The future of Europe

The Eurozone and the next recession
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“Whatever it takes.”

These words of Mario Draghi’s marked the inflection point in the last recession and paved the way to the present economic recovery. But as the euro celebrates its 20th birthday, the world and investors are beset again by recessionary fears, with risks mounting and likely to continue doing so in the coming years. The growing pains experienced by the euro in its first 20 years and the cloud of uncertainty now hanging over the monetary union raise the question of how and whether it will withstand the next recession. Global protectionism, trade disputes and Brexit woes for example all weigh on investor minds. Therefore, we have decided to convert the long-term study on the future of Europe we released in 2016 into a publication series, and to focus on Eurozone recession risks in the current edition.

A new recession would likely lend fertile ground to populists, who have already made good use of the euro debt and immigration crises. Investors are well advised to watch this space, as both the Greek (2015) and Italian standoffs (2018) led to downturns. As the French President Emmanuel Macron remarked, “The world is fracturing, new disorders are appearing and Europe is tipping almost everywhere toward extremes and again giving way to nationalism.”

What’s more, a recession, particularly a severe one, would likely lead to significant structural changes. Deeply negative Bund yields, Italy being downgraded to sub-investment grade, fundamental shifts in the international corporate tax architecture and the next generation of monetary policy being unleashed are a few examples of what may result from such a slump. Investors bracing for Draghi’s “whatever it takes” need to be prepared, because neither he nor other key European policy makers will be in the lead anymore to steer the Eurozone through crisis, even if we would expect integration to accelerate. So the future of the euro will also depend on a new generation of leaders soon to be at the helm of major European institutions and, potentially, in Germany and France too after the new elections.

In any event, support for the euro is at all-time highs now, even if a recession could dampen it to dangerously low levels in some countries. It is therefore key that governments pursue their plans to complete the banking and capital markets union with a sense of urgency, while building up fiscal space. In this paper we look not only at the business cycle and available policy space but also stress test the Eurozone with illustrative recession scenarios. This should lay a good foundation for investors to discover where the weak links and investment opportunities are.
Imbalances within the Eurozone have lessened since the euro debt crisis. Outsized current account and fiscal deficits have largely disappeared mainly thanks to the economic recovery. Widespread real estate bubbles at the national level have also vanished, even if hotspots warrant monitoring.

But the debt overhang remains, with wide divergences in credit ratings and debt loads. This should continue to limit Germany’s appetite for more fiscal integration. With a trend growth rate of just 1%, the Eurozone economy is particularly vulnerable to shocks and slower global foreign demand. Given its more advanced stage in the business cycle, the US faces rising recession risks in the coming years. Trade disputes and Brexit woes fuel further investor angst. When a more accommodative Eurozone monetary policy stance is also factored in, we see greater risk of a global recession than an internally driven slump.

To isolate weak links and investment opportunities, we set out three scenarios as a basis for this publication – an economic expansion, a moderate global recession and a severe global slump.
Cyclical position

A recession would most likely come from outside

The current business cycle has lasted exceptionally long, even if it has been the weakest since the Second World War. The distinctive feature of the Eurozone economy in the current global business cycle is that it has suffered one more recession than most other regions or countries, for instance the US or China. Accordingly, its current recovery effectively dates from 2013 rather than 2009 (see Fig. 1). So the slack in its economy hasn’t been as fully absorbed as has, for example, slack in the US, where headline inflation has consistently exceeded the Eurozone’s since the euro debt crisis.

Looking at our Eurozone heat map, we can see a steady lessening of slack since the last recession, but there is no evidence yet of the economy overheating (see Fig. 2). The output gap and service prices are cases in point. What’s more, the European Central Bank (ECB) has lagged the Federal Reserve in exiting its ultra-loose monetary policy.

So while the potential for domestic shocks (such as the Italian crisis spreading) cannot be excluded, we think any recession that might befall the Eurozone in the next few years is likelier to come from outside rather than from inside it.

Fig. 1
Economic expansion from prior peak

Underperformance mainly due to 2011–12 recession (Index 4Q 2007=100)

Source: Haver Analytics, UBS

Fig. 2

Eurozone heat map
Economy moving toward late cycle

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* Cyclical balance data from 2007 to 2009 are an average of the data for Germany, France, Italy and Spain

Source: Haver Analytics, UBS
Global recession risks building
With the global cycle running since 2009 and output gaps having narrowed, global central banks have reduced their efforts to support the economy. Some, like the Fed, have even started to reverse them. The liquidity creation stemming from asset purchases has dwindled in the process (see Fig. 3), contributing to the recent yield curve inversion.

The latter is often regarded by investors and the Fed alike as an indicator of risks of an impending recession. Given the importance of US rates to global ones, in particular those of emerging markets, they also necessarily matter for the Eurozone given it is a fairly open economy.

According to a Bloomberg survey (25 February 2019), a majority of economists expect a US recession by the end of 2021. But the yield curve has sometimes given false signals, and today’s interest rate environment isn’t comparable to the pre-quantitative easing (QE) era. Nonetheless, it is fair to say that the more the Fed tightens beyond neutral, the more such recession risks will tend to build. Fig. 4 shows these risks trending up over the next one, two and three years. A hard Brexit would also increase recession risks. Although we estimate its GDP impact at a quarter percent on Eurozone growth in the first year, uncertainty is high given the unknown impact on sentiment.

Capturing the Eurozone’s future in scenarios
Even if the US yield curve spread has to be taken with a grain of salt, any warning signals warrant preparation, as we might hope for the best but prefer to prepare for the worst. To this effect and with recession risks likely to rise in the next few years, the question arises how the Eurozone will fare in this environment. To address it, we have devised three scenarios for the years 2020–25 (see Fig. 5).
In our first scenario (expansion scenario), central banks ultimately manage to bring about a soft landing for the economy overall by normalizing monetary policy without causing a downturn. In our second scenario (moderate recession scenario), we look at the implications of a globally driven economic contraction amounting to approximately 2% (see appendix for further details). Its impact is assumed to be relatively shallow as central banks and fiscal authorities mitigate it in a timely manner, and as relatively few excesses have built up in the current Eurozone business cycle (see analysis on imbalances).

In our last scenario (severe recession scenario), we go one step further and again assume a globally driven contraction of the Eurozone economy, but this time one similar in magnitude to that of the global financial crisis (see appendix for further details). Severe recessions historically stem from different factors such as for example real estate busts, financial crises or commodity shocks. In this case a major Eurozone slump would likely have to include a harsh US downturn and a hard landing in China.

Both recession scenarios are timed in the early part of the coming decade for illustrative purposes. Both involve headwinds from the currency as the EURUSD interest rate differential unwinds. An overview of the assumptions for the ECB, fiscal policy as well as the banks is contained in the appendix, while subsequent chapters will investigate what policy actions are available to prevent/combat a recession and the impact that one could have.

**Conclusion**

The global financial crisis was the worst economic downturn the West has endured since World War II, yet the subsequent economic recovery has also been the weakest. Output gaps have closed in the interim and central banks are no longer as accommodative as they used to be. But growth remains subdued by historical standards, resulting in a smaller cushion that may be less able to soften the effects of the next recession – in particular in the Eurozone.

What’s more, very low global interest rates also imply constraints on central bank policy. Accordingly, in this paper, we’ll focus on the two recession scenarios. We have cast both as externally driven, though a domestically driven downturn (triggered, for example, by an Italian crisis spreading) cannot be written off. The recession taking place later than in the early 2020s would help limit the damage it causes, as the scope for a more forceful policy response by the ECB and other fiscal authorities would broaden. Accordingly, the conclusions are sensitive to the timing and are for illustrative purposes only.
Imbalances

Imbalances improve with the recovery
Overall Eurozone economic vulnerability has declined markedly in recent years. The imbalances that had been building in current accounts, government deficits and labor markets have largely leveled off thanks to the economic recovery, reforms and the fall of fiscal deficits to 3% and less. Barring negative surprises in France and Italy, no country will remain under the corrective arm of the Excessive Deficit Procedure this year.

Most countries also boast sustainable current account surpluses now, with only Cyprus carrying a deficit above 1% of GDP. So the UBS European synthetic imbalance indicator (a gauge for key imbalances relevant to Eurozone cohesion) has improved notably both in terms of flows and stock accumulation (see Fig. 6). This suggests that the Eurozone break-up risks have declined with the economic recovery.

But debt overhang remains
Nevertheless, debt accumulated from previous excesses is being reduced at a snail’s pace. In the wake of a decade of large current account deficits, total external liabilities (i.e. net international investment position (NIIP) as a percentage of GDP) remain huge in Spain, Portugal, Ireland and Greece (see Fig. 7). The NIIP measures a country’s foreign financial position. When coupled with the possibility of a currency exit, a high negative NIIP indicates that debtor countries remain vulnerable to foreign investors losing confidence in their fiscal sustainability, as these countries depend on foreign investors.

Greece still stands out in terms of the synthetic imbalance indicator. Its very high debt and above-average excess unemployment imply that it will require support for the foreseeable future. Its situation contrasts with the creditor positions of Germany and the Netherlands, while France and Italy lie in the middle (see Fig. 6). The imbalances are also evident in TARGET2. The German Bundesbank holds a claim of roughly 1trn euros, with Banca d’Italia and Banco de España as the main debtors.

Still-diverging trends in total debt
Fig. 8 suggests that the age of Eurozone leveraging ended with the global financial crisis. Households have been deleveraging ever since and

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1 European platform for processing large-value payments. Used by both central banks and commercial banks to process payments in euro in real time.
governments have started to as well in recent years (though their debt remains high). In the periphery, the deleveraging process is particularly acute in the private sector (down more than 60 percentage points of GDP in the case of Spain and Portugal).

