Dear members and friends,

During the Great Financial Crisis, the failure or impairment of a number of large, globally active financial institutions created enormous stress in the financial system and harmed the real economy.

The public sector interventions to restore financial stability at the time demonstrated the need to put in place measures to reduce the likelihood and severity of the failure of a global systemically important financial institution (G-SIFI).

To that effect, the official community developed new requirements for G-SIFIs, starting with global systemically important banks (G-SIBs).

To reduce the probability of failure of G-SIBs, the Basel Committee on Banking Supervision (BCBS) increased the going-concern loss absorbency of G-SIBs through an assessment methodology and related higher loss absorbency (HLA) requirement.

The **G-SIB methodology and associated buckets**

The BCBS published a G-SIB methodology in 2011, updating it in 2013 and then again in 2018.

The fundamental features of the methodology have remained unchanged over time:

- The methodology relies on an indicator-based quantitative approach that aims to capture the systemic importance of a G-SIB.

- The selected indicators reflect the size of the banks, their interconnectedness, the lack of readily available substitutes or financial...
institution infrastructure for the services they provide, their global (cross-jurisdictional) activity and their complexity.

These five categories of systemic importance receive equal weight in the computation of the numerical score that each bank in the sample receives in terms of its relative systemic importance.

- Banks whose score is above a minimum cutoff level set by the BCBS are classified as G-SIBs. The G-SIB score can fall into one of five buckets (see table). Attached to each bucket is an incremental HLA requirement, as explained below.

As the G-SIB assessment is conducted annually, a bank's score may move between buckets because of absolute or relative changes in its degree of systemic importance in relation to the other banks in the sample.

- The methodology permits supervisory judgment to justify divergence from the indicator-based measurement approach when classifying a bank as a G-SIB or allocating it to a specific bucket in the methodology.

However, the applicability of supervisory judgment is strictly controlled in the methodology, in terms of both its impact and the process for incorporating it.

The methodology, as updated in 2018, clarifies the disclosure requirements that national authorities would set for their G-SIBs, and especially for the 75 largest banks in the world.

The methodology, including the indicator-based measurement approach itself and the cutoff/threshold scores, is reviewed every three years. In the next review, due in 2021, the BCBS plans to pay particular attention to alternative methodologies for the substitutability category.

**HLA implications and capital instruments**

<table>
<thead>
<tr>
<th>Bucket</th>
<th>Score range</th>
<th>HLA requirement (Common Equity Tier 1 as a percentage of risk-weighted assets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>530-629</td>
<td>3.5%</td>
</tr>
<tr>
<td>4</td>
<td>430-529</td>
<td>2.5%</td>
</tr>
<tr>
<td>3</td>
<td>330-429</td>
<td>2.0%</td>
</tr>
<tr>
<td>2</td>
<td>230-329</td>
<td>1.5%</td>
</tr>
<tr>
<td>1</td>
<td>130-229</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

* All score ranges are equal in size. The minimum score for a bank to be classified as a G-SIB is 130.
G-SIBs are required to hold additional capital, the amount of which depends on their score. The additional capital requirements start at 1.0% of risk-weighted assets for the lowest bucket, up to a capital requirement of 3.5% of risk-weighted assets for the top (fifth) bucket.

The top (fifth) bucket is empty. However, it may become populated between reviews. Should this happen, a sixth bucket would be added to provide incentives for banks not to further increase their systemic importance.

The HLA requirement for each bucket has remained unchanged since the G-SIB methodology was first introduced.

These requirements were set on the basis of various analytical studies, attempting to balance the benefits of reducing the probability of a systemic financial crisis against the negative impact on credit flows of building up higher buffers.

The HLA requirement is to be met with Common Equity Tier 1 capital as defined by the Basel III framework, and it applies to the consolidated group, in line with the data collected for the G-SIB methodology.

At the same time, the HLA requirement, as set in the G-SIB methodology, is the minimum level, giving national jurisdictions the option to impose higher requirements on their banks.

As clarified in 2018, if a G-SIB breaches the HLA requirement, it is required to agree to a capital remediation plan to return to compliance over a time frame to be established by its supervisor.

Until it has completed that plan and returned to compliance, it is subject to the limitations on dividend payout defined by the conservation buffer bands and to other arrangements as required by the supervisor.

If a G-SIB progresses to a higher bucket, it is required to meet the additional requirement within 12 months.

Conversely, if the G-SIB score falls, resulting in a lower HLA requirement, the bank would be immediately released from its previous HLA requirement.

**Timeline**

The revised assessment methodology will take effect in 2021 (based on end-2020 data), and the resulting HLA requirement would be applied in January 2023.
FINMA is advising - cryptoassets should be “assigned a flat risk weight of 800% to cover market and credit risks”

Until the Basel Committee on Banking Supervision makes global recommendations, FINMA is advising financial players that cryptoassets should be assigned a flat risk weight of 800% to cover market and credit risks, regardless of whether the positions are held in the banking or trading book.

To read more: https://www.swissinfo.ch/eng/risk-weighting_swiss-regulator-gives-risk-guidance-on-crypto-trading/44518298
Distributed ledger technology and large value payments: a global game approach
Stephen Morris (Princeton University), Hyun Song Shin (Bank for International Settlements), Conference on Cryptocurrencies and Blockchains, University of Chicago Becker Friedman Institute.

