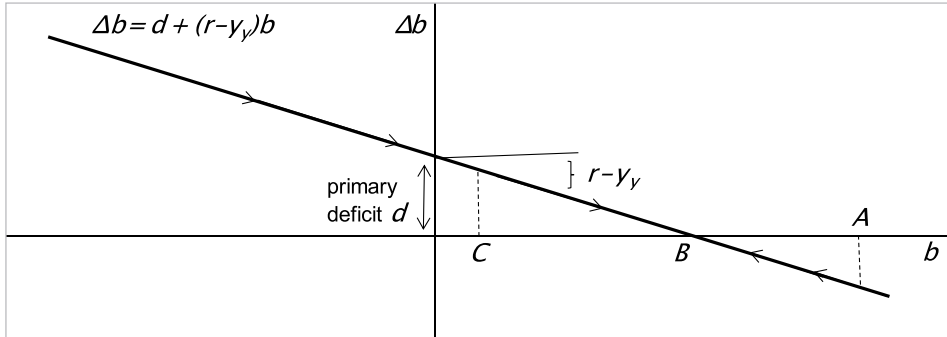
Figure 1 The government debt ratio, Case 1, $r > y_g$



The existing level of debt, b , is the starting point of the analysis (we can look at the starting position of the debt ratio as a point on the line in the graph, point C). As shown in Figure 1, drawn assuming a primary deficit, the debt-to-GDP ratio will not remain stationary when the real interest rate exceeds the growth rate. Instead, it will move northeast unless the starting position of the debt ratio is below point B in the graph. This is sometimes called the ‘snowball effect.’ If the primary deficit is reduced or it moves into a primary balance, the line in the graph shifts downward. At the same time, however, the underlying dynamics of the debt remains determined by the relationship between real interest rates and real GDP growth. Unless the primary surplus is very large, starting at point C the economy will remain on a path of ever-increasing debt ratio. Beginning at a point below B , whose position moves rightwards with a fall in d , the path would be ever-decreasing. In a scenario in which the government has little control over the sign of the

difference between market interest rates and real GDP growth, it would be up to fiscal policy to stabilise the ratio by reducing the primary deficit or moving into a surplus position.

Figure 2 The government debt ratio, Case 2, $r < y_y$



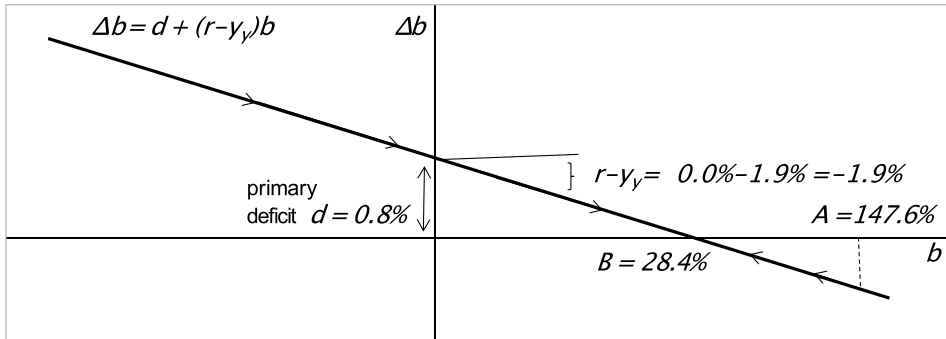
In Case 2, real GDP growth is expected to exceed the real interest rate persistently; thus, the slope of the Δb line is downward-sloping, and the ‘snowball effect’ turns from adverse to favourable. The world is upside down: in Figure 2, for a debt ratio below the outstanding debt threshold B , the overall debt dynamics is on a downward path, despite a primary deficit. Why? Because the higher real GDP growth rate relative to the interest rate times the existing debt level can offset the primary deficit. As the debt ratio declines and reaches the threshold point B and the primary deficit, the real interest rate and the real GDP growth remain stationary, the debt ratio becomes constant. Below that point, the debt ratio starts increasing as the impact of the primary deficit is bigger than $(r - y_y) b$ the bringing debt to gravitate around point B .

4. Italy's debt sustainability situation

Let's now move to Italy's data. In the April 2021 Economy and Financial Document (DEF, Italy's official planning document), the Italian government made projections up to 2024, including the effects of NG-EU. It projected a sizeable rebound in GDP in 2021 (6.0%), with growth remaining well above par for the whole projection horizon (4.7% in 2022, 2.8% in 2023 and 1.9% in 2024), in part courtesy of NG-EU that was expected to produce a sizeable demand stimulus for several years. Moreover, investments and structural reforms were expected to boost potential growth to 1.5% over the medium term (2024). At that time, the rise in inflation had just started, and the European Central Bank had not yet considered increasing rates. Indeed, the GDP deflator was expected to remain around 1.5% in 2021, rising marginally to 1.7% in 2024. As a result, the projections had a primary deficit of 6.0% in 2021; the nominal interest rate (the implicit government borrowing cost) equalled 2.2% in 2021. Deflated using a GDP deflator of 1.7%, this gave a real rate of just 0.5%. The debt ratio starting position was 155.6% in 2020 and was expected to decrease to 153.5% of GDP in 2021 and 146.1% in 2024.