To a lesser extent, the same dynamics are at work in Italy, where the robust balance sheets of households and corporates are an often-dismissed strength that partly offsets weak public finances. Meanwhile, the gross leverage of the private sector continues to rise in France and Belgium.

**Debt divergence as a hurdle to further Eurozone integration**

Despite the debt-reduction progress made in the peripheral countries, a major imbalance arises from Germany’s and the Netherlands’ outsized public sector and external surpluses. German public debt is expected to reach a 25-year low at 50%–55% of GDP in 2020, with foreign assets, i.e. NIIP, soon to surpass +65% of GDP. With government debt falling at a much slower pace in the periphery, the gap between Germany and the main debtor countries continues to grow. It limits the German appetite for further fiscal integration due to fears that the country will have to pay for others’ debt, which in turn could boost populist forces domestically. This situation is being exacerbated by wide credit rating differences among member states.

Accordingly, we expect Germany, in the event of a crisis, to adopt a delicate balancing act of pressuring debtors to ensure repayment while helping them avoid defaults that would have devastating effects on German holdings of foreign assets (almost eight trillion euros). For the time being, the need to shore up public finances, reduce banks’ non-performing loans (NPLs) and cut the feedback loop between solvencies of both sectors is expected to take precedence over the pursuit of greater banking and fiscal unity.

**Scant signs of widespread real estate bubbles in the Eurozone**

Globally, real home prices have surpassed the prior peak in 2007–08. They are close to more recent all-time historical highs and presenting corresponding risks to global financial stability. However, there are no signs of a widespread real estate bubble in the Eurozone (see Fig. 9), and construction activity appears sustainable overall. The wildly overheated Spanish and Irish markets of the mid-2000s suffered deep corrections and are now close to their

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**Fig. 7**

Net international investment position

Divergences bolstering conflicts of interests in Eurozone integration decisions

In % of GDP

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**Fig. 8**

Eurozone domestic debt-to-GDP breakdown

Governments in deleveraging mode since several years, in % of GDP (SWDA)

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**Fig. 9**

Real House Price Index

Eurozone unlikely to suffer from countrywide bubbles, despite hotspot (Index 1955=100)
Emerging markets

Why emerging markets matter for the Eurozone

The Eurozone has close trade and financial links not only to the US but to emerging markets. Because its trend growth rate is a low 1%, it is highly vulnerable to foreign demand. Accordingly, a recession in the emerging markets would likely ensnare and drag down the Eurozone too. In light of the close links between the two regions, it is natural to ask where the emerging markets stand in their business cycle and what we can expect from them in the next few years.

Fig. 10 shows that emerging market (EM) economic activity has been weakening for several quarters. Asian growth has trended steadily lower while Latin America and Central and Eastern Europe (CEEMEA) have declined steeply. This time Chinese stimulus measures are expected to arrive only in homeopathic doses and, in contrast to 2015, are unlikely to support other EM countries in a meaningful way. And, lastly, we expect the US Federal Reserve to complete its exit from loose monetary policy, which might lead to tighter EM financial conditions, increasing the risks for the Eurozone economy in the process too.

Conclusion

Key vulnerabilities in the Eurozone are no longer a function of worryingly high current account deficits, crippling debt accumulation or countrywide real estate market bubbles (even if hotspots bear risks). Instead, they stem from the stock of domestic and external debt and a divergence among debtor and creditor countries (including in terms of credit ratings). Despite the turnaround in trade balances and forceful private sector deleveraging in peripheral countries, huge negative foreign liabilities expose them to swings in foreign investors’ risk appetite.

Greece’s debt overhang suggests that it may require continued support to remain in the Eurozone. On the opposite side, the sound public finances and enormous trade surpluses of the Germans and Dutch continue to bolster their creditor positions and fortify their conservative stance in the area of progressing toward banking and fiscal unions.
**Eurozone economy more sensitive to emerging markets than US or Japan**

About 50% of all Eurozone exports end up in emerging and developing countries as part of final demand there (on a value-added basis), with Eastern Europe accounting for almost 10 percentage points of this figure. China’s share alone is almost another 10 percentage points, with the next largest trade partners consisting of India, Turkey, Poland, Russia, Brazil and Saudi Arabia, each representing 2–3 percentage points. The Eurozone exports much more to emerging markets as a percentage of its GDP than do the US and Japan. So it is more sensitive to the economic health of them than their developed market counterparts (see Fig. 11). Within the Eurozone, dependencies vary to a great degree. Germany, Italy and Benelux are among the member states most reliant on this trade.

**China’s future key for the Eurozone**

Weaker EM growth poses downside risks to growth in Europe. China will be decisive in this regard. The authorities there need to balance several factors to ensure the country stays on a stable growth trajectory: the desire to stimulate the economy, pressure on the yuan, inflation inching up and the need to deleverage. They have earned the benefit of the doubt about their ability to do so based on their successful track record of managing their country’s stellar growth story over the last 20 years.

But the risk of policy errors has increased, given China’s highly leveraged economy, its tensions with the US and tighter global liquidity conditions. Smaller markets such as Turkey or Russia could also play a role in stalling Europe, though any setback in either would have to spread across other emerging countries to have a lasting impact on European growth, which is not our base case for now.

**Financial vulnerability to emerging markets: Eurozone banks face most by far**

Lastly, we highlight financial exposure as a further key transmission channel of any potential shocks originating in the emerging world. For example, the recent crisis in Turkey caused the lira to tumble to an all-time low and had repercussions for affected Eurozone banks (which hold EUR 107bn claims on Turkey) in Italy, Spain and France. Although markets recovered shortly afterward, this event served as an important reminder that most financial institutions are active in developing countries, which can be not only a great source of revenue but one of imported volatility as well.

According to the Bank for International Settlements, Eurozone banks hold total claims worth EUR 1.5trn against emerging and developing markets (see Fig. 12). This figure is by far the most worldwide and compares to EUR 2.5trn Eurozone bank capital and reserves (according to the ECB). The US’s financial exposure amounts to just half a trillion because it is a large capital importer, as is reflected in its current account deficit and deeply negative net international investment position. Consequently, an EM shock would hit Eurozone banks particularly hard, i.e. harder than their US rivals.
Emerging markets

Financial exposures concentrated in Latin America and Central/Eastern Europe

Among Eurozone countries, Spain clearly stands out with an overall exposure to emerging and developing markets of half a trillion euros, roughly equal (after currency translation) to the US and Japanese totals. Its holdings in Latin America alone are worth EUR 384bn, meaning that most of the Eurozone’s EUR 478bn exposure to the region comes through Spain and its ties to Mexico (EUR 139bn) and Brazil (EUR 129bn). The Latin American involvement of Spanish banks equates to over 30% of Spanish GDP and leaves the country and the Eurozone as a whole susceptible to an unanticipated crisis erupting in these often volatile nations.

To put this in perspective, French banks (with France’s economy nearly twice the size of Spain’s) hold EUR 285bn in the debt (public and private) of neighbor Italy, another potential source of recessionary contagion. Similarly, most of the offshore banking activity of Italian, Austrian and French banks occurs in Central and Eastern Europe, though this exposure is far less concentrated and represents a much smaller share of GDP than in the Spain-Latin America case. Of a magnitude nearly equal to it is the exposure of Central/Eastern Europe to emerging markets, which totals EUR 488bn. It accounts for roughly one-third of Eurozone bank EM exposure.

Conclusion

Softer business cycle dynamics and a trend toward structurally lower growth in China will continue to affect the growth outlook for the Eurozone. The good news is that we expect Chinese policy makers to successfully manage the gradual transition toward lower growth. However, with growth risks skewed to the downside, the situation warrants monitoring, as a staggering 50% of the Eurozone exports are destined for final demand in those markets and the Eurozone’s own trend growth rate amounts to a mere single percent. What’s more, the Eurozone displays far more sensitivity to EM growth than the US or Japan. This increases the recession risk for the Eurozone.

In addition, Eurozone banks have by far the greatest financial exposure to emerging and developing markets globally, making them particularly vulnerable to an economic downturn there. The large exposure of Spanish banks to Mexico and Brazil could be one fault line, the exposure of French, Austrian and Italian banks to Central and Eastern Europe another. In sum, a shock in emerging and developing markets would almost certainly drag down the Eurozone economy as well.
Chapter 2

Policy space

Eurozone integration picked up speed in the 2011–12 debt crisis. But it has slowed amid the economic recovery, and a genuine fiscal union is nowhere in sight. A recession is probably needed to restore it to its previous pace. Some large, debt-laden nations like Italy are barely rated investment grade, and current safety nets are too small to protect them. Germany is also reluctant to conduct fiscal stimulus on a large scale, so we think the European Central Bank (ECB), rather than governments, is likely to have to act as the key provider of stimulus in the case of a recession.

This raises the question of how the future leaders of the ECB might respond. Interest rates are already near the zero lower bound, and it appears unlikely that money market rates and Bund yields could fall enough in a severe recession to create the required economic stimulus if the ECB were limited to using its current toolset.