Distributed ledger technology (DLT) and the payment system

Not only cryptocurrencies

Distributed ledger technology (DLT) in payment systems
- Permissioned versus permissionless blockchain
- Private versus public blockchain
- Hierarchical versus non-hierarchical blockchain

Validation of payments through decentralised consensus
- Agreement by supermajority (typically, 75-80 percent) is arbiter of truth
Two issues

- How to ensure confidentiality of payments?
- How to overcome need for credit to finance payments?

Issue 1: how to ensure confidentiality?

Open, permissionless systems (e.g., Bitcoin) have transactions visible to everyone, albeit with masked identities.

Confidentiality of payments with oversight point to private, hierarchical DLT systems:
  - **Private**: banks and payment firms are voting nodes
  - **Hierarchical**: central bank retains some role (e.g., as notary)

Issue 2: how to provide credit to finance payments?

Real time gross settlement (RTGS) systems have heavy credit needs:
  - Daily payments $\approx 100$ times the deposit balance held at central bank
  - Banks rely on incoming payments to finance outgoing payments
  - Bech and Garratt (JET 2003), Afonso and Shin (JMCB 2011)
Where are we now?

Several central banks have experimented with DLT payment systems

- Cash-in-advance payment systems with digital tokens redeemable at central bank
  - Wholesale central bank digital currency (CBDC)
- Periodic netting arrangements to reduce credit needed for payments
- Central bank retains some role

Assessment so far

- Technology works, but advantages over existing payment systems yet to be demonstrated

To read more:
https://www.bis.org/speeches/sp181109_slides.pdf
Growth in cryptocurrency scams

Numerous cryptocurrency scams have emerged since the rising price of some currencies, notably Bitcoin and Ethereum, made them highly lucrative.

These scams have become increasingly common over recent months, but the methods behind them are not new.

Some scammers pretend to be holding large sums of money that they will ‘giveaway’ once the victim has sent them a smaller amount of currency.

Others offer large amounts of a new cryptocurrency in exchange for a small amount of an established one.

Scams involving Initial Coin Offerings (ICOs), through which the public are invited to invest in a new currency, are particularly popular amongst criminal groups.

In 2018, the US Securities and Exchange Commission (SEC) filed at least 12 separate cases against organisations that had set up allegedly fraudulent ICOs, with tens of millions in purported profits.

This week, the BBC reported that scammers accessed Twitter accounts for high profile brands had been hijacked by fraudsters and used to promote fake giveaways of cryptocurrency.
Supervisory implications of rising similarity in banking

Introduction

Thank you very much for the invitation to speak at the "U.S. Banking Forum." It is a pleasure to be here to talk about the continued evolution of the U.S. financial sector.

Before proceeding, I will emphasize that the views expressed today are my own and do not necessarily reflect the views of the Federal Reserve Bank of New York or the Federal Reserve System.

It is now a decade since the financial crisis and the U.S. banking industry has made tremendous progress in terms of repairing its aggregate balance sheet and building greater resilience.

Capital ratios are higher, liquidity pools are deeper, and we've seen fundamental improvements in risk management and governance.

While there are still areas for continued progress, all of this should help financial firms provide critical intermediation services across a range of macroeconomic and financial market conditions.

This progress reflects both the recognition by financial institutions of the need for greater resiliency in order to insulate themselves from shocks and a stronger, more comprehensive, forward-looking regulatory and supervisory framework.

Over the same period, we've seen continued evolution of the underlying business models for some of the largest U.S. financial firms in response to external forces.
Firms are navigating statutory changes and a suite of new regulations that are still evolving and being implemented; responding to investor pressures for higher returns in a rising rate and more competitive environment; and seeking to capitalize on fundamental technological advances, while managing the risks associated with cybersecurity and greater competition from potentially disruptive new entrants.

**One recent observation** is that the largest firms in the U.S. appear to be growing increasingly similar in terms of their underlying business models and strategies. This has implications for balance sheet structure, earnings profile, and organizational structure.

For example, some firms traditionally focused on capital market activities, are shifting into lending activities, while other more traditional banks, are expanding capital markets activities.

In both cases, this serves to diversify the individual firms, while also making them more similar in terms of the business strategies they pursue, the products they offer, and the customers they serve.

If firms are responding to the same exogenous forces, this might not be surprising.

Indeed, similar observations were made in the late 1990s as the deregulatory forces that culminated in the Gramm-Leach-Bliley Act (GLBA) led to predictions of a few "financial supermarkets" that would offer the full range of financial services to all customers.

More recently, industry analysts and commenters have pointed to the range of capital and liquidity regulations that may be pushing firms toward the same target state business model where large firms provide a wider range of financial services.

If true, an obvious follow-up question is whether this should be a concern from a supervisory and regulatory perspective.

Today, I will discuss the premise that large banks in the U.S. have indeed become more similar and then consider some reasons why this might be a topic of interest for the official sector.

I can think of several compelling microprudential and macroprudential reasons why this would be the case: the need for an appropriate risk management framework that is commensurate with evolving risks; the need for supervisors to ensure that our assessments are proactive and flexible enough to evaluate evolving firms; the potential for similar firms to
become "systemic as a herd," where a given shock leads to correlated responses and large-scale disruption in the provision of financial services; and the potential for firms to move away from areas of comparative advantage, which could diminish the overall efficacy of the financial sector.

I'll conclude with some implications for our supervisory regime.

**Environmental Context**

The performance of financial firms in the decade since the financial crisis has been influenced by a broad range of external forces.

I'll focus on three factors impacting how financial services are provided and their impact on large firm similarity: the regulatory response to the financial crisis, the interest rate environment, and technological innovation.