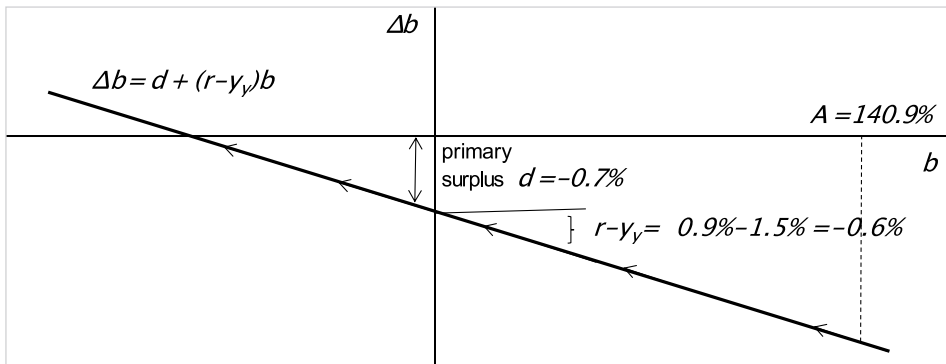
The projected dynamics of the debt ratio was benign, as the primary deficit was expected to decline to 0.8% in 2024, with the nominal interest rate (implicit cost of borrowing) at 1.7%. With the GDP deflator edging up to 1.7%, the real rate was at 0.0%, compared with a 1.9% projected real GDP growth in 2024. With these figures in mind, no wonder that the debt ratio was expected to decline steadily for a number of years (assuming real rates and growth rates remaining at these levels over the foreseeable horizon, the stationary point would correspond to a debt-to-GDP ratio of 28.4%). See Figure 3, which uses DEF 2021 data with projections for 2024.

Figure 3 The government debt ratio, DEF 2021, with figures for 2024



The same exercise using data from the 2022 NADEF (Figure 4) unveiled in September 2022 shows a different picture. The debt ratio in 2024 is projected at 140.9%, real GDP growth at 1.5% in 2025, the primary balance is expected in surplus at 0.7%, nominal interest rates at 2.8% and the GDP deflator at 1.9%, giving a real interest rate of 0.9%. Despite the primary balance turning positive, the debt dynamics is way less favourable due to a less pronounced snowball effect. Yet, at constant variables, the debt dynamics keeps (more slowly) improving until the debt disappears.

Figure 4 The government debt ratio, NADEF 2022, with figures for 2025



Is it reasonable to expect real interest rates to remain so low over the long run, especially considering the sizeable 2.5% credit spreads already recorded at the time of our writing? Suppose that inflation (GDP deflator) remains at the ECB's target of 2.0% over the long run, real GDP at 1.3% (a revised estimate of potential growth by the government assuming 0.6% potential before Covid, plus 0.5pp as the effect of extra investments, and 0.3pp due to reforms) and real interest rates at 1.0% plus 2.0% risk premium, so that the real borrowing costs would rise to 3.0%. In this scenario, $(r - y_y)b$ would become positive at 2.4%, implying that stabilising the debt ratio at its 2024 NADEF level of 140.9% would require at least a sustained primary surplus to the tune of 2.4% (Figure 5).

If financial markets were to change their expectations about long-term equilibrium real interest rates and Italy's potential growth, stabilising the debt ratio would become more challenging. A change in the long-term view would have immediate repercussions. The market reaction would be swift, with a call for a much higher risk premium on Italian government bonds, forcing some policy reaction in the form of tighter fiscal policy. Such a scenario would be detrimental to real GDP growth, surely over the near term, but in principle even permanently, depending on the quality of the adjustment.

What we are saying is that Italy is at risk of entering a 'bad equilibrium,' whereas a higher risk premium driving up the real rate would require destabilising tightening policies (to produce higher and higher primary surpluses) that would end up worsening near-term economic activity and the fiscal outlook of the country. A downturn with fiscal and financial stress, given the recent evidence of the strong correlation of private and public premia and borrowing costs, risks becoming a self-fulfilling prophecy, with a bad equilibrium easily turning into an unsustainable trend for the debt ratio (see, e.g., Corsetti et al. 2013).