So the next generation of monetary policy (monetary policy 3 (MP3)) will probably have to include new levers, such as equity purchases. In a severe recession, even more drastic measures, like helicopter money and deeply negative policy rates and Bund yields, would likely at least have to be discussed. Rates may be low today, but investors should not take the zero lower bound for granted.
Institutional framework

The vision: A more resilient institutional framework
The Five Presidents Report on Completing Europe’s Economic and Monetary Union published in 2015 set out a roadmap to make the Eurozone more resilient in the face of economic shocks. The financial crises in the first part of the decade led to an evolutionary push to achieve greater integration (see Fig. 13). These include for example the European Stability Mechanism and the Single Supervisory Mechanism. However, the economic recovery has clearly slowed efforts since. To this effect, debt levels in some key member states remain too high to withstand significantly larger budget deficits. A lack of labor and product market reforms in the intervening years has left some countries unable to adapt to change. Overall, the appropriate infrastructure – in particular a complete banking and fiscal union – is not yet in place to prevent another loss of confidence in some sovereign issuers and consequently large swathes of the financial sector.

Banking union: Work in progress
An immediate priority identified by the EU is to complete the banking union, since 80% of the Eurozone’s funding goes through banks (compared to 20% in the US) and the government-bank nexus remains unbroken. But funds planned for the Single Resolution Fund and its backstop at the European Stability Mechanism (ESM) will only total EUR 120bn by 2024 (against over EUR 30trn of Eurozone bank assets). In addition, the European Deposit Insurance Scheme (EDIS) is still a notable omission. Nonetheless, the Single Supervisory Mechanism, Single Resolution Mechanism and Single Resolution Fund are all welcome developments (see Fig. 13) that investors should not overlook. Even if the banking backstops are small, the institutions and processes have been established and can be expanded later. So the financial sector is better placed to withstand the next typical cyclical downturn.

Fiscal union: More fiscal space vs. more sovereignty
The far larger task involves enhancing economic resilience to move toward a fiscal union, especially as monetary policy is more restricted. A true fiscal union would increase fiscal flexibility and the Eurozone’s shock-absorption capacity as it would lead to a higher average credit rating. A fiscal union, however, seems politically untenable for the time being, as it requires nations to share much more sovereignty. This needn’t and shouldn’t prevent piecemeal moves in a more integrated direction, though. The foreseen establishment of a Eurozone budget as part of the EU budget in the early 2020s is a case in point. Like the banking backstops, it is likely to be small at the outset. Currently, the EU budget amounts to just 1% of member country Gross National Income. Nonetheless, the future Eurozone budget can (like the banking backstops) be regarded as an embryo that will likely grow on the back of future crises.

Large changeover of European leaders imminent
By the end of this year, four of the EU’s five presidents – of the European Central Bank (ECB), the European Commission, the European Council and the European Parliament – will be appointed. The ones likely to receive the most attention will be the new heads of the ECB and the European Commission, as Mario Draghi and Jean-Claude Juncker are stepping down. Worth remembering is that it will take at least one to two years until

Fig. 13
Key institutional reforms
The foundations are in place for a more resilient Eurozone

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>The European Financial Stability Facility (EFSF) established as a crisis resolution mechanism by Eurozone member states</td>
</tr>
<tr>
<td>2010</td>
<td>The European Financial Stabilisation Mechanism (EFSM) established to assist countries under financial difficulties</td>
</tr>
<tr>
<td>2011</td>
<td>The European Bank Authority (EBA) established as part of the ESFS and replaced the Committee of European Banking Supervisors</td>
</tr>
<tr>
<td>2012</td>
<td>The Single Supervisory Mechanism established giving the European Central Bank (ECB) supervisory responsibility over systemically important banks</td>
</tr>
<tr>
<td>2012</td>
<td>The European Stability Mechanism (ESM) established as a successor to the EFSF to provide a permanent backstop to euro area countries that cannot access the debt markets</td>
</tr>
<tr>
<td>2014</td>
<td>The Single Resolution Mechanism established to facilitate the orderly restructuring of banks, including financing of resolutions through the Single Resolution Fund (operational by 2024)</td>
</tr>
<tr>
<td>2018</td>
<td>The Meseberg Declaration between France and Germany establishes the groundwork for a common euro area budget and eventual foundation of a “European Monetary Fund”</td>
</tr>
</tbody>
</table>

Source: European Institutions, Morgan Stanley, UBS
Institutional framework

Europe’s past experience with an institutional crisis teaches us that the new presidents have the same grip on their institutions and the interplay among them and the various heads of state to work as smoothly as it has under their predecessors. So if a recession hits the Eurozone in the early 2020s, policy decisions from the past cannot simply be extrapolated.

In Fig. 14 we have summarized the reforms that could be enacted in the coming five years from today’s perspective. To complicate matters, elections in France and Germany by 2021–22 could also replace today’s most powerful Eurozone leaders. In any event, these elections will likely temporarily hinder integration, which can be more difficult to sell in the midst of an electoral campaign. Last but not least, US presidential elections in November 2020 will have important implications on the geopolitical side for Europe.

Conclusion

As the 20th anniversary of the single currency passes, the crisis that threatened its very existence is still fresh in everyone’s minds. In historical terms, however, the progress made has been extraordinarily fast. To put the Eurozone’s integration into perspective, it took the Swiss Confederation 110 years and the US 121 years to put federal taxation into law.

The euro won’t have that much time. The institutional rework of the Eurozone this decade was designed to tackle a crisis like the last one, when small economies were in focus. But the further build-up of government debt and the respective credit rating deterioration in recent years may draw larger countries in focus in the next recession (as illustrated in the final chapters). Accordingly, we expect policymakers to embark on enhancing the institutional framework to bring about significantly greater integration once a recession hits. Investors are well advised to closely follow the imminent changeover among European leaders, as they will likely be the ones to re-write the rules that govern the euro.

European integration: The Swiss and US experiences

Like the EU, the US and the Swiss Confederation began existence with a monetary but no fiscal union. The Swiss Confederation, for example, had only a few revenue sources initially (mainly tariffs). They were expanded as the central government was entrusted with more functions. The driving forces were the two world wars. In the case of the Eurozone we expect future currency crises, among other events, to fuel integration. The US underwent a similar evolution. The federal government started with tariffs (and excise duties) and only in the early 20th century legalized federal income taxes.

In historical terms, Eurozone integration has therefore moved briskly, which underscores the political will to hold the euro together. But until more is done on the fiscal front, the ESM will have to serve as a stabilization mechanism for the currency union (for more on this topic see the following chapter on fiscal space).

<table>
<thead>
<tr>
<th>Reform</th>
<th>Actions</th>
<th>Likelihood</th>
<th>Treaty change required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock absorption capacity</td>
<td>A budget to dampen asymmetric economic shocks. Measures may include a European unemployment insurance fund, public investment programmes, and reform based incentives</td>
<td>Medium</td>
<td>No</td>
</tr>
<tr>
<td>Capital Markets Union</td>
<td>Measures to promote alternative sources of funding for corporates and broader risk sharing across the Eurozone. Leave the euro area less dependent on bank funding</td>
<td>Medium-High</td>
<td>No</td>
</tr>
<tr>
<td>Banking Union</td>
<td>European Deposit Insurance Scheme (EDIS), most likely after balance sheet clean-up. This could also alleviate the imbalances in the Target 2 payments system</td>
<td>Low-Medium</td>
<td>No</td>
</tr>
<tr>
<td>Fiscal Union</td>
<td>A common fiscal policy that would include risk sharing via joint bond issuance, a large and comprehensive euro area budget and a Eurozone Finance Minister</td>
<td>Low</td>
<td>Likely</td>
</tr>
<tr>
<td>European Monetary Fund</td>
<td>ESM evolves into the European Monetary Fund as per the Meseberg Declaration. More powers and accountability handed to the Eurogroup President</td>
<td>Medium</td>
<td>Unlikely</td>
</tr>
<tr>
<td>Change the ECB mandate</td>
<td>Evolution of QE programme to break the capital key, more scope to directly support individual sovereign and credit markets.</td>
<td>Medium</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: European Institutions, Morgan Stanley, UBS
Fiscal space

Credit ratings constraining fiscal space in the periphery

The economic recovery of recent years has markedly contained budgetary imbalances. Yet fiscal sustainability hasn’t been achieved given the extent of the debt loads. Governments partly relaxed after the euro debt crisis and most of the fiscal improvements made since then have stemmed from the economic recovery rather than structural efforts (see Fig. 15).

Among the large member states, France, Italy and Spain exhibit bloated public debt and sizable cyclically adjusted deficits (see Fig. 16). Their credit ratings have stabilized well below where they were before the European debt crisis. Such lower ratings limit the fiscal space available to these countries given the narrowed buffer above a high yield credit rating. This is particularly the case in Spain and, above all, Italy (see Fig. 17).

A credit rating below investment grade precludes a country’s banks from accessing the European Central Bank’s (ECB) monetary liquidity operations, as was true with Greece in 2015, and leads to capital controls in the absence of a bailout program. Even the downgrade of a country below investment grade by only some of the rating agencies can exclude its debt from bond indexes and trigger forced selling. This situation in turn may increase bond yields and funding costs.

Limited fiscal flexibility under the SGP

The Stability and Growth Pact (SGP) focuses on structural fiscal dynamics, with the EU having made required budgetary adjustments more flexible. Countries are no longer obliged to reduce their structural imbalance when in recession or growing deeply below trend. In such circumstances, no compensating measures are required on the structural balance to address the deteriorating cyclical balance when the “automatic stabilizers” (lower tax receipts and higher unemployment benefits) operate in earnest.

In practice, funding conditions in financial markets determine the scope for fiscal maneuver. A temporarily growing deficit accompanied by credible reforms that prevent credit ratings from migrating below investment grade (IG) can keep funding conditions affordable. Otherwise, investor concerns and rising bond risk premiums can limit the fiscal space more forcefully than the SGP. Such reforms may include credibly addressing oversized public sectors, revamping tax systems, introducing deep labor market reforms and decisively restructuring public pension systems.