**Regulation**

The U.S. official sector has taken meaningful steps since the financial crisis to promote greater resiliency and stronger risk management at the largest firms.

This includes: a greater focus on both the quantity and quality of loss-absorbing capital; standards that focus on both short-term and long-term liquidity management and positions; activity restrictions; enhanced risk management standards and expectations; and new resolution and recovery regimes.

I will focus on the capital side, where the largest banks face a number of regulatory standards and supervisory expectations that impact both capital positions and the firms' capital planning process.

The standards include point-in-time regulations that target a simple leverage ratio and risk-based ratios. They also include forward-looking standards for both types of ratios that reflect estimates of potential capital needs across a range of plausible, but severe macroeconomic and financial conditions.

These forward-looking estimates that result from our Comprehensive Capital Analysis and Review (CCAR) program are now an integral, and some would say leading, part of the post-crisis capital regime.
The fact that firms must manage against multiple capital constraints has both intended and potentially unintended consequences. On the intentional side, this framework enhances robustness.

Risk assessment approaches and models are imperfect and a capital regime that relies on a range of assessment techniques can increase robustness and mitigate the inherent uncertainty around risk measurement. It also provides a check against potential regulatory arbitrage.

A potential unintended consequence is pressure toward greater homogeneity of the largest banks. Think about a simple example of a firm with a low-risk balance sheet where the leverage ratio currently is binding, but the risk-based capital ratio is not.

This firm may have incentives to shift out of low-risk assets into higher-risk assets in order to optimize its balance sheet and the corresponding risk-adjusted return on equity.

A key point is that different firms face different marginal capital requirements for holding the same asset, depending on the other attributes of their balance sheet and business model.

This type of response can impact both the size and the composition of a bank’s balance sheet. Of course, the world is much more complicated than this simple example.

Optimizing firms likely consider a number of capital factors such as the current point-in-time ratios, current post-stress ratios, and the potential impact of both types of ratios in the future, as well as other balance sheet influences such as liquidity ratios and the recovery and resolution regime.

Recent academic work has begun to explore this topic and I think it is an important area where regulators and supervisors concerned with optimal regulatory design can learn from the theoretical literature.

Research suggests that in a world with multiple capital constraints, e.g., a leverage ratio and a risk-based capital, banks face incentives to do the same thing rather than specializing in areas where they each have a natural competitive advantage.

This type of academic work provides a conceptual framework for understanding how optimizing behavior against multiple constraints might lead banks to pursue similar strategies and become more homogenous over time.
Interest Rates

A second dominant theme over the post-crisis period has been unconventional monetary policy, both in the U.S. and around the world, which has direct implications for the profitability and returns of U.S. commercial banks.

The low rate environment experienced through 2015, for example, constrained bank earnings, particularly net interest income earned through traditional banking activities over this period.

More recently, current and expected future returns on equity for large banks have improved, in part reflecting higher interest rates and net interest margins, as well as other factors such as lower tax rates and expectations for a stronger economy.

Despite recent improvements, earnings pressures over most of the post-crisis period have pushed banks to reassess business strategies.

For example, some banks attempted to enhance returns by building capacity and reach in new businesses; some looked to benefit from scale and scope activities by leveraging existing infrastructure, technology, and processes to offer a broader set of services at lower cost; some looked to reduce risk through greater diversification, and others pulled back from activities outside of their core focus.

It is unclear what the net impact will be, but if all firms pursue the same strategies in search of higher risk-adjusted returns, greater similarity could result. This pressure is potentially stronger now than in the past due to the highly competitive nature of banking and this is an area for further study.

Technology

A third theme is the emergence of "fintech", which I think of as the intersection between technological innovation and the provision of financial services.

While innovation has always been a competitive driver in banking, there is a sense that both the pace of change and the potential impact have become more pronounced.

As prices for technology services and capacity continue to fall and technological opportunities expand, more firms are able to adopt and leverage the latest technological breakthrough.
Scale is likely to remain a relevant factor in the deployment of the latest technology, but, at least among the largest firms, the playing field may be leveling as firms have the opportunity to benefit from direct investments, consultants, and third-party vendors offering the latest services. If the largest financial firms are responding to the same technological forces and pursuing the same opportunities, one might expect their resultant strategic choices to contribute to greater similarity over time.

Again, this is an empirical question that deserves further inquiry.

**Next Steps**

An important next step is to look at the data to assess whether recent industry trends are consistent with the premise that large banks are becoming more similar.

We examined a range of balance sheet and income statement items, market indicators, and organizational structure data to draw some preliminary conclusions.

The results, reported in the appendix, are generally supportive of the notion of greater homogeneity among the largest banks, but a more rigorous assessment of these preliminary conclusions would be a fruitful area of investigation.

**Why Do We Care?**

I now turn to a final question - does this matter for supervisors and regulators? I think it does. I will consider four potential reasons why this shift is relevant for the official sector's concern for safety and soundness and efficient financial intermediation: a firm's risk management approach, the evolution of supervisory focus, the development of macroprudential risks, and allocative efficiency of financial services.

I'll begin with our core microprudential focus on ensuring that banks develop and implement the appropriate risk management infrastructure for their evolving risks. While this is more linked to the changes in business models than greater similarity, the underlying drivers are the same.

As banks respond to environmental factors by expanding into new activities or shifting their strategic focus, they naturally face new risks and must adapt their risk management infrastructures along with their evolving business models.
This entails ensuring the appropriate level of expertise about the new businesses; assessing that all relevant risks are identified, monitored, measured, and managed for each business line and the firm as a whole; and establishing the appropriate interaction with the enterprise risk management functions and Boards of Directors.

