I would like to comment on the challenges ahead for central banks and how our monetary policy frameworks should adapt to them. Admittedly, I will be asking more questions than giving answers. I won’t be giving any definitive guide to the future shape of the European Central Bank’s (ECB) monetary policy framework. What I will offer is my view on some of the key issues on this topic and pose some questions of relevance to policymakers. Monetary policy operational frameworks concern the intermediate targets of central banks and how they meet them. This is distinct from monetary policy strategies, which concern the quantitative definition of policy objectives, the horizon over which they should be delivered as well as the organization and weighting of incoming information.

Operational frameworks can be designed along two main dimensions: 1) the operational target for monetary policy; and 2) the measures used for implementing that target, which include the mode of liquidity provision or absorption, the counterparties that are eligible to take part in those operations and facilities and the choice of collateral which is accepted in reverse repo operations. Where central banks position themselves along these dimensions is clearly path-dependent but it depends, among other things, on institutions and financial structures.
A comparison between the pre-crisis frameworks of the Federal Reserve and the ECB illustrates the different possible constellations.

While both central banks had similar operational targets—de facto one or more very short-term interest rates—the asset side of the Fed’s balance sheet consisted mainly of outright holdings of U.S. government bonds, considered as a safe asset. The Fed also steered liquidity conditions, at the margin, via repos, whereby the collateral set was narrow and again dominated by that safe asset. By contrast, the ECB, lacking a single fiscal counterpart and operating across multiple jurisdictions, injected liquidity mainly through repos with banks and deployed a wider collateral and counterparty framework (albeit with appropriate credit safeguards). Credit was provided to around 1,800 counterparties, against a set of collateral that comprised many different asset classes.

The ECB’s operational framework proved flexible when the crisis hit, helping cushion the initial financial turbulence. And as the crisis unfolded in successive “waves” and materially altered our market environment, we adopted further measures to meet the new challenges we faced. We are thus now presented with an important question—should we treat these changes as temporary imperatives that should be withdrawn as soon as conditions permit, or should they form a permanent part of our operational framework?

To answer this, we need to ask: of all the challenges we have faced during the crisis, which ones are likely to persist? And which measures should we retain to deal with them? In my view, there are two challenges that stand out. The first is how monetary policy should adapt to structural shifts in financial intermediation. The second is how to cope with the constraints imposed on central banks by the effective lower bound of interest rates.

I. Shifts in Financial Intermediation

Financial intermediation in recent years has been characterized by two structural shifts, one of which was specific to the euro area and one of which is global.
In the euro area, financial markets underwent severe spatial fragmentation in the early phase of the crisis, with intermediation retreating behind national borders and impairing the bank lending channel of monetary policy. Many of the changes to our operational framework during the crisis were a reaction to this. For example, the move toward fixed-rate full allotment liquidity provision, the widening of our collateral framework and the extension of the maturity of our lending operations acted as crucial stabilizers and averted sudden stops in market funding for national banking systems.

While this problem has now largely disappeared, it would be complacent to see it as completely resolved. Some key components of our banking union (such as the build-up of the Single Resolution Fund and the removal of national options and discretions in bank supervision) are still being phased in, and some key drivers of fragmentation, such as the bank-sovereign nexus, remain unsolved—not to mention a lingering risk of political fragmentation.

The second structural shift in patterns of intermediation, a global one, is linked to financial regulation. Tighter financial regulation is both increasingly affecting the behavior of supervised entities, and encouraging a parallel shift toward unregulated forms of finance. This dual process has repercussions for monetary policy implementation. It increases demand for safe short-term instruments to meet new regulatory requirements, such as the liquidity coverage ratio and margin requirements for derivatives. And it fosters the use of prime collateral for lenders in unregulated forms of finance as a form of self-protection. This is not necessarily undesirable: a higher share of nonbank financing is intended in the European Union as part of the capital markets union project and will make our financial system more resilient to shocks originating in the banking system.

But these shifts raise important questions for central banks’ operational frameworks. In my view the tail risk of spatial fragmentation is an argument for retaining certain elements of our crisis framework, in particular our “wider” collateral policy.

The same could be said for the fixed-rate full allotment mode of liquidity provision. In the new regulatory environment there may be
a need to accommodate a structural excess demand for liquid and safe financial claims. This may call for a framework where the central bank can separate the level of reserves from the level of policy rates on a permanent basis. Fixed-rate full allotment would support such a disentangling of interest rates from liquidity conditions.

Another question is how to adjust our framework in response to the growth of nonbank finance in Europe. A more market-based financial structure may make it easier for us to provide liquidity via outright purchases, which may in turn become more important as a regular instrument of policy if we operate in a framework of excess reserves. In that environment, the quantity of liquidity to be supplied could become a quasi-intermediate target almost on a par with the level of the policy rate. But then we could not rely solely on “passive” lending operations to deliver the right stance of policy: we would need a more active instrument to inject the “right” quantity of reserves.