European funds: Measures taken since the last crisis

While not increasing fiscal space per se, the European Stability Mechanism (ESM) can provide credit lines to countries suffering from reduced market access. It has a lending capacity of EUR 500bn, of which EUR 410bn is untapped (roughly matching this year’s gross bond issuance of Italy and Spain). So it would be unable in its current shape to cope with a protracted crisis or big countries facing deep troubles.

Linking it to an Outright Monetary Transactions (OMT) program would create some fiscal space, as the ECB could curb spikes in funding costs. Also, the Single Resolution Fund for banks and its backstop at the ESM (together EUR 120bn by 2024) could make a difference. Last but not least, the European Fund for Strategic Investments (EFSI) and the reallocation of EU funds to stressed member states might generate fiscal space as well. In the future, a Eurozone budget could also help, even if the final decision and details are still pending and its initial size is likely to be small.

Untapped sources of fiscal space

The OECD has been spearheading efforts to fundamentally change corporate taxation in today’s digitalized environment. Its proposals would raise tax revenue in the Eurozone as a whole and create new fiscal space. But the EU’s fragmented taxation landscape is hindering member states from forging a common position.

Nonetheless, a global recession would probably not only accelerate efforts to tackle multinational taxation but lead to implementation of some of the more stringent OECD proposals that go well beyond the minimum goal of handling digital companies. The EU’s Financial Transaction Tax (currently in force in France and Italy) would also likely be adopted more quickly by other Eurozone member states. In sum, a recession would probably spur a change in the international tax architecture given the pressing financial needs of governments.
Fiscal balances and its components

Fiscal improvements since the euro crisis mostly driven by the business cycle, in % of GDP

Note: The structural primary balance is a proxy for the government’s fiscal thrust, while the cyclical balance is driven by the business cycle.

Shaded forecasts are sourced from the European Commission.

Source: European Commission, Haver Analytics, UBS.
Fig. 16  
Fiscal Sustainability Risk assessment  
Elevated risks in the long term

<table>
<thead>
<tr>
<th>Country</th>
<th>Short-Term</th>
<th>Medium-Term</th>
<th>Long-Term</th>
<th>Gross debt (% of GDP)</th>
<th>Gross financing need (% of GDP)</th>
<th>Cyclically-adjusted balance (% of GDP)</th>
<th>Cumulative pending fiscal effort to comply SGP (% of GDP)</th>
<th>Government debt in foreign currency (% share)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>74.5</td>
<td>7.1</td>
<td>-0.8</td>
<td>0.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Belgium</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>101.4</td>
<td>15.0</td>
<td>-1.1</td>
<td>1.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Cyprus</td>
<td>High</td>
<td>Medium</td>
<td>Medium</td>
<td>105.0</td>
<td>2.5</td>
<td>1.7</td>
<td>0.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Finland</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>59.8</td>
<td>7.8</td>
<td>-0.9</td>
<td>0.1</td>
<td>2.9</td>
</tr>
<tr>
<td>France</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>98.7</td>
<td>15.7</td>
<td>-2.7</td>
<td>1.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Germany</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>60.1</td>
<td>6.9</td>
<td>1.3</td>
<td>0.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Ireland</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>63.9</td>
<td>4.0</td>
<td>-0.2</td>
<td>0.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Italy</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>131.1</td>
<td>18.9</td>
<td>-1.8</td>
<td>3.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>53.2</td>
<td>6.4</td>
<td>0.4</td>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Portugal</td>
<td>Low</td>
<td>High</td>
<td>Medium</td>
<td>121.5</td>
<td>12.9</td>
<td>-1.4</td>
<td>1.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Spain</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>96.9</td>
<td>17.3</td>
<td>-3.2</td>
<td>3.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Sweden</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>37.8</td>
<td>4.5</td>
<td>0.9</td>
<td>0.0</td>
<td>23.6</td>
</tr>
<tr>
<td>Denmark</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>33.3</td>
<td>4.0</td>
<td>0.5</td>
<td>0.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Poland</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>49.2</td>
<td>5.0</td>
<td>-2.0</td>
<td>1.0</td>
<td>31.8</td>
</tr>
<tr>
<td>Hungary</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>72.9</td>
<td>20.1</td>
<td>-3.9</td>
<td>1.7</td>
<td>25.8</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>33.2</td>
<td>4.6</td>
<td>0.9</td>
<td>0.0</td>
<td>45.4</td>
</tr>
<tr>
<td>Croatia</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>73.5</td>
<td>7.8</td>
<td>-0.5</td>
<td>0.0</td>
<td>76.3</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>23.3</td>
<td>0.0</td>
<td>0.7</td>
<td>0.0</td>
<td>80.6</td>
</tr>
<tr>
<td>Romania</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>35.1</td>
<td>7.0</td>
<td>-3.5</td>
<td>2.4</td>
<td>51.7</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>86.0</td>
<td>8.1</td>
<td>-1.8</td>
<td>0.6</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: SGP stands for Stability and Growth Pact, i.e. the Eurozone’s fiscal framework. Time horizon for risk assessment is one year for short term, 15 years for medium term and infinite for long term.  
Source: European Commission, Haver Analytics, UBS

Fig. 17  
Sovereign credit rating evolution  
Italy and Spain with fiscal constraints due to small buffer above high yield rating

Note: Average ratings of Moody's, S&P and Fitch  
Source: Fitch, Haver Analytics, Moody's, S&P, UBS
The holy grail of fiscal space: Fiscal union
A fiscal union complemented by a central bank that can monetize government debt represents the ultimate way to create more fiscal space in the Eurozone. A central Eurozone government with significant fiscal authority across the region would likely achieve a similar credit rating as the US. Even ratings of individual member states would benefit. A fiscal redistribution scheme among member states to narrow the gap between the strongest and weakest members would boost their average (GDP-weighted) credit ratings.

The US’s AAA rating, however, also benefits from the country’s federal structure: the individual states ultimately cannot rely on central government support, so they are typically rated between A and AAA. As long as Eurozone member states aren’t willing to give up sovereignty on a large scale, a fiscal union remains unlikely. Their wide debt divergences act as another disincentive. So a harsher recession than the one sketched in our third scenario is probably necessary for peripheral countries to waive sovereignty and for the strongest countries to decide to accept fiscal transfers or Eurobonds.

Conclusion
Considering the risk of credit rating downgrades and sharply rising bond risk premiums, fiscal space is rather limited in the periphery and long-term fiscal sustainability is threatened. What’s more, for several sovereigns, the buffer between their credit rating and high yield ratings is the least it’s been in recent economic history, constraining fiscal space. Powerful fiscal-transfer mechanisms or Eurobonds seem out of reach given today’s political climate. While the institutional framework has improved since the euro crisis, the ESM in its current setup is insufficient to combat a deep recession hitting Italy and Spain. In such a scenario, the ECB’s OMT remains as an untapped resource to help to defend the Eurozone’s integrity.

Monetary space
Zero lower bound constraining the ECB
The International Monetary Fund’s (IMF) former Chief Economist Olivier Blanchard once pointed out that the US Federal Reserve’s policy rate response to a recession has averaged five percentage points over the last 50 years. With the European Central Bank’s (ECB) rate now at –0.40% and near the zero lower bound (see Fig. 18), the policy space available is obviously constrained and raises the specter of recessions becoming deeper and longer. In the event of a Eurozone recession, reducing bank loan rates is key to stimulating the economy, as 80% of it is funded through banks. We estimate the point at which the ECB deposit rate and cash storage costs balance each other out at about –1% (i.e. the zero lower bound), which would burden bank profitability (see chapter three for more details). Cutting the rate more deeply is possible, but the hurdle to clear and the risks are high, in our view, and would necessitate at least a severe recession (see box on monetary policy 3). Also, the ECB reaction function might change under the new leadership.

Savers would face stiffer headwinds in an economic downturn, as interest rates would likely fall. For example, bank deposit rates falling by another 1% would equate to almost one percentage point of lost GDP, while it is normal for interest rates to drop during recessions. Even if the ECB managed to engineer a soft landing in our expansion scenario, it would take several years for the policy rate to normalize. And even in the best-case scenario, the rate would probably not reach 3%, leaving a gap for non-conventional policy to fill.

Hurdles a sovereign QE program faces
The ECB’s last quantitative easing (QE) program has almost exhausted the issue/issuer limits of 33% of bonds outstanding. Work is underway to adapt Collective Action Clauses (CACs) that would soften issue but not issuer limits, though they remain a major constraint for now. The European Court of Justice’s recent ruling on QE suggests that the ECB’s sovereign bond holdings should, in any event, amount to less than 50% of a sovereign’s bonds outstanding (i.e. including future...
Outright Monetary Transaction (OMT) purchases), which we see as binding.

Nonetheless, should the euro face a future threat, Eurozone heads of state could decide to loosen the issuer limit constraint and permit the ECB to move closer to this 50% sovereign ownership threshold. But another QE program may lead to the Eurozone’s benchmark yield curve (Bunds) ending up entirely and deeply in negative territory. This may create problems of its own for Eurozone banks (and their depositors), as well as for insurers and pensions funds, for example.

**The ECB in a moderate recession**
The central bank would still face pressure here to offer a commensurate policy response. A de-anchoring of inflation expectations could spur deep deflation, and a lack of adequate market liquidity would likely provoke excessive market volatility. In addition, a recession in the early 2020s implies that the ECB policy rate would still be far below the normalized 2%–2.5% of the expansion scenario. In our view, this backdrop would lower the hurdle for the ECB to use other non-conventional tools.