These are core parts of supervisory expectations for traditional risk management and banks need to ensure that they are applied appropriately as they evolve.

Moreover, expansion into new activities can bring entirely new risks beyond the direct risks of each specific business. For example, a firm that expands by offering a broader set of products to its existing base of customers.

This has the potential to introduce greater correlation of business line results and a different type of shock if a financial firm potentially loses multiple revenue streams should a single customer face distress. Alternatively, a firm might be inclined to use one business line to cross-subsidize another, which makes measuring and managing risks and allocating capital more difficult from a business line perspective.

In both cases, the potential risks would need to be managed at the enterprise level to reflect these cross-business linkages.

A second implication is the need for the supervisory community to be responsive to the evolution of firms' strategies and business models. As firms evolve and pursue new strategies, supervisors need to understand those changes and assess firms accordingly.

We must constantly evaluate the strategic focus of the firms we supervise and assess whether our approach and perspective are appropriate for the new activities.

In a world with a core of diversified firms that are more similar, for example, cross-firm exams and horizontal analysis increase in value and supervisors might require broader skills.

Moving beyond individual firms, there is the potential for microprudential risks to transform into macroprudential ones. If firms expand, diversify and become more similar, each might become safer individually.

The industry as a whole, however, might not be any safer or more resilient. If all firms are effectively the same, they could become "systemic as a herd" and susceptible to the same shocks in a way that leaves the aggregate provision of financial services more volatile.
The propagation mechanisms for an industry with a set of similar firms with a wider range of activities may be very different from one where firm heterogeneity can offset and smooth the impact of shocks.

This suggests that supervisors and regulators should be concerned not just with the firm as an entity, but with the industry as a portfolio of firms where aggregate outcomes reflect both each firm's individual contribution and correlation properties across firms.

Finally, supervisors are concerned about the efficient provision of financial services and the ability of the financial industry to support the real economy.

If firms' mix of activities is overly determined by the regulatory environment, firms will have incentives to expand into activities where they do not have a comparative advantage.

As a result, the potential gains of specialization would be lost. This could make the provision of financial services less efficient overall.

Judging the cumulative impact of these changes in a comprehensive way that includes an assessment of costs, benefits, and risks is challenging, but seems an important goal for optimal policy design.

**Conclusion**

A fundamental challenge for effective supervision is that the landscape is constantly evolving and adapting in response to a wide range of regulatory, financial, and technological forces.

This type of dynamism is normal and inherently productive for the industry as firms continue to optimize in order to serve customers efficiently and satisfy investors, but it does raise issues that supervisors must consider.

As I've discussed, one recent type of evolution is the trend toward greater similarity of the largest financial firms in the U.S. In response, supervisors and regulators must continue their focus on taking a broad perspective on supervision and risks.

It is not enough to look at individual business lines or products, but we should continue to focus on enterprise risk management that reflects each business and the interdependencies among them. Moreover, supervisors should be dynamic and continue to evolve as the supervised firms do.
Finally, supervisors should continue to develop an industry-wide, macroprudential perspective to understand the impact of the continuing evolution of the U.S. financial industry.

To do this, supervisors need to continue to leverage our cross-firm, horizontal perspective to better understand how the industry is evolving and what it might mean for our objectives around safety and soundness of individual firms and the efficient provision of financial services for the economy as whole.
Beginning Stress Testing’s New Chapter
Randal K. Quarles, Vice Chairman for Supervision
"An International Perspective on the Future of Bank Stress Testing"

Professor Scott, and our hosts from Harvard and the Program on International Financial Systems, thank you for the chance to participate in today's meeting.

Looking around the room, I see a mix of past and current colleagues, from academics, to supervisors and central bankers, to researchers and practitioners in industry.

All of you have seen, felt, and lived different aspects of the transition to the post-crisis regulatory framework, and I am grateful to hear your perspectives on such a critical aspect of it.

In the depths of the financial crisis, the first regulatory stress tests were designed under intense scrutiny with high-stakes consequences.

Their contribution--an independent public view of the capital adequacy of the largest firms--helped reinforce the banking system at a critical juncture.

Since then, stress testing has meaningfully increased the post-stress resiliency of large financial institutions, and become a critical tool in keeping the system strong.

Those accomplishments are real, and we should aim to do more than simply preserve them. Now is a prudent time to consolidate the gains we have made, and to promote the efficiency and transparency of our processes.

Today, I will review some of our efforts along those lines, focusing on proposed changes to our stress-testing program.

These changes, which I described in more detail in remarks last week, are intended to improve the program, maintaining its dynamism and flexibility.
while providing adequate notice to regulated firms, without altering materially the stringency of the tests or the overall level of capital in the system.

I share these views with a deep appreciation of the decades of international experience represented in this room.

The crisis came with a reminder that the financial system is global, that risks in one country can quickly spread to another, and that in keeping the system and the economy safe, we have no choice but to work together.

I look forward to hearing your thoughts on the changes I outline, and on how to improve our stress testing processes in the years ahead.

**Stress Capital Buffer**

Many of you are familiar with the Federal Reserve's proposed stress capital buffer (SCB), which would replace the current fixed buffer requirement of 2.5 percent of risk-weighted assets with one based on each firm's stress test results.