Figure 5 The government debt ratio, with more realistic projections

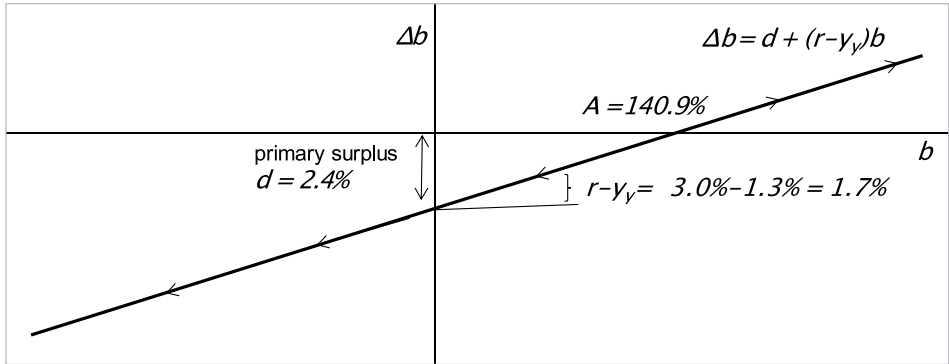
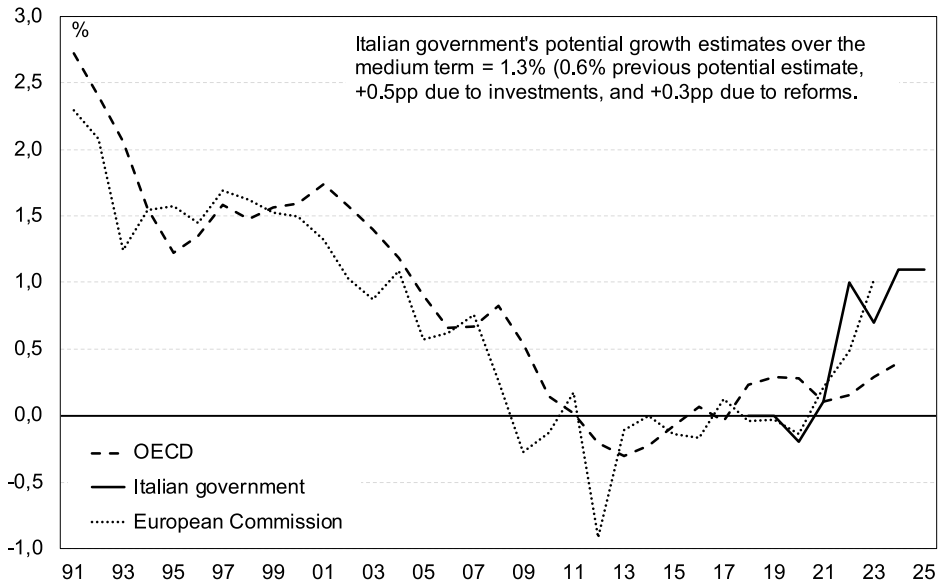


Figure 6 Estimates of potential growth for the Italian economy



5. Inflation from a terms-of-trade shock is not a boon for sustainability

A stable path forward is still possible. However, stability would crucially rest on achieving higher potential GDP growth by the end of the NG-EU programme (Figure 6) and maintaining yield spreads under control by credible budgetary policies in a cooperative euro-area wide policy setting.

The point of our stylised exercise should be clear at this point. Unfortunately, the prevailing environment and mood in 2020 and the beginning of 2021 were somewhat unique and are over. Just a couple of years later, the situation changed completely.

Inflation has surged. Official projections in the Update to the Economic and Financial Document (NADEF) point to a deflator of private consumption at 6.6% in 2022. It is then expected to decline to 4.5% in 2023 and 2.3% in 2024. The GDP deflator is projected at 3.0% in 2022 and 3.7% in 2023. The September edition of Consensus Forecasts shows consumer prices at 7.4% in 2022 and 4.3% in 2023.

It is misleading to believe that current higher inflation is a boon for debt dynamics. The opposite is true. The inflation hike linked to energy prices is driven by a massive terms-of-trade effect, i.e. much higher prices for imports, not fully reflected in higher export prices. It deteriorates the external position of the importer, de facto making the whole country poorer. At the same time, it impinges negatively on debt sustainability via lower GDP growth and, thus, a deteriorating primary balance. This last negative effect is partly mitigated by the time lag between the impact on fiscal revenues (quicker) and public spending (delayed). In addition, it affects the dynamics of $(r - y_y) b$. In our exercises above, we have proxied the inflation rate using the GDP deflator. Recall that a terms-of-trade shock makes the GDP deflator much weaker than consumer prices. Therefore, any given interest rate, i , and thus the nominal

interest bill, is far less benign relative to nominal GDP growth, negatively affecting debt dynamics. Intuitively, the country suffers from a negative impact on national income, which could be paid by the private sector (in terms of lower GDP and income growth), the government (more primary deficit), or a mix of the two.