But all this could have drawbacks as well. First, the monitoring costs and complexity of a wide-collateral and counterparty framework are higher. Second, a framework based on fixed-rate full allotment would to some extent weaken signals of liquidity and credit risk in the money market. Third, and most importantly, the responsibility for generating safe assets should not only fall on central banks, but on fiscal issuers—not necessarily by issuing more bonds, which may make them less safe, but by improving the credibility of their fiscal frameworks. In the euro area, common debt issuance could one day support this objective, if done in a way which does not undermine incentives for sound fiscal management.

II. The Effective Lower Bound on Interest Rates

Moving to the second challenge—the effective lower bound—recent evidence suggests that real neutral rates have fallen to very low levels, driven by both cyclical and structural forces. This challenge is common to advanced economies but it is more pronounced in the euro area than in the United States, given its markedly lower rate of potential output growth. In this context, all major central banks reduced interest rates to very low levels, thereby approaching the effective lower
bound on interest rates. They responded to this via different measures: providing forward guidance, launching large-scale purchases of public and private sector assets, and—in our case—by implementing a negative interest rate policy, which has in fact uncovered that the effective lower bound is lower than was previously thought.

These measures have been very effective in supporting output and inflation and anchoring medium-term price stability. However, they were taken on the implicit assumption that they would be transient, both because monetary stimulus would help counter the cyclical forces depressing the real equilibrium rate and because other economic policies would provide cyclical support and tackle the more structural drivers of low real rates. But if other economic policies do not in fact play this role, then we cannot exclude that the real equilibrium rate remains low. As such, we may see short-term rates being pushed to the effective lower bound more frequently in the event of macroeconomic shocks; and the stimulus provided by lowering interest rates to that level would be of course be much weaker.

For central banks to retain a handle on output and inflation, then, unconventional policies may have to be deployed more frequently. But this would come with at least three complications.

First is the question of the operational target. A target focused on short-term interest rates makes sense when this is the main policy variable, but if short-term rates are persistently pushed toward the lower bound, monetary policy has to focus on a wider constellation of rates across different maturities and asset classes. What then is its target? Central bankers currently offer quantity targets in these cases—a volume of assets to be bought per month—but price targets are only given in general terms, for instance “flattening the yield curve.” This is appropriate so long as balance sheet policies are temporary. It may not be in the long term, but moving to price targets may come at the expense of price discovery.

This links to the second complication: balance sheet policies can mitigate certain facets of the safe asset shortage, but they might exacerbate others. In particular, balance sheet policies have been stimulative by swapping central bank money for assets with duration and
credit risk. But over time, if monetary policy continues to withdraw long-dated safe collateral from the market, there is a risk that it has a countervailing effect—i.e., that it exacerbates safe asset hoarding at the long end of the yield curve. As various academics have documented, this could eventually put further downward pressure on real equilibrium rates.\(^2\)

Central banks have responded to this by re-lending their portfolios of securities. But this is only a temporary fix. The first best solution would clearly be for fiscal issuers to generate more safe assets under the conditions outlined above. If this does not happen, central banks may have to use their own balance sheets to satisfy safe asset demand, also at longer maturities.

A third complication is that extended use of unconventional measures could come with rising side effects, for instance on financial stability, financial intermediation and international spillovers. Thus far, the benefits of such measures have clearly outweighed their costs, but we cannot rule out a situation where the side effects are such that the negative consequences prevail. When discussing negative interest rates, I have called that tipping point the “economic” lower bound, in contrast to the “physical” lower bound, where large-scale substitution with cash materializes, a point which has clearly not been reached.\(^3\)

This could mean a more frequent use of microprudential and macroprudential measures to oppose the adverse financial stability effects of very low rates, also in countries affected by international spillovers. It could further accelerate shifts towards nonbank forms of intermediation with the consequences I described above. And it may mean moving toward a regime of greater international cooperation and policy alignment to avoid a situation where the effective lower bound leads to competitive devaluations.

### III. Conclusion

Today, we face an exceptional situation where the real equilibrium rate is very low. All the monetary policy measures we have taken were a necessary response to this. They stabilized the euro area economy and anchored medium-term price stability. But they were done on
the assumption that low real rates would be temporary, because other policies would act in their fields of responsibility.

The ECB’s operational framework and its monetary policy strategy are robust and sufficiently flexible to deal with the current challenges. We will fulfil the price stability mandate given to us by the Treaty. But if other actors do not take the necessary measures in their policy domains, we may need to dive deeper into our operational framework and strategy to do so.
Endnotes

1The real neutral rate points to the level of real interest rate where monetary policy is neither stimulating nor restraining economic growth.
