At over 130% of GDP, Italy’s public debt stock is larger than anywhere else in the euro area except Greece. At the same time, economic growth has lagged behind the average of the monetary union for years. Against this background we will examine Italy’s public debt sustainability and simulate the impacts of various shocks on its debt level.

Using realistic assumptions, Italy’s debt sustainability is currently not under immediate threat. In a plausible baseline scenario, the debt level will drop to below 120% of GDP by the year 2030. However, as the recovery in the euro area progresses, the risk of a cyclical downturn will grow. Italy has the lowest economic growth rate of the euro area’s large states. Furthermore, in the absence of an expansionary monetary policy, the high debt level comes with high interest payments which exacerbate the problem.

That is why ambitious debt reduction efforts remain necessary. In particular, policymakers should implement structural reforms to drive growth in the medium term. By contrast, the call for loosening the EU fiscal rules, which can be heard repeatedly in Italian politics, could turn out to be dangerous, specifically when investors lose faith in moderate fiscal policy and push up the funding costs of the Italian state.

**Figure 1: Large debt stock in Italy ...**

Gross public debt, in per cent of GDP

**Figure 2: ... but recently a relatively moderate increase**

Gross public debt, 1995=100

Source: Eurostat, own calculations

---

**Large debt stock puts Italy in the spotlight**

Ever since the debt crisis, a focus has been put on the debt sustainability of the euro area member states. The mean debt stock in the euro area rose by nearly 30 percentage points overall between 2007 and its peak in 2014 (Figure 1). Since then, the debt-to-GDP ratio has decreased moderately. Italy’s public debt of 132% of GDP is the second highest after Greece and more than 40 percentage points higher than the average of the monetary union. Even Spain, an economy much more heavily affected by the financial crisis because of its real estate bubble, is carrying a noticeably lower debt burden, although it has recently become heavier. Moreover, Italy has not yet reached a turning point. Its debt level is expected to have risen slightly last year as well.

Yet the increase in Italy’s debt over the past 20 years was actually below average (Figure 2). Besides Spain, even Germany has had to accept a stronger increase in its debt-to-GDP ratio since 1995. The causes for Italy’s large debt stock lie in the 1980s. Up to the year 1994, gross debt rose by more than 60 percentage points – twice as much as after 2007 during the time of the heaviest recession since World War II.

The decrease in the debt-to-GDP ratio since 1995 is partly attributable to Italy’s subsequent accession to the euro. A rigorous austerity programme designed to meet the accession criteria reduced the budget deficit and Italy
achieved surpluses in the primary balance – the fiscal balance excluding interest payments – of nearly 5% on average. That is a much better rate than the other present euro member countries achieved at the time, with the exception of Belgium. The accession then led to a substantial drop in Italy’s funding costs. The implicit interest rate, that is the interest rate which Italy had to pay on average on its total debt, fell from 10 to 4.5% up to the financial crisis. That was extremely helpful in reducing the large debt stock at least somewhat.

How important primary surpluses are for the Italian state is illustrated by what is known as the snowball effect. It describes how interest rates and growth affect gross debt. If a positive snowball effect, that is an interest-growth differential greater than zero by itself leads to higher debt, a primary balance surplus is needed to keep the debt-to-GDP ratio steady. As a result of the mix between high interest rates, low real growth and, recently, low inflation, the snowball effect in Italy has been consistently positive since 1995 (Figure 3). Accordingly, if the primary balance had been zero, public debt would have risen steadily, by more than 8% of GDP in 2009 alone, for example, and the debt reduction before the financial crisis was possible only thanks to the primary surpluses realised at the time.

Figure 3: Italy needs (substantial) primary surpluses
Snowball effect in Italy: Variation in gross public debt resulting from real growth, inflation and interest rates, in per cent of GDP

Source: AMECO, own rendition

Italy is susceptible to interest rate rises, waning growth momentum and unilateral fiscal policy
Italy’s growth has been moderate and lagging behind the other euro area economies for a long time, as well as in the current cycle. So considering the high legacy debt, is Italy’s debt sustainability under pressure?

That would be the case the moment the development of the debt-to-GDP ratio took an ‘explosive’ turn, that is if the debt stock grew at a fast pace and achieving a turnaround became more and more difficult. Such a scenario is unlikely for Italy. Nevertheless, several weak points remain.