I believe the proposal represents an important milestone in crafting an integrated capital regime, and in keeping with its importance, we have received extensive and thoughtful public comments, identifying elements of it that could benefit from further refinement.

I described several of these elements last week, including my views on some areas which I believe we should revisit: improving measurement of risks in the trading book; encouraging less sticky forms of capital distribution without requiring dividend pre-funding; and reevaluating the interaction of the capital buffer with capital distributions.

Today, I want to highlight three elements in particular.

Foremost among these is the volatility of stress test results. Some volatility in annual results is necessary to preserve the dynamism of the stress test, and to reflect changes in macroeconomic conditions, salient economic risks, and the composition of firm balance sheets.

However, when the largest banks in the system are fully meeting their capital requirements, a highly variable capital requirement from year to year can present a significant management challenge. I believe there is an important balance to strike in this area, which will let us preserve dynamism while reducing volatility, and we plan to seek comment on a relevant proposal in the not-too-distant future.
The second is the sequencing of stress test results with capital plan submissions. Currently, and under the SCB proposal, a firm must decide whether to increase or decrease its planned dividends and share repurchases for the upcoming year without knowledge of a key constraint: the results of the stress test.

Initially, this phasing reflected the view that firms should think rigorously about their capital uses and needs, rather than relying primarily on the results of the supervisory stress test to guide those plans.

However, now that we all have several years’ experience with this system, firms have told us that they would be able to engage in more thoughtful capital planning if they had knowledge of that year’s stress test results before finalizing their distribution plans for the upcoming year.

I am sympathetic to their concerns, and will ask the Board to adjust the operation of the rule, so that firms know their SCB before they decide on their planned distributions for the coming year.

Of course, we expect firms to continue to maintain robust stress testing practices and use those results to inform their capital distribution plans, and we will continue to use the supervisory process to reinforce this expectation.

The third is the post-stress leverage requirement. As the Federal Reserve has long maintained, leverage requirements are intended to serve as a backstop to the risk-based capital requirements. By definition, they are not intended to be risk-sensitive.

Thus, I am concerned that explicitly assigning a leverage buffer requirement to a firm on the basis of risk-sensitive post-stress estimates runs afoul of the intellectual underpinnings of the leverage ratio, and I would advocate removing this element of the stress capital buffer regime.

Of course, leverage ratios, including the enhanced supplementary leverage requirements, would remain a critical part of our regulatory capital regime, and we will maintain the supervisory expectation that firms have sufficient capital to meet all minimum regulatory requirements.

To give these issues the careful consideration they deserve, I expect we will adopt a final rule in the near future, settling the basic SCB framework while re-proposing certain elements. I expect that the first SCB would not go into effect before 2020, and that CCAR will remain in place in 2019 for firms with over $250 billion in assets or that are otherwise complex.
However, we will consider whether we can move forward with any aspects of the SCB proposal for CCAR 2019, such as assumptions related to balance sheet growth, and I will ask the Board to exempt firms with less than $250 billion in assets from the CCAR quantitative assessment and supervisory stress testing in 2019.

**Transparency**

In the meantime, several initiatives are also underway to provide additional transparency into stress testing.

I expect you will soon see the Federal Reserve issue a policy statement describing governing principles around the supervisory stress testing process—and with it, a commitment to disclosing additional detail about supervisory stress test models and results, along with portfolios of hypothetical loans and associated loss rates.

I expect we will begin providing some of this additional detail starting in early 2019. I also expect the Board will seek comment on the advisability of, and possible approaches to, gathering public input on scenarios and salient risks facing the banking system each year.

Transparency matters not only because it provides additional due process to affected participants; it also creates an opportunity for broader, more insightful comments from the public. As a result, it can allow us to be more nimble and better informed in our scenario design.

However, we want to maintain incentives for firms to conduct their own stress tests rigorously and thoughtfully, and avoid the risk that firms will use this new information to engage in transactions that are solely designed to reduce losses in the test without reducing actual risk.

Firms have indicated that additional disclosure about models would not affect their own stress tests.

We expect them to make good on that representation, as the Federal Reserve's stress test is not, and cannot be, a full picture of a firm's resiliency in light of its idiosyncratic risks.

We are confident that we can address these concerns through the regular examination process, by closely monitoring changes in firms' portfolios and ensuring sufficient capital, controls, and governance in light of the risk characteristics of their activities.
Qualitative Objection

I also want to reiterate a point regarding the role of the qualitative objection. The Federal Reserve eliminated this element of CCAR for large and noncomplex firms in 2017, in part because of improvements in risk management at those firms.

In my view, the time has come to normalize the CCAR qualitative assessment by removing the public objection tool, and continuing to evaluate firms' stress testing practices through normal supervision.

While supervisory assessments would continue to center on a firm's capital plan submissions, examination work would continue on a year-round basis, taking into account the firm's management of other financial risks, and culminating in a rating of the firm's capital position and planning.

Firms with deficient practices would receive supervisory findings through the examination process, and would be at risk of a ratings downgrade or enforcement action if those deficiencies were sufficiently material.

Conclusion

These changes are aimed at preserving the foundation laid over nearly a decade of stress testing experience, including by many of the people in this room.

Our goal is to bolster the program's credibility by increasing its transparency, simplicity, and stability, while maintaining the strength of the supervisory and internal stress testing elements that are central to the program today.

These adjustments will be coupled with our continued commitment to strong supervision, and our expectation that financial institutions manage their risks and hold sufficient capital to continue operations through times of stress. I look forward to hearing your insights into these changes, and I thank you for your time.
New loan provisioning standards and procyclicality
Panel remarks by Mr Claudio Borio, Head of the Monetary and Economic Department of the BIS, at the High-level conference on "The new bank provisioning standards: implementation challenges and financial stability implications".