They could include not only cutting the deposit rate to –1%, employing (targeted) longer term refinancing operations (T)LTROs with full allotment, extending reinvestments, loosening collateral rules and conducting corporate and asset-backed security (ABS) purchases, but also buying equities, as the Bank of Japan has done (see Fig. 19). This unusual measure, because of the limited market capitalization of Eurozone stocks, would likely be used only as a complement to other asset purchases, in our view.

Yet government deficit expansions may be too limited and the economic pressure insufficient to overcome the political obstacles against adopting a renewed full-scale sovereign asset purchase program. Permitting OMT programs would be likelier, even if less so than in a severe recession, given the more moderate shock to credit spreads. In any event, we would expect 10-year Bund yields to fall to historical lows comparable to those in Switzerland. A moderate recession in the early 2020s may take the ECB until the latter part of the 2020–2025 time period to start raising interest rates again.

**Monetary policy 3 (MP3)**

Ten-plus years after the financial crisis, policy rates remain low in many countries. According to the IMF, only two OECD countries have monetary space exceeding 500 basis points and only three above 250 basis points. This raises the question of what follows monetary policy 1 (i.e. combatting a recession with interest rates) and monetary policy 2 (using QE programs to do so). Much research has been done since the crisis on how to remove the zero lower bound and restore monetary policy space. A recent IMF proposal, for instance, not only includes deeply negative policy rates (including on bank accounts, if deeply negative policy rates persist), but also penalties on cash, such as haircuts on cash withdrawals, to eliminate incentives for cash hoarding and to avoid capital controls. Although the concept has been studied in detail, many unanswered questions remain. For example, would such measures really stimulate the economy? And would economic agents respond by saving or spending more? Although the concept remains a work in progress and entails large risks, investors are well advised to follow the debate about it. What’s more, should other key countries go this route, the ECB would most likely have to follow suit if it wanted to avoid a skyrocketing euro. Other ideas for the next generation of monetary policy include bypassing banks through helicopter money (possibly in combination with spending incentives) or raising the inflation target.
Severe recession: Pulling out all the stops

Here the Eurozone would likely move into survival mode given the danger to the euro. With government deficits ballooning, credit ratings under intense pressure and the ECB policy rate barely higher than today (if at all), the bar for sovereign asset purchases would drop and reinvestments would be extended, in our view. OMT programs would likely be used to address the asymmetric shock to credit spreads within the monetary union. Safe haven flows on their own would push Bund yields into record negative territory, below what they would be in a moderate recession.

Equity purchases may also be needed to supplement corporate and ABS purchases and address liquidity issues and financing conditions. Meanwhile, banks would receive support from even bigger (T)LTRO programs (with full allotment) and looser collateral rules – conceivably too from the ECB buying loan books or the European Stability Mechanism (ESM) granting loss-sharing guarantees on new bank loans. The deposit rate would likely be cut to –1%, while the probability of deeper cuts would be much higher than in the moderate recession scenario (see box on monetary policy 3). This in turn would sharply increase the likelihood of a sovereign QE program being adopted (to supplement OMT program(s)). Such a recession occurring in the early 2020s would worsen the output gap notably before it had fully recovered from the euro crisis, so the ECB might need until the latter part of the 2020s before it could raise policy rates again.

Conclusion

The ECB has not reloaded its policy guns yet, so an economic slump in the early 2020s would task the central bank with being creative. Much of the policy outlook will depend on the new team that will be running the central bank and other institutions soon, as well as on potential changes made to the Eurozone’s fiscal framework (in particular in the severe recession scenario). What’s more, the immense pressure a recession, in particular a severe one, can exert on an economy may blur the boundaries of what is permitted under the European treaties.

If the euro is endangered and member states stick to their commitments, the policy response to the downturn may entail the use of bold measures not part of today’s toolkit (MP3). They could include cutting the policy rate below the –1% lower bound or releasing helicopter money – to name two options. But these options would entail large disadvantages and risks, placing considerable obstacles in the path of the ECB adopting them. For now, the policy responses assumed here focus on what is found in the existing central bank toolbox, but investors should expect to be surprised, in particular in the event of a severe recession.
Impact

A Eurozone recession would have numerous consequences for investors. In bond markets, lower policy rates, deflation and safe haven flows would push Bund yields to record lows. In a severe recession, the government debt of some countries would soar to record levels, leading to spiking spreads, sovereign rating downgrades and deteriorating high yield credit. A lack of market liquidity would exacerbate volatility, and debt-restructuring and euro-exit concerns would resurface in Italy. What’s more, market pressure could force the country to enact major fiscal adjustments to retain an investment grade (IG) rating from at least one rating agency, exacerbating recessionary forces.

Banks should be able to cope with a moderate recession, but a more severe one may push some of them near or below minimum ECB capital requirements. International exposures could undermine earnings for Spanish and French banks, though large diversified Italian lenders may manage to retain their IG rating.

We would expect the euro to survive both recession scenarios due to strong popular support for it. And, in fact, against the USD, the euro could benefit, at least initially, from the unwinding of the interest rate differential. But populists reviving their anti-euro agenda and countries conducting fiscal austerity in a global recession could put the cohesiveness of the Eurozone at risk, particularly if we were to see a severe recession in Italy.

Smaller currencies like the Swiss franc and Swedish krona may appreciate amid safe haven flows, and the British pound and Japanese yen could also attract interest from investors seeking diversification.
Bond markets

Recession may lead to record negative Bund yields

According to the Stability and Growth Pact (SGP), no fiscal consolidation efforts are required during a recession or when the output gap is deeply negative. But should a severe recession strike in the early 2020s, a lack of such efforts would cause deficits to balloon across the Eurozone. When accompanied by safe haven flows and the European Central Bank (ECB) both expanding its balance sheet by trillions of euros and cutting the deposit rate to –1% (or further), a moderate recession in the early 2020s would likely push German Bund yields into record negative territory, roughly to the historical lows of Swiss sovereign bonds (see Fig. 20). The increased risk premium over Bunds could trigger portfolio re-allocations by German investors to German real estate, which would also see cross-border flows arising from Eurozone break-up fears. Should a recession last longer than expected, growing risks to vacancy rates and tenant bankruptcies may develop into headwinds. In a severe slump, headline and core inflation would turn into deflation, we believe, and depress Bund yields still more. In addition, the likelihood of the ECB going substantially below –1% would increase in a severe recession, pulling down Bunds yields well below the historical lows seen in Swiss sovereign bonds.

Eurozone government debt leaves countries vulnerable

Government debt-to-GDP ratios are likely to go on declining moderately in most countries in the expansion scenario. Bond yields would rise in tandem with the ECB policy rate and credit ratings in the periphery would probably increase by one notch on average. In a recession scenario, today’s debt ratios would only be reached again by one notch on average. In a recession scenario, today’s debt ratios would only be reached again by one notch on average. In a recession scenario, today’s debt ratios would only be reached again by one notch on average. In a recession scenario, today’s debt ratios would only be reached again by one notch on average. In a recession scenario, today’s debt ratios would only be reached again by one notch on average. In a recession scenario, today’s debt ratios would only be reached again by one notch on average. In a recession scenario, today’s debt ratios would only be reached again by one notch on average. 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Italy is at risk of dropping to sub-investment grade in a severe recession

Many countries would likely face rating downgrades in the severe recession scenario. Refinancing conditions and the European Stability Mechanism’s (ESM) rating would suffer, to a point that we think it would not exceed France’s rating by more than one notch. In the case of Italy, the risk of a credit rating downgrade to below investment grade (IG) hampers its fiscal space in a recession. A severe downturn would probably even force it to make major structural adjustments to free up resources such as through a credible, decisive pension reform (possibly in combination with a wealth tax), which would deepen the economic slump.

Italy’s debt burden already hovers around 130% of GDP. Its credit ratings are at or close to the lowest IG level (Moody’s: Baa3). A single IG rating from either Moody’s, S&P, Fitch or DBRS is sufficient for the ECB to provide liquidity to banks against collateral, a situation we regard as achievable in all three scenarios. Bonds from developed countries that drop to high yield status are not part of any relevant benchmark index used by institutional investors (high yield indexes usually only consider corporate bonds). Just the danger of index exclusion can induce investors to reduce positions. Ultimately, domestic ownership of Italian and other peripheral government debt (see Fig. 22 for debt owned by residents in the country) would likely rise as a result of a recession.
Fig. 21

Sovereign debt-to-GDP simulations under various scenarios

Gap between Germany and other sovereigns to widen, in %

Expansion scenario

Recession scenario

Severe recession scenario

UBS CIO forecast

Source: Haver Analytics, UBS
Investors to question Italy’s euro membership in a severe recession
Credit risk premiums typically start to widen significantly about 12 months ahead of a recession. Given Italy’s adverse starting point, investors would likely question its long-term debt sustainability and euro membership in a severe downturn, which would be exacerbated by lower euro support in a downturn (see page 30). Soaring risk premiums toward 2012 levels and growing fiscal risks would probably trigger cautious reactions from rating agencies (see Fig. 20). The longer Italy’s government takes to present credible reforms to bolster its long-term fiscal profile, the greater the risk of negative rating actions, in our view.

Given its conservative nature, we consider Moody’s likeliest to lower Italy’s rating to the BB category (even with ECB support). A downgrade by S&P to high yield status is less likely but still a major risk. Any rating action would depend on, aside from debt paths, the credibility of reform efforts (in particular the extent of the pension system reform), support from the ECB and other Eurozone countries, and the risk of funding stress. Though the third largest for government bonds, Italy’s bond market, as last summer demonstrated, can be fairly illiquid when facing selling pressure. This can translate into excessive yield spikes and difficulties in selling new bonds at affordable rates.