First, Italy is more dependent than any other country on interest rate developments in the capital markets and the ECB’s monetary policy because of its high debt burden. Italy has saved many billions of euros in funding costs in the past years as a result of the historically low interest rates. The ECB has already initiated a cautious reversal and the interest rates are slowly rising again. With more than EUR 2.2 trillion in debt, Italy’s national budget responds particularly sensitively to interest rate variations.

Second, real growth has been very low for a long time and inflation fell recently. That makes Italy susceptible to the snowball effect. A new recession, in particular, harbours the risk of a tangible rise in the debt levels, particularly if Italy were to be hit by an asymmetrical shock that choked off growth without affecting the rest of the euro area and therefore remained without any countermeasures on the part of the ECB. As a result of the expansionary monetary policy and falling interest rates, the snowball effect has recently diminished in Italy. However, if interest rates now rise again without more dynamic nominal growth compensating for this, Italy’s debt sustainability will decline.

Third, the political direction which Italy will take after the parliamentary elections is still unclear. A significant expansion of the fiscal deficit appears to be possible. However, investors are taking a very close look at governments’ fiscal discipline – and possibly an even closer look at Italy given its already large debt stock. A responsible fiscal policy is therefore indispensable so as not to jeopardise the willingness of creditors to provide external financing and, hence, risk drastically rising bond yields.

Debt sustainability analysis based on four factors
Four indicators determine a country’s debt sustainability: The first three are the interest it owes on its accrued debt, its real growth and the inflation rate, which influence the denominator of the debt-to-GDP ratio. The fourth one is the primary balance which can be directly influenced in the short term and thus represents the most important control parameter for economic policy in this context.

In order to assess debt sustainability, we have simulated the development of Italy’s public debt ratio up to 2030 in various scenarios. A baseline scenario draws on plausible assumptions about interest rates, real growth, inflation and the primary balance. A positive scenario draws on significantly more optimistic forecasts by the Italian government. To conclude, we illustrate in several shock scenarios how susceptible the country’s debt sustainability is with respect to different economic shocks.

Underlying assumptions
The implicit interest which the government has to pay on its debt has continuously fallen since the ECB intervened in the debt crisis of 2012 (‘whatever it takes’) and as a result of falling inflation expectations. This development should continue for the time being, first of all because the ECB is taking an extremely cautious approach in normalising
monetary policy in the euro area and interest rates on new issues are therefore rising only slowly. Second, the average maturity of Italian bonds was extended in the low-interest rate environment. As a result, it will take longer before rising interest rates on newly issued bonds have a full effect on the average interest accrued on all bonds issued. A rising interest burden will not have to be expected until the first years of the next decade. In this scenario, because of the currently extraordinarily low interest level, we expect the yields for ten-year bonds to be around 4 % at the end of the forecast period, thus remaining lower than in the years before the debt crisis.

Owing to the good economic situation in the current year, Italy’s real growth could turn out significantly more dynamic than it has. But in the years ahead it is likely to again approach the potential growth rate of less than 1 % per annum and remain in this range until the forecast horizon (see Table 1 at the end of the text for an overview of the assumptions in all scenarios). In the baseline scenario inflation will take several years to return to its target level of just under 2 %. The forecast for the primary balance is fraught with higher uncertainty, not least because of the parliamentary elections. In the baseline scenario we expect the balance to move in a similar range as it has since the financial crisis, between 1.5 and 2 % of GDP.

Debt will fall to below 120 % in a good ten years
In this baseline scenario, 2018 is the first year with a significant reduction in the debt ratio since 2007. The debt-to-GDP ratio will drop just under 130 % before the end of this year (Figure 4). By 2030 a further reduction to 118 % of GDP will follow. Thus, slightly less than half the increase in the debt level since the financial crisis will be corrected again. The debt reduction will take a bit longer than before the financial crisis. The pace will slow particularly towards the end of the forecast period. The main reasons for this are that growth rates will normalise on a lower level after good initial increases and interest rates will rise at the same time. What is striking is that, despite a decline in the debt-to-GDP ratio, the absolute debt level will rise continuously – from about EUR 2.2 trillion to over EUR 2.8 trillion.

The good economic environment will benefit the rapid debt reduction in the near future. Our estimates indicate a negative snowball effect for the years 2018 to 2020. Thus, with a primary balance of zero the debt level would decrease even without political intervention. Above-average growth in times of historically low interest rates pays off here. In order to merely stabilise the debt ratio at 132 % of GDP by 2030, a primary balance of 0.9 % per annum on average would be sufficient – with all other baseline scenario assumptions remaining unchanged. Higher surpluses would reduce the debt level.