In the current scenario, the monetary response to higher inflation will drive up the cost of borrowing, although with a lag due to the extended maturity and duration of outstanding debt. The ECB cannot tolerate higher inflation. Otherwise, it would not respect its inflation-fighting mandate. Moreover, allowing inflation expectations to drift higher than the ECB's target over the long term would push the inflation risk premium higher. This would again affect the debt dynamics negatively.

6. Conclusions

Due to a combination of lower real GDP growth and higher interest rates, a terms-of-trade shock magnifies debt sustainability risks for both public and private debt, thereby driving up credit risk premia. Historical evidence suggests that these premia tend to increase exponentially rather than linearly, exacerbating the rise in the cost of borrowing. It may be argued that, for a long time, the ECB deliberately compressed risk premia with quantitative easing. With the end of net asset purchases, risk premia are no longer anchored by the early QE policies pursued by the ECB. The potential consequences may be mitigated by the NGEU's money cheaply financing the most vulnerable countries and the ECB's Transmission Protection Instrument. Yet, the success of these policies is most likely predicated on the ability of member states to

enhance their policy credibility and adjust their primary balances.

The path ahead might be littered with unexpected complications. A crucial dimension along which the current situation marks a profound change relative to the recent past is financial vulnerability. While stricter regulation and supervision of the banking sector after the Global Financial Crisis has strengthened the sector's resilience to shocks, many years of rates close to zero or even negative weigh on the portfolio and strategies of financial intermediaries and institutional investors. Some of these strategies make sense in a regime of persistently low rates but create imbalances in the new regime. The sterling and bond crisis, produced by the announcement of the Mini Budget by the new British government led by Truss, suggests that news pointing to a sharp rise in policy interest rates, or potentially undermining the anti-inflationary credibility of the central bank, may send destabilising shock waves in financial markets via margin calls on derivative markets. This is yet another concern creating potentially sizeable contingent public liabilities.

Another way to state our conclusions is that a sustainable fiscal outlook will rest on two pre-conditions over the next few years. First, reforms and investments should be accelerated to benefit from early returns within a reasonably short time horizon. Resources should be devoted to increasing productive capacity, i.e., the stock of physical and human capital, and pursue efficiency in their utilisation. Raising potential growth sooner than previously projected will be crucial to sustainability. Second, a prudent fiscal policy and a smart macro prudential policy are of the essence to reduce, and possibly rule out, the risks of sudden shifts in financial market sentiment that would push Italy's debt into a 'bad equilibrium.'

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Rethinking Debt Sustainability?

This issue of *Economia Italiana* – editors **Lorenzo Codogno, LSE, and Pietro Reichlin, Luiss** - deals with public debt sustainability and fiscal rules. Many beliefs about the benefits of current fiscal and monetary policies could change because of the risks associated with the energy crisis, the war in Ukraine, the return of inflation and the green transition. The volume contains several contributions by leading experts on the following questions: *Is debt sustainability a cause of concern within the Euro Area? How should we consider revising the Stability and Growth Pact in the European Union? Are the energy transition and the pandemic risks good reasons to build up EU-level fiscal capacity?* In the introduction to this monograph, we will touch upon some of these issues and discuss why they are important.

Ripensare la sostenibilità del debito?

Questo numero di *Economia Italiana* – editor **Lorenzo Codogno, LSE, e Pietro Reichlin, Luiss** - tratta della sostenibilità del debito pubblico e delle regole fiscali. Molte convinzioni sui benefici delle attuali politiche fiscali e monetarie potrebbero cambiare a causa dei rischi associati alla crisi energetica, alla guerra in Ucraina, al ritorno dell'inflazione e alla transizione verde. Il volume contiene diversi contributi dei maggiori esperti sulle seguenti questioni: *La sostenibilità del debito è fonte di preoccupazione nell'area dell'euro? Come dovremmo considerare la revisione del Patto di stabilità e crescita nell'Unione europea? La transizione energetica e i rischi di pandemia sono buone ragioni per costruire una capacità fiscale a livello europeo?* Nell'introduzione di questa monografia, gli editor trattano alcuni di questi temi e spiegano perché sono importanti.

Essays by/Saggi di: Lorenzo Codogno, and Pietro Reichlin; Carmine Di Noia; Ludger Schuknecht; William R. Cline; Lorenzo Codogno, and Giancarlo Corsetti; Martin Larch; Cecilia Gabriellini, Gianluigi Nocella, and Flavio Padrini; Marzia Romanelli, Pietro Tommasino, and Emilio Vadalà; Angelo Baglioni, and Massimo Bordignon; Paul Van den Noord.

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