The euro high yield segment would suffer
For domestically oriented companies like most banks and utilities, the country credit rating can act as a ceiling on their own rating since they are in danger of being pulled along by a sovereign debt restructuring. As a consequence, many Italian corporate bonds may drop into the euro high yield market, where Italy already has a significant weighting. This could spark a sell-off in addition to the generally greater default risk high yield issuers face in a severe recession.

Contagion would likely be felt across Europe
We think that in a recession scenario, and particularly in a severe one, where the integrity of the currency union would be questioned, risk premiums of lower-rated countries would be strongly correlated. Along with Italy, Greece, Portugal and Spain, we also expect other smaller and open economies such as the Eastern European and Baltic euro member countries to be impacted. We think Greece would be hit hard both by the economic backdrop and heightened Eurozone break-up fears. Decisive support from the ECB could limit contagion, but it would take time, in our view, for its policy measures to balance the selling pressure from private holders and reduce risk premiums.

Conclusion
Record-low Bund yields in recession scenarios would help strong countries weather the fiscal hit, while investors would demand high risk premiums for less-liquid bonds of lower-rated peripheral countries. Debt loads would in many cases reach record highs. Greece would likely require further funding support and Italy would move into the spotlight of debt restructuring and euro exit concerns. Risk premiums of peripheral bonds and high yield corporate bonds would spike. In our view, ECB and ESM support mechanisms could mitigate the dire effects only if national governments addressed their fiscal and structural weaknesses in a credible and timely fashion.

Italian tax payers ultimately carry most of BTP’s risk
The debate about Italian government bonds often centers on one headline ratio: public debt relative to GDP, which currently hovers around 130%. But other measures are also important, for example, net private wealth, which is four times the public debt, and the fact that almost 70% of government bonds are held by domestic investors.

This suggests that, if worse came to worst, a wealth tax could serve as an efficient tool for dealing with a crisis. It could be applied to real estate and/or financial assets. Of course, it would be political contentious and may only be adopted in a high-stress scenario.
The banking sector has strengthened notably this decade

The Eurozone banking sector is in much better shape today than it was before the 2008–09 financial crisis (see Figs. 23, 24 and 25). It has raised EUR 334bn of capital in the last decade, equal to 60% of its tangible equity. But each country’s banking situation is different with its own specific problems. On aggregate, they are the cause of the sector’s low profitability, though the dispersion among countries is great.

Despite the improvements, peripheral Eurozone banks still suffer from below-average asset-quality metrics, and their exposure to domestic sovereign bonds remains large. In contrast, banks located in core Eurozone countries have good asset quality. However, German institutions in particular are afflicted by structurally low profitability owing to the large market share of those that are publicly owned and the market’s fragmentation. A severe recession would spill over across Eurozone banks mainly through economic interlinkages, such as international business activities and financial exposures, but also through a rise in funding costs.

A severe downturn would require much more policy support

Depending on the severity of the recession, non-performing loans could increase markedly. They are unlikely, however, to reach the peaks of the previous global financial crisis given the much tighter credit standards applied by banks in recent years and the fairly stable leverage of the corporate sector. Household leverage, however, has climbed notably in northern Europe, which may become worrisome in the event of a real estate crisis.

In our view, a moderate recession should be manageable from a capital perspective, while a severe slump may cause the capital ratios of some institutions to approach or fall below the European Central Bank’s (ECB) minimum requirements, which would then require recapitalizations and a more substantial policy reaction. Mark-to-market losses on risky assets, including low-rated government bonds, would aggravate contagion to the banking sector and increase stress on the banks’ capital levels.
Regional business diversification may hurt in a crisis, though in a manageable way
In a deep global crisis, banks’ international exposure to countries suffering a severe slowdown may drag on earnings and capital. Yet we think that even a severe economic downturn in emerging markets would be manageable from a capital perspective, though it would temporarily undermine earnings for the most exposed institutions, such as Spanish banks. We would expect a similar outcome for French banks due to their large cross-border activities in, for example, Italy and Germany; some asset holdings might cause credit losses and stress in a harsh recession, but we regard them as manageable given the banks’ earnings diversification.

Major Italian banks might be able to defend their IG credit ratings
Rating agencies in a severe recession would probably downgrade Eurozone banks by one or two levels. The main senior funding source, so-called subordinated senior bonds, of a number of major banks are already rated low BBB. These ratings are at risk of being downgraded, which would add stress to bond markets. The large diversified Italian banks should be able to retain their investment grade (IG) issuer ratings, while subordinated senior debt would likely fall below IG. The credit market would already question the IG ratings of the low BBB-rated senior bonds several quarters before the recession hits, with spreads potentially peaking at 2011–12 levels.

The ECB as lender of last resort
In a moderate recession, the costs for market funding for the weakest banks are likely to rise well above the sector average, while in the case of an acute slump like 2008’s (see Fig. 26) we would expect bond markets to remain shut for a large swathe of the Eurozone banking sector and only be accessible to the strongest and highest-rated institutions. More substantial central bank support would be needed in this case along with ad-hoc policy measures taken at the national and EU level.

The ECB has a number of tools available to it to support financial stability in a severe slump. They range from liquidity facilities – for example, via larger (targeted) longer term refinancing operations (LTROs) – to asset purchase programs. We don’t expect the ECB to purchase bank bonds or bank stocks in a recession due to the conflicts of interest arising from its role as bank supervisor. Incentives for loan creation would also be likely, for example through LTROs, partial loan loss guarantees (for example through the European Stability Mechanism) or by stripping banks of loan books. The ECB would also likely loosen collateral requirements so that banks have better access to liquidity.

Hurdles for imposing negative rates on retail deposits are high
Over a short time period, European banks should be able to cope with interest rates even lower than they are now, managing the declines in their net interest margin. But should the ECB lower deposit rates to –1% and keep them there for a long time, bank profitability – particularly in the core Eurozone – would suffer. Banks would react by trying to increase lending rates, participating more actively in internationally syndicated loans to support credit growth, allocating funds to higher yielding assets and introducing new fees. While negative rates would likely be passed through to corporate and large depositors, hurdles for imposing them on retail deposits appear high. But the chances that retail deposits would be charged would increase the longer the crisis lasts. However, should the ECB cut the policy rate significantly below –1% for a protracted period, negative retail deposit rates would likely materialize (see box on monetary policy 3 in chapter 2 for further details), coupled with restrictions such as for example haircuts on cash withdrawals.

Bank resolution: A mix of consolidation, bail-ins and bail-outs likely
A deep crisis would be followed by years of restructuring and consolidations (see Fig. 27 for the current bank resolution framework). As long as regulatory hurdles persist and the Eurozone banking union project remains unfinished, large-scale cross-border mergers appear unlikely. Instead, private investors and governments would have to provide capital to the sector. This would likely in-
volve the selective bail-ins of creditors, mostly subordinated ones. Government capital injections would have to be subject to parliamentary debate and European Commission state aid procedures. Most likely, they would be limited in size. Creditors and shareholders of smaller banks would probably face harsher resolution treatment than creditors of large and systematically important banks.

Conclusion
A moderate recession should be manageable from a capital perspective, while a severe one would require recapitalizations and a stronger policy response. After a severe downturn with negative rates spreading over several years, Eurozone banks would enter into an extended restructuring period. The combined efforts from shareholders, creditors, governments and the ECB would be necessary to restore financial stability.

Fig. 27
Eurozone bank resolution framework
How a bank is resolved in the Eurozone

Preparation
– Banks draw up recovery and resolution plans
– Supervision by SSM and national authorities
– Banks contribute to Single Resolution Fund
– Compliance with capital rules and building up of loss absorbency capacity (MREL)

Bank failing or likely to fail

– Are all private measures/supervision actions exhausted?
– Is there public interest to save the bank?

No
Bank wound up

Yes
Bank resolved

Use of single resolution fund (SRF)
(+/- € 60 Billion by 2024)
– To ensure the effective application of the resolution actions
– In exceptional circumstances, to absorb losses or to recapitalise a bank

ESM Backstop
(+/- € 60 Billion at the latest 2024)
if SRF doesn’t have sufficient means, ESM lends additional funds to carry out resolution action

Source: European Commission, UBS
Euro

**Historically high support for the euro**

When gauging the possibility of a break up of the Eurozone, we assume that Eurozone membership ultimately depends on popular will. The Greek standoff in 2015 showed that leaving the euro without a popular mandate is unlikely. Greece remained in the currency union despite having a government with an anti-euro agenda and falling victim to an unexpected turn of events in June 2015 that led to capital controls. The standoff also demonstrated that a country cannot be pushed out of the euro or the EU against its will. To this effect, we believe that the economy and in particular the labor market largely determine the populace’s support for the euro (see Fig. 28). That support, on the whole, has risen in tandem with the fall in the unemployment rate since 2013. Of late, it has reached record highs, with a majority of voters in each of the 19 member states regarding the single currency as a good thing (see Fig. 29). More broadly, the support for the currency reflects the benefits of the euro, such as price stability and ease at doing business. Accordingly, we expect public enthusiasm for the euro to continue climbing in our expansion scenario, but to decline in the recession scenarios, triggering a debate about its benefits. A hard Brexit in turn would probably increase support for the euro and the EU, as it did after the UK referendum in 2016.