Assuming more optimistic conditions and, most of all, significantly higher primary surpluses – an assumption on which the stability programme of the present Italian government is based –, the debt ratio will drop to 102 % of GDP by 2030. That would be a 50 % faster rate than the successful debt reduction before the financial crisis. By 2020, the government is planning to achieve a doubling of the primary surplus from today’s level to 3.3 % of GDP and, subsequently, continuous surpluses at the same level using measures that include stepping up efforts to combat tax evasion and cutting spending, particularly on payments for public servants. However, assumptions have always turned out to be too optimistic in the past. In recent years, the government’s initial forecast for the primary surplus in three years’ time was always roughly three times higher than the level ultimately achieved in the end (Figure 5). The forecasts had to be regularly corrected and the scheduled start of debt cuts was postponed accordingly time and again.

In its Article IV Consultation the IMF also highlighted how ambitious the target of a primary surplus in excess of 3 % over several years is. Reaching such a target is hampered not just by business cycles but by political cycles as well. The IMF demonstrated that the Italian government’s predictions on the revenues from privatisation were overly optimistic year after year as well. At times, the actual revenue achieved was only half or even less than the originally envisaged amounts.

No debt reduction in adverse scenarios
We have simulated various shock scenarios to test how sensitive debt reduction is to more adverse developments in the influencing parameters. These are based on scenarios which the IMF studied in the context of its Article IV Consultations. The assumptions regarding the mutual dependencies existing between the influencing factors are also based on the analyses of the IMF: So in the case of a negative growth shock, for example, it is not just real growth that falls but usually inflation as well – to a lesser degree – while the primary balance deteriorates because automatic stabilisers take effect and governments often counteract a cyclical slowdown with an expansionary fiscal policy.
In the scenario of an interest rate shock, we expect interest rates in Italy to rise by 150 basis points within two years. This would weigh on growth at the same time and lead to a slightly lower rate of inflation. Such a scenario could be triggered, for example, by a rating downgrade and increased scepticism towards Italy among investors, for instance after a fiscal policy realignment. Very little debt reduction would take place in this scenario. In 2030 the debt ratio would be just under five percentage points lower than today (Figure 6). In the case of a recession that reduces real growth by 1.5 percentage points on the baseline scenario in both 2019 and 2020 and produces the above consequences as a result of interdependencies, the results would be similar. In that scenario public debt would reach a new record level in 2020.

The third shock scenario simulates further capital requirements for finance institutions that cannot be met from private funds as capital markets descend into turmoil at the same time. In line with the IMF’s approach, we have applied a recapitalisation of banks by the government through a one-off decrease of the primary balance by 10 percentage points of GDP against the baseline scenario. At the same time, growth is negatively affected, inflation drops slightly and government funding costs rise temporarily. In this scenario, the debt level leaps to 144 % of GDP and then drops only marginally. In 2030 the debt level still remains at 140 %.

Stock-flow adjustment increases debt level even more
All of the discussed scenarios have the fact that they disregard stock-flow adjustments in common. These adjustments include, for example, costs that accrue in a recapitalisation of banks, revaluations of assets and...
stress scenario alone takes into account parts of such impacts via the primary balance. In all other calculations we liabilities, for instance as a result of exchange rate fluctuations, and proceeds from privatisations. The bank assume that stock-flow adjustments will be near zero in the long term.7

Italy’s debt is normally sustainable but its growth lags behind the remaining euro area countries

No immediate doubt is currently being raised about Italy’s debt sustainability. Nor do the shock scenarios lead the public debt ratio onto an explosive trajectory that would become increasingly difficult to reverse. This is not least the result of a mostly positive primary balance. Finland, Belgium and Luxembourg are the only countries that have achieved higher average primary surpluses since the founding of the euro area.

The main problem for Italy, however, besides its high existing debt on which it is paying high interest in absolute terms, is that its growth is too slow. Since the euro area was founded, Italy’s average annual real growth was 0.4%, just marginally above the lowest rate of 0.3% per annum for Greece and one percentage point below the mean value for the overall euro area. Italy’s low growth rate, in turn, can be attributed to several structural causes. The country has recorded near zero productivity growth for years and businesses are often very small, focus on the domestic market and invest too little in R&D.8 Major inefficiencies exist in administration, e.g. in the justice system, and capital intensity is too low, also because investment declined by as much as 30% after the financial crisis.9 This was recently exacerbated by problems in the banking sector, including as a result of poor investment decisions in the past and short survival rates of governments over a long period, which have led to frequent election campaigns and delays in economic policy.