Abstract

The adoption of the new expected credit loss provisioning standard - IFRS 9 - is a landmark.

What are its implications for financial stability? While the new standard is likely to mitigate the procyclicality of the financial system to some extent relative to the previous, incurred loss model, it falls short by a significant margin of what one would like from a financial stability perspective.

This points to broader inevitable tensions between accounting and prudential regulation, and calls for the active use of backstops (or so-called prudential filters) to preserve stability.

Experience with the operation of the alternative dynamic (countercyclical) credit loss provisioning scheme adopted by the Bank of Spain points to some strengths and weaknesses in the broader macroprudential frameworks in which such arrangements are embedded.

Full speech

It is a great pleasure for me to participate in this panel. I always look forward to coming to Spain, and to the Bank of Spain in particular - not just because I can see again so many friends, but because it brings back fond memories of my first job outside academia.

My very first day of employment, at the OECD, was actually here in Madrid, when I joined my new bosses on an economic mission to the country, without even passing through head office! But, much as I would like to
continue, let me stop reminiscing and turn to the topic of the panel: loan loss provisions, procyclicality and financial stability.

The adoption of the new expected credit loss (ECL) provisioning standard - IFRS 9 - is a landmark. It represents the end-point of a long - in some respects extraordinary - journey that started around 2000, with the emergence of more systematic concerns about the "procyclicality" of the financial system.

It was these concerns that prompted the development of the conceptual underpinnings of macroprudential frameworks and the subsequent implementation of those frameworks post-Great Financial Crisis (GFC).

To be sure, the adoption of the new accounting standard was not intended to address procyclicality per se; rather, it aimed to align the approach with the more forward-looking nature of fair value accounting generally.

Even so, the change did follow an explicit request by the G20 and the Financial Stability Board in the context of how to deal with procyclicality.

The Bank of Spain has been a pioneer in this area, with its early adoption in 2003 of countercyclical (or dynamic) provisions (Saurina and Trucharte (2017)).

In what follows, I would like to broaden the focus a bit and address three questions.

First, how far do the new provisioning standards address the procyclicality in credit loss provisioning?

Second, what does this tell us about the tensions between accounting and prudential regulation and about potential remedies?

And finally, have macroprudential frameworks fulfilled the expectations of their advocates, of whom I have been one (Borio (2003))?

Let me anticipate the three answers.

First, the new standards are likely to mitigate procyclicality to some extent relative to the previous, incurred loss model, but from a financial stability perspective they fall short by a significant margin of what one would like to see.
Second, the tensions between accounting and prudential regulation are inevitable, calling for the active use of backstops (or so-called prudential filters).

Finally, we need to be realistic about what macroprudential frameworks can do on their own: they are more effective in strengthening the financial system's resilience than in taming procyclicality - or the financial cycle.

Let me take each point in turn.

I. New ECL provisioning standards and procyclicality

To understand how far the new ECL provisioning standard addresses procyclicality, it is useful to say a few words about the nature of the problem and how the Bank of Spain's dynamic provisions tackled it. One can then compare the new standard with that benchmark.

Procyclicality denotes the financial system's tendency to generate financial booms and busts and, more specifically, those mechanisms that feed onto themselves to amplify financial fluctuations (Borio et al (2001)).

At the core of those mechanisms is the self-reinforcing interaction between funding constraints, asset prices and risk-taking.

For instance, during expansions funding constraints become looser, asset prices soar, risk-taking increases, triggering a vicious circle until the process becomes unsustainable and, at some point, that risk-taking reverses. As a result, booms generate busts.

Procyclicality arises for two reasons.

One is that incentives to take on risk are procyclical. Think, for instance, of herding, just to mention one.

The other is that, above all, measures of risk are procyclical, because the inputs are.

During booms, asset prices soar, inflating collateral values, credit spreads narrow, volatility declines (it is inversely related to asset prices), correlations decline, reducing the volatility of portfolio returns and profits and free cash flows increase. During busts, these relationships reverse.

Put differently, procyclicality fundamentally changes the conception of risk (Crockett (2001)).
Risk is not low in booms and high in busts - the previous conception; but it builds up in booms and materialises in busts. The bust is a consequence of the boom that precedes it.

Of course, some procyclicality is inevitable and inherent in economic activity. But, unless restrained, procyclicality can give rise to outsize financial fluctuations, or financial cycles, that are typically at the heart of financial instability.

The previous incurred loss model of credit provisioning - IAS 39 - was clearly procyclical (Borio and Lowe (2001)).

In general, provisions could be made only when a loss impairment event or events had taken place.

In the former terminology, they could be taken only when risk materialised.

As a result, losses over the life of the credit exposure were underestimated during the boom. The scheme did not recognise those embedded in the portfolio.

The Bank of Spain's dynamic provisioning scheme tackled this problem head-on (Saurina and Trucharte (2017)).

To simplify: at inception, the provisions on a loan would be equal to the average loss made on similar loans during previous recessions. Those provisions would be released automatically as losses materialised.

One could, of course, take issue with some aspects of the scheme. For instance, it did not account explicitly for loan pricing, which should already incorporate an expected-loss element (Borio and Lowe (2001)). And there was some inevitable arbitrariness in the selection of benchmarks for the size of the provisions.