**Rising populism: Leveraging the next recession**

Populists have benefited from immigration concerns and the euro crisis (see Fig. 30). Few populist parties favor exiting the euro today, given the widespread support for the currency in recent years. But we expect them to revive their anti-euro agenda once a recession erodes these good feelings. Investors need to bear this possibility in mind, as standoffs between member countries and Eurozone institutions have already led to economic downturns in the former (i.e. Greece in 2015 and Italy in 2018). Should negative retail deposit rates materialize, we expect populists to take advantage of them as well. The timing of elections

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**Fig. 28**

*Euro support vs. unemployment rate*

Euro support highly correlated with economic well-being

<table>
<thead>
<tr>
<th>Year</th>
<th>Unemployment Rate</th>
<th>Euro Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td>2005</td>
<td>5.5</td>
<td>52</td>
</tr>
<tr>
<td>2006</td>
<td>5</td>
<td>53</td>
</tr>
<tr>
<td>2007</td>
<td>4.5</td>
<td>55</td>
</tr>
<tr>
<td>2008</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>2009</td>
<td>3.5</td>
<td>59</td>
</tr>
<tr>
<td>2010</td>
<td>3</td>
<td>61</td>
</tr>
<tr>
<td>2011</td>
<td>2.5</td>
<td>63</td>
</tr>
<tr>
<td>2012</td>
<td>2</td>
<td>65</td>
</tr>
<tr>
<td>2013</td>
<td>1.5</td>
<td>67</td>
</tr>
<tr>
<td>2014</td>
<td>1</td>
<td>69</td>
</tr>
<tr>
<td>2015</td>
<td>0.5</td>
<td>71</td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
<td>73</td>
</tr>
<tr>
<td>2017</td>
<td>0.5</td>
<td>75</td>
</tr>
<tr>
<td>2018</td>
<td>1</td>
<td>77</td>
</tr>
</tbody>
</table>

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**Fig. 29**

*Net support of the euro*

Solid support across the Eurozone, in % of respondents

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Note: Percentage of respondents in support of the euro minus those against it.

Source: Eurobarometer, UBS

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The future of Europe – April 2019
can be crucial, too, if they occur at the trough of enthusiasm for the currency. Elections in Germany by 2021 (subject to potential snap elections) and France in 2022 may slow solidarity and integration efforts, which in turn could heighten market volatility and increase safe haven flows to core countries like Germany. However, it is useful to recall that foreigners’ deposits in the former German Democratic Republic were converted at a worse rate than those of locals in the currency reform after reunification. In addition, the Deutsche mark may not necessarily be best placed following an unexpected euro break-up (which is not our base case) given its dependency on trade and its fundamental valuation (see Fig. 31).

**Populists and blocking minorities**

Should a recession strike, it is possible that populists may reach a blocking minority in the European Council (the most powerful European institution), able to thwart EU decisions. Such a minority would require a combination of four countries that represent at least 35% of the EU population. In Eurozone matters, Italy and Greece currently feature populist governments and their combined population represents 21% of the Eurozone’s (if populist Poland is included and the outbound UK excluded, the figure climbs to 25% at the EU level). Reaching the 35% threshold would enable populists to block any decisions on the euro, with mainstream Europeans effectively losing control over the currency. Within the European Stability Mechanism (ESM), the threshold for a blocking minority in an emergency falls to a mere 15%, which could become problematic for approving bailouts (and for the feasibility of Outright Monetary Transaction programs) if the number of fiscally hawkish countries climbs. The conservative Hanseatic League, founded in February 2018 (Eurozone members: Netherlands, Baltics, Ireland and Finland), already accounts for a 10% share in the ESM, for example.

**Italy: Fiscal adjustment to weigh on euro support in a severe recession**

Although citizen support for the euro is generally very high, the difference in it in countries that favor it most and least is over 20 percentage points. Italy is among the member states whose backing is weakest, even if it has risen notably in recent years. What’s more, any large fiscal tightening in a severe recession would drag on the economy and the Italian labor market, with enthusiasm for the currency likely to wane. In Fig. 32 we have applied the average decline in support for the euro during the last two recessions using today’s starting point in Italy. On this basis, net support for it (i.e. those in favor minus those against) would fall to the lowest figure on record. It would still remain significantly undervalued in most places, particularly France.

**Fig. 30**

Eurozone populism index
Future recession: Next wave to ride following euro and immigration crises, in %

![Graph](image_url)

Source: National polls, UBS

**Fig. 31**

Purchasing power parity against US Dollar by country
Significantly undervalued in most places, particularly France

![Graph](image_url)

Source: Macrobond, UBS
in positive territory in a recession, albeit marginally. A decline as illustrated in Fig. 32 may well become a market driver notwithstanding the legal hurdles to a euro exit. The fall off in support could be less if citizens fear the costs of a euro exit, but also larger if economic difficulties turn out worse, populists credibly campaign against the currency and retail deposit rates become negative. Much would also depend on the individual country’s initial support level and whether elections took place at the low point of euro enthusiasm.

**Challenges in other countries too**

Other countries might face challenges of their own. In a severe recession, negative Bund yields could create difficulties in the German banking sector and push retail deposit rates into negative territory, boosting the appeal of the Alternative for Germany (AfD) party and making future government formation even more difficult. The timing of such a severe downturn would be key, with elections currently foreseen for late 2021 (subject to potential early elections). The French elections in 2022 will also come into focus if President Emmanuel Macron’s popularity declines in the next couple of years. Greece will remain a special case, in our view, as it depends less on markets and more on its public creditors, which should enable it to reduce its primary surplus target in a recession and retain its euro membership as long as it sticks to the rules. We think that Cyprus would not drop out of the euro for geopolitical reasons. Spain and Portugal can also be expected to remain as both their populaces solidly back the euro. Uncertainty is still high though, because any country potentially needing a bailout would face fiscal austerity during a recession that would likely erode support for the euro.

**Conclusion**

In our view, no Eurozone government is likely ever to opt out of the euro without a mandate from voters, which we don’t foresee any government receiving (see Fig. 32). And as long as member states stick to the rules, we expect European institutions to do their part to keep the common currency area together. But break-up risks would clearly increase in a recession scenario (especially a severe one) and populist representation at the European level could approach or even reach blocking minorities. This would add to market volatility stemming from a recession and heighten uncertainty, particularly if fiscal austerity is imposed during it and negative retail deposit rates are applied. The resultant volatility in this case could affect credit spreads more than the euro, even if smaller currencies like the Swiss franc and the Swedish krona may become overwhelmed by safe haven flows in a harsh economic downturn. The British pound and the Japanese yen may also benefit from some diversification flows. Nonetheless, against the US dollar, the euro could at least initially face appreciation pressures during a global recession, if the EURUSD interest rate differential unwinds, since the US Federal Reserve has more leeway to ease interest rate policy in a global recession than does the European Central Bank, and the latter may react more slowly than the Fed.

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**Fig. 32**

**Italy: Popular support for the euro – recession simulation**

Expected to decline in the event of a recession, in % of respondents

Note: Percentage of respondents in support of the euro minus those against it. Forecast confidence interval (fan) uses average impact on euro support from the last two recessions.

Source: Eurobarometer, UBS
# The evolution of the EU: A timeline

The foundations are in place for a more resilient Eurozone

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>The signing of the Treaty of Paris by Belgium, France, Italy, Luxembourg, the Netherlands and West Germany sets up the European Coal and Steel Community.</td>
</tr>
<tr>
<td>1957</td>
<td>The European Economic Community (EEC) is launched with the signing of the Treaty of Rome by Belgium, France, Italy, Luxembourg, the Netherlands and West Germany.</td>
</tr>
<tr>
<td>1973</td>
<td>Denmark, Ireland and the UK join the EEC.</td>
</tr>
<tr>
<td>1975</td>
<td>The UK holds a referendum on EEC membership.</td>
</tr>
<tr>
<td>1979</td>
<td>The European Monetary System, which includes the Exchange Rate Mechanism (ERM) and the European Currency Unit (ECU), is launched. The first European Parliament elections take place.</td>
</tr>
<tr>
<td>1986</td>
<td>The Single European Act is signed and sets out a timetable for establishing a single market by 1992. Spain and Portugal join the EEC.</td>
</tr>
<tr>
<td>1990</td>
<td>German reunification.</td>
</tr>
<tr>
<td>1992</td>
<td>The Maastricht Treaty is signed, creating the EU. It establishes a timetable for the euro and introduces convergence criteria among member states. On Black Wednesday, the British government is forced to withdraw the pound sterling from the ERM.</td>
</tr>
<tr>
<td>1994</td>
<td>The European Monetary Institute (EMI), the forerunner of the European Central Bank (ECB), is created.</td>
</tr>
<tr>
<td>1995</td>
<td>Accession of Austria, Finland and Sweden.</td>
</tr>
<tr>
<td>1997</td>
<td>The Treaty of Amsterdam is signed and introduces the Stability and Growth Pact.</td>
</tr>
<tr>
<td>1998</td>
<td>The ECB formally replaces the EMI.</td>
</tr>
<tr>
<td>1999</td>
<td>The euro is launched as an accounting currency and adopted by Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain.</td>
</tr>
<tr>
<td>2001</td>
<td>The Treaty of Nice is signed. Greece joins the euro.</td>
</tr>
<tr>
<td>2002</td>
<td>Euro notes and coins are introduced.</td>
</tr>
<tr>
<td>2004</td>
<td>Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia join the EU.</td>
</tr>
<tr>
<td>2007</td>
<td>EU member states sign the Treaty of Lisbon. It comes into force in December 2009. Bulgaria and Romania join the EU.</td>
</tr>
<tr>
<td>2010</td>
<td>The temporary European Financial Stability Facility (EFSF) is created.</td>
</tr>
<tr>
<td>2012</td>
<td>The permanent European Stability Mechanism (ESM) becomes operational. The Fiscal Compact is signed. ECB President Mario Draghi pledges to do whatever it takes to preserve the euro, and the ECB establishes its Outright Monetary Transactions (OMT) program.</td>
</tr>
<tr>
<td>2013</td>
<td>Croatia joins the EU.</td>
</tr>
<tr>
<td>2015</td>
<td>The Five Presidents’ Report “Completing Europe’s Economic and Monetary Union” sets out ambitious plans on how to deepen the EMU by 2025. The Expanded Asset Purchase Programme (QE) is initiated by the ECB.</td>
</tr>
<tr>
<td>2016</td>
<td>The UK holds a Membership Referendum and votes to leave the European Union.</td>
</tr>
<tr>
<td>2018</td>
<td>The Meseberg declaration is signed: France and Germany “renew Europe’s promises of security and prosperity”.</td>
</tr>
</tbody>
</table>