Conclusion: speed up debt reduction by driving growth

At more than 130% of GDP, Italy’s public debt ratio is clearly too high. In a plausible baseline scenario, it will begin to cut its debt in 2018 after years of delays – but only at a slow rate as soon as average interest rates rise again. Besides, the longer the recovery in the euro area continues, the higher the risk of an economic slowdown. This may lead to a moderate growth shock – as shown in our scenario – which may lift the debt level by just a few percentage points. Depending on what may trigger the next slowdown, however, more intense reactions in the public debt ratio cannot be ruled out.

An accelerated debt reduction would hence provide more stability. The conditions for this to occur are good because the Italian economy is currently in good shape. Growth has picked up and interest rates are on historically low levels. The state is generating steady and even high primary surpluses like hardly another euro country. The main approach to swift, sustainable debt reduction is economic growth. It is still lagging behind other euro area countries in the current recovery phase as well. If Italy succeeds in increasing average growth through structural reforms, further improvements in the primary balance will also be easier to bring about.

Moreover, institutional reforms in the euro area could be helpful and lead to greater stability within the monetary union – for example through a mechanism in which states provide financial support to an economy in distress precisely before a genuine crisis breaks out and the European Stability Mechanism (ESM) has to kick in. Italy would not even have to use such an instrument. Its mere existence could contribute to limiting yield spreads and, thus, avoid an increase in funding costs for parts of the euro area even after normalisation of monetary policy. Italy would greatly benefit from this – and the entire monetary union indirectly as well – also because monetary policy would be needed less for economic stabilisation.

But if the political parties fail to embark on a growth-friendly reform course instead of relying primarily on the impetus of expansionary fiscal policy, Italy is likely to remain in the focus of debt sustainability analyses for some time to come.

### Table 1: Overview of influencing factors in the scenarios

<table>
<thead>
<tr>
<th></th>
<th>Baseline scenario</th>
<th>Positive scenario</th>
<th>Interest rate shock</th>
<th>Growth shock</th>
<th>Banking crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rates (new 10Y issues), per cent</td>
<td>3.0</td>
<td>3.9</td>
<td>3.3</td>
<td>N.A.</td>
<td>4.4</td>
</tr>
<tr>
<td>Real growth, per cent on previous year</td>
<td>1.4</td>
<td>0.8</td>
<td>1.4</td>
<td>0.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Inflation, per cent on previous year</td>
<td>1.3</td>
<td>1.8</td>
<td>1.9</td>
<td>2.0</td>
<td>1.2</td>
</tr>
<tr>
<td>Primary balance, per cent of GDP</td>
<td>1.6</td>
<td>2.0</td>
<td>2.6</td>
<td>3.3</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Sources: own estimate, IMF, Ministero dell’Economia e delle Finanze
1 Cf. Ehmer, P. 2017, Monetary policy has reduced fiscal pressure in the euro area – but the interest rate reversal is coming, Focus on Economics No. 176, KfW Research.

2 The key measure for inflation here is the GDP deflator and not the consumer price index which is often used in other contexts. This is because the calculation of nominal growth is based on information on the development of the prices of the goods and services produced in an economy and not on the development of the prices of the goods purchased by a typical consumer.

3 The Italian government forecasts the development of debt only up to and including 2028, cf. Ministero dell’Economia e delle Finanze 2017, Update of the Economic and Financial Document 2017, 23 September 2017. The results for the years 2029 and 2030 are based on a linear continuation of the trend up to 2028.


6 Cf. ibid.

7 Past stock-flow adjustments usually contributed to a debt increase in Italy, especially as a result of costs in connection with the banking sector (Figure 7), cf. Sidorov, P. 2017, Analysing Italian Public Debt, Deutsche Bank Research, Focus Europe Special, 2 October 2017. Against that background, our analysis must be regarded as optimistic. After the financial crisis – a period in which the problems of banks were a particular focus and the associated costs were disproportionately high – stock-flow adjustments accounted for roughly 20% of the growth of debt in Italy. If we were to base the calculation on the development of debt since 1995 and continue the trend on a linear basis, Italy’s debt by 2030 would exceed our scenarios by a good EUR 100 billion yet again, or by 4% of GDP.