In fact, the chosen recession year - 1993 - turned out to underestimate by a very large margin the losses during the GFC. But the scheme had the great merit of being truly countercyclical, of being simple and, in particular, of having an automatic release mechanism.

The importance of this last feature should not be underestimated.

One should recall that it has proved exceedingly difficult to design a similar automatic release trigger for the countercyclical capital buffer.
I was intimately involved in the process and, believe me, we did try! In the end, the Basel Committee on Banking Supervision could only produce general guidelines. This left plenty of room for discretion, making life harder for supervisors.

Against this benchmark, the new ECL forward-looking scheme falls short by a significant margin. Granted, the scheme correctly seeks to identify the losses embedded in the portfolio in good times: this is an important step forward. But its impact on procyclicality is much weaker.

For one, the scheme leaves ample room for firms’ discretion. They will still have a strong incentive to underprovision, especially in good times, and it will not be easy for auditors to correct this - just as it has not been easy for prudential authorities to address the biases embedded in banks' internal risk models.

In addition, and above all, the scheme remains point-in-time. That is, it does not have the in-built look-back, mean-reverting element at the core of the Bank of Spain's dynamic provisioning scheme.

Firms are simply asked to forecast losses over a particular horizon given available information, without the restriction of using the average or stress loss incurred over past cycles. As a result, provisions are still subject to the typically strong procyclicality of risk assessments.

Thus, compared with the incurred loss standard, the most we can expect from the new one is that it will bring forward some of the provisioning. Work done at the BIS, published in our Quarterly Review, confirms this intuition (Cohen and Edwards (2017)).

Better loss recognition in good times is very welcome. And if the scheme is properly implemented, recognition of higher losses in good times means recognition of smaller losses in bad times, ie less procyclicality.

The extent, though, is to be seen and deserves close study. It will clearly depend, among other things, on the implementation details, not least the models used to forecast losses.

II. Accounting and prudential regulation: uncomfortable bedfellows

This naturally takes me to my second point - the uneasy relationship between accounting, on the one hand, and prudential regulation, on the other.
We can call them two "uncomfortable bedfellows" (Borio and Tsatsaronis (2004)). And in fact, the same is true of the relationship between accounting and sound risk management (Borio and Tsatsaronis (2006)).

The tensions between accounting and prudential regulation started to become irreconcilable once accounting shifted away from the "prudence" principle in order to provide a "true and fair" picture of a firm's condition.

We could have a long discussion about what "true and fair" really means and about how far the principles really do that.

Think, for instance, of the well known debate around "income smoothing" in the context of dynamic provisions (Borio and Lowe (2001)). But there is little doubt that accounting standards are not always consistent with the requirements of financial stability.

The incurred loss model example, and the acute procyclicality induced by fair value accounting more generally, are testimony to this.

A similar tension arises between accounting and sound risk management. Let me just quote from a famous firm's internal risk management manual:

"Reported earnings follow the rules and principles of accounting. The results do not always create measures consistent with underlying economics.

However, corporate management's performance is generally measured by accounting income, not underlying economics. Risk management strategies are therefore directed at accounting rather than economic performance."

This quotation happens to be from Enron's operating manual - and we all know what happened to that firm! But I suspect it could equally come from that of any other firm.

Whether we like it or not, accounting drives incentives and hence behaviour - in fact, it is designed to do precisely that. A kind of Heisenberg's uncertainty principle is at work here: how we measure valuations ends up influencing valuations, as agents respond to them - again, think of procyclicality.

It is here that micro meets macro: what firms take as given in the small, such as market prices, is influenced by their collective behaviour.
Measurement cannot be neutral: it affects what is being measured (Borio and Tsatsaronis (2006)). Accounting doesn't just record facts, it alters those facts.

How can the tension between accounting and prudential regulation best be managed? I think it would be unrealistic to have accounting standard setters take financial stability into account: that is not their objective. Nor do I think they could be persuaded to re-adopt the principle of prudence.

Except where bank supervisors have authority over accounting standards for banks and are prepared to override accounting standard setters, this is not a feasible option. That, of course, is what the Bank of Spain did with its dynamic provisions.

And it is what a number of prudential authorities in Asia and Latin America are still doing (Restoy and Zamil (2017)). The cost of doing so, however, is to clash head-on with the accounting profession, as it would get in the way of what they want and what they are mandated to achieve.

Short of that, prudential authorities have three options.

One is to argue with accounting standard setters on their own terms. Forward-looking provisioning principles are one such example. But, as noted, they do not go far enough from a financial stability perspective.

A second option is to persuade accounting authorities to require that firms disclose more risk information, notably information about the degree of uncertainty surrounding valuations.

I argued for this many years ago (Borio and Tsatsaronis (2004, 2006)), and I am glad to see that standards have moved in that direction, in particular IFRS 7.

But again, this is not enough for financial stability: the investors and depositors that should enforce market discipline are subject to the same measurement and incentive problems of the institutions they are supposed to restrain.

A third option is to adopt prudential backstops or filters to offset accounting valuations - a practice that has been in place for some time now.

These measures can compensate for some of the shortcomings of accounting provisions by adjusting regulatory capital, possibly complemented with restrictions on dividend payments. To my mind, these filters are indeed indispensable.
The real issue is how to calibrate and structure them. There is a wide range of possibilities, from simply deriving adjustments based on information that contains a mean-reverting element, such as financial cycle indicators, to adopting the same type of adjustment embedded in the Bank of Spain's dynamic provisions - in effect, a simple through-the-cycle filter. With colleagues, we plan to look into this issue in more depth.

The advantage of such prudential filters is that they decouple accounting from regulatory valuations, allowing each authority to pursue its preferred objective (Borio and Tsatsaronis (2004)).

This advantage should not be underestimated. The disadvantage is the other side of the coin, ie the filters are less effective in enforcing market discipline on banks than changing accounting standards themselves. This is because they do not affect the bottom line earnings figures analysts and markets focus on.

III. Macroprudential frameworks

Finally, some reflections on macroprudential frameworks, of which backstops for ECLs are just one element.

As an early strong advocate of such frameworks, I was very happy when they were adopted following the GFC. This has represented real progress.

But now the pendulum may have swung too far. There is a widespread belief that macroprudential frameworks are the solution to procyclicality. My personal assessment is that they are part of the solution, but not the whole solution.

They unquestionably strengthen the financial system's resilience, as they reinforce its defences to face financial cycle busts. But they are less effective in restraining financial booms in the first place.

There is considerable evidence to that effect. In particular, the active deployment of macroprudential tools in some countries, mainly emerging market economies, has not prevented the emergence of the familiar signs of the build-up of dangerous financial imbalances - typically, cumulative credit growth and asset price increases, notably property prices, in excess of historical benchmarks.

These elements are the basis of the early warning indicators that worked pretty well pre-GFC (Borio and Drehmann (2009)). The Spanish experience with dynamic provisions confirms this assessment: according to the Bank of Spain's own analysis, dynamic provisions have not succeeded in restraining
credit growth significantly (Saurina and Trucharte (2017)). Admittedly, other measures, such as maximum loan-to-value ratios and debt service-to-income ratios, have a larger impact. But this does not alter the overall conclusion.

In my view, tackling the financial cycle requires a more holistic policy framework, which in addition to sound prudential standards also involves monetary and fiscal policy, and even structural policies. This is what we at the BIS call a "macro-financial stability framework".

We discussed these issues at some length in the latest BIS Annual Economic Report (BIS (2018)), and I examined them further in my remarks at our last Annual General Meeting (Borio (2018)).

In other words, there is a material risk that unrealistic expectations of what macroprudential frameworks can deliver on their own stands in the way of desirable adjustments in monetary and fiscal policies. I think we have seen signs of this danger materialising.

Of course, my assessment could be overly pessimistic. Only time will tell. Let’s hope it will not take another crisis to find out.
Introduction

Good afternoon, ladies and gentlemen. Let me salute Katsunori Mikuniya, President and Chair of the Executive Council of the International Association of Deposit Insurers (IADI) and David Walker, IADI Secretary General. Allow me to start by welcoming you all to Basel.

As you know, the BIS hosts the IADI Secretariat, as well as the secretariats of the Basel Committee on Banking Supervision, the Committee on Payments and Market Infrastructure, the International Association of Insurance Supervisors and the Financial Stability Board.

This allows for close interaction among experts working in different areas of regulation and financial stability, forming what is now known as the Basel Process.

Regulators have devoted much of the past 10 years to incorporating the lessons learned from the recent financial crises into new regulatory frameworks.

While the objectives of specific regulatory reforms differ, the overarching aim is to ensure trust in the financial system.

In my talk today, I would like to discuss the channels through which effective deposit insurance schemes support trust.

In doing so, I will revisit the specific goals of deposit insurance, and the benefits of reaching these goals. But I will also sketch inherent limitations and trade-offs. One well known trade-off stems from moral hazard, or weakening of market discipline. It is
less appreciated that deposit insurance may actually attenuate some aspects of moral hazard.

Deposit insurance is an important pillar of trust. Yet it is most effective when it stands alongside other pillars of trust, such as banking supervision, resolution arrangements and ultimately the lender of last resort function of central banks.

Current discussion on the establishment of a common deposit insurance scheme for the euro area - the European Deposit Insurance Scheme - provides an excellent opportunity to reassess the whole regulatory architecture. And the lessons from this reassessment are likely to be instructive beyond the euro area.

Effective regulation not only incorporates lessons from the past, but also adapts to structural changes in the financial system. Thus, looking ahead, deposit insurance needs to be reviewed continuously. Improvisation in the midst of a crisis can be a recipe for disaster.

**Review of the basics**

So let me start with a very basic question: what makes an insurance scheme effective in protecting retail depositors? Such schemes work if they are credible in assuring instant liquidity and assisting those who lack the time and expertise to monitor banks.

Successful schemes are credible at all times. They serve to prevent self-fulfilling retail runs on otherwise viable banks. And they protect the depositors of a bank that fails for fundamental reasons.

But the pot of insured deposits is never backed 100% by cash in a vault. Thus, trust also requires a credible backstop by the government, beyond the funds readily available to the deposit insurance scheme.

The importance of such a backstop became clear during the Great Financial Crisis, when public support of the banking system included the expansion of retail deposit insurance - for instance, from $100,000 to $250,000 in the United States.

In other countries, such as Germany, all retail deposits were insured during the crisis. This expansion helped avoid a meltdown of the financial system and - even though the economic downturn was steep - prevented a collapse in consumption. It is in this sense that deposit insurance revealed its value during the crisis.
While deposit insurance schemes can ward off retail bank runs, they do not rule out runs on wholesale markets.

During normal times, insurance schemes should not get in the way of a wholesale run on an individual institution, as this is part of healthy market discipline. But as the Great Financial Crisis worsened, the drying-up of wholesale funding markets put the entire system