Source: European Commission, UBS
## Europe in numbers

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>EU</th>
<th>Eurozone</th>
<th>US</th>
<th>Japan</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
<td>511.9</td>
<td>340.7</td>
<td>326.0</td>
<td>126.7</td>
<td>1390.1</td>
</tr>
<tr>
<td><strong>Average real GDP growth over past decade</strong></td>
<td>%</td>
<td>0.9</td>
<td>0.6</td>
<td>1.5</td>
<td>0.5</td>
<td>8.2</td>
</tr>
<tr>
<td><strong>GDP (share of world GDP in PPP)</strong></td>
<td>%</td>
<td>16.5</td>
<td>11.6</td>
<td>15.3</td>
<td>4.3</td>
<td>18.2</td>
</tr>
<tr>
<td><strong>GDP per capita</strong></td>
<td>EUR thousands</td>
<td>30.0</td>
<td>32.9</td>
<td>43.5</td>
<td>30.6</td>
<td>12.6</td>
</tr>
<tr>
<td><strong>Value added by economic activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, fishing, forestry</td>
<td>% of total</td>
<td>1.7</td>
<td>1.7</td>
<td>1.0*</td>
<td>1.2</td>
<td>8.9*</td>
</tr>
<tr>
<td>Industry (including constructions)</td>
<td>% of total</td>
<td>25.0</td>
<td>25.3</td>
<td>19.5*</td>
<td>29.3</td>
<td>40.0*</td>
</tr>
<tr>
<td>Services (including non-market services)</td>
<td>% of total</td>
<td>73.3</td>
<td>73.0</td>
<td>79.5*</td>
<td>69.5</td>
<td>51.1*</td>
</tr>
<tr>
<td>Unemployment rate (share of the labour force)</td>
<td>%</td>
<td>7.8</td>
<td>9.1</td>
<td>4.4</td>
<td>2.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Labour force participation rate</td>
<td>%</td>
<td>73.4</td>
<td>73.1</td>
<td>73.3</td>
<td>77.6</td>
<td>–</td>
</tr>
<tr>
<td>Employment rate</td>
<td>%</td>
<td>67.6</td>
<td>66.4</td>
<td>70.1</td>
<td>75.4</td>
<td>–</td>
</tr>
<tr>
<td>Tertiary school enrollment</td>
<td>%</td>
<td>68.4</td>
<td>72.5</td>
<td>88.8*</td>
<td>63.6*</td>
<td>51.0</td>
</tr>
<tr>
<td><strong>General government</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surplus (+) or deficit (-)</td>
<td>% of GDP</td>
<td>–1.0</td>
<td>–1.0</td>
<td>–4.1</td>
<td>–3.4*</td>
<td>–3.9</td>
</tr>
<tr>
<td>Gross debt</td>
<td>% of GDP</td>
<td>81.6</td>
<td>86.8</td>
<td>96.7</td>
<td>224.3</td>
<td>47.0</td>
</tr>
<tr>
<td>Revenue</td>
<td>% of GDP</td>
<td>44.8</td>
<td>46.1</td>
<td>33.8</td>
<td>35.7*</td>
<td>28.4</td>
</tr>
<tr>
<td>Expenditure</td>
<td>% of GDP</td>
<td>45.8</td>
<td>47.0</td>
<td>38.0</td>
<td>39.1*</td>
<td>32.3</td>
</tr>
<tr>
<td><strong>External</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports of goods</td>
<td>% of GDP</td>
<td>12.6</td>
<td>20.3</td>
<td>8.0</td>
<td>14.2</td>
<td>17.7*</td>
</tr>
<tr>
<td>Exports of goods and services</td>
<td>% of GDP</td>
<td>18.3</td>
<td>28.0</td>
<td>12.1</td>
<td>18.0</td>
<td>19.6*</td>
</tr>
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<td>Import of goods and services</td>
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<td>16.2</td>
<td>24.0</td>
<td>14.9</td>
<td>17.2</td>
<td>17.3*</td>
</tr>
<tr>
<td>Current account balance</td>
<td>% of GDP</td>
<td>1.5</td>
<td>3.2</td>
<td>–2.3</td>
<td>4.0</td>
<td>1.8*</td>
</tr>
</tbody>
</table>

*2016 figures

Source: ECB, Eurostat, UN, BIS, IMF, OECD, Reuters, Haver Analytics and national sources. All data refer to 2017 unless otherwise noted.

### Notes

1. Euro data, US and Japan: annual average; China: end of the year data.

2. Data for US, Japan and China are converted into euro at OECD purchasing power parities (PPPs).

3. Ratio of the labour force to the working age population (aged 15 to 64). US: the proportion of the civilian non-institutional population (aged 16 to 64) either at work or actively seeking work. Annual average.

4. Ratio of persons employed to the working age population (aged 15 to 64). US: the proportion of the civilian non-institutional population (aged 16 to 64) at work. Annual average.

5. General government data for China are not directly comparable with the other major economic areas.

6. General government debt consists of deposits, debt securities and loans outstanding at nominal value and is consolidated within the general government sector, except for Japan and China. In addition, Chinese data follow a different methodology and are not directly comparable. Year-end.

7. European definition also for US and JP.

8. Euro area: based on extra-euro area transactions.
## 2020–2025 stress-test scenario assumptions

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Expansion</th>
<th>Moderate recession</th>
<th>Severe recession</th>
</tr>
</thead>
</table>
| **Economy**| – Normalization of monetary policy and soft landing without recession in the 2020–25 period  
– Growth to migrate toward economic trend growth of ~1% p.a. in 2024–25 | – Global economic recession drags Eurozone into recession in the early 2020s  
– Contraction of cumulative ~2ppt over a year followed by recovery | – Severe global economic recession drags Eurozone into a sharp recession in the early 2020s  
– Contraction of cumulative ~6–7ppt over one-and-a-half years followed by recovery |
| **Core inflation** | – It hits ~2% in 2022–23 and remains there  
– It’s pushed down following the recession but does not turn into deflation  
– It doesn’t return to its prior peak until 2025 | – It turns into modest deflation following recession  
– It doesn’t return to its prior peak until 2027–28 | |
| **ECB Interest rates** | – ECB goes beyond natural rate of interest to keep the output gap in check and avoid inflation overshooting  
– ECB deposit rate increases to ~2%–2.5% around 2022/2023 | – ECB lowers the deposit rate to the lower bound of –1%  
– First rate hike after recession toward the end of the 2020–2025 period | – The deposit rate is cut to the lower bound of –1%, with high risk of deeper cuts  
– No rate hikes following recession in the 2020–25 period |
| **ECB Asset purchases** | – No new asset purchase program needed  
– QE reinvestments until 2021 followed by runoff until 2027 | – ABS and corporate bond purchases (excluding bank bonds) over 2–3 years  
– Equity purchases (excluding bank stocks) over 2–3 years  
– Reinvestments of all bonds until 2026 | – OMT programs mitigate peripheral spread increases  
– Large-scale sovereign QE program until 2026 should ECB deposit rate be cut well below –1%  
– ABS and corporate bond purchases (excluding bank bonds) until 2026  
– Equity purchases (excluding bank stocks) until 2026  
– Reinvestments of all bonds until 2028 |
| **ECB TLTROs** | – No new TLTROs | – Launch of new (T)LTROs (~EUR 0.7trn) during recession | – Banks are supported through generous (T) LTROs (~ EUR 1.0trn) during recession  
– Loan incentives may include ESM loss-sharing guarantee on new loans or ECB buying loan books |
| **Fiscal** | – Governments continue to slowly improve their fiscal positions  
– Debt-to-GDP ratios come down slowly from high levels | – Fiscal policy diverges during recession depending on country ratings  
– Italy’s investment grade rating at risk | – Policy diverges during recession depending on ratings and fiscal space  
– Debt loads hit record levels in many countries  
– Italy downgraded to sub-investment grade at least by one rating agency. Severe fiscal adjustment during recession in Italy |
| **Banks** | – They continue to bolster their capital positions and reduce their NPLs | – Bail-in/BRRD is applied (incl. senior bonds), coupled with selective state aid  
– Interbank market undergoes stress but remains operational | – Bail-in/BRRD is applied (excl. senior bonds), coupled with more widespread aid  
– Interbank market collapses  
– A few outright bank failures materialize  
– Safe haven flows exacerbated |
| **Euro** | – Pace of Eurozone integration remains slow  
– No EU treaty change in the 2020–25 period | – No member state leaves  
– Safe haven flows  
– Market questions Greece’s Eurozone membership and potentially also that of Italy and Portugal  
– Creditors show flexiblity to Greece | – No member state leaves  
– Heavy safe haven flows  
– Market questions EMU’s integrity due to Greece, Portugal and Italy  
– Creditors show flexiblity to Greece |

Note: Scenarios for illustrative purposes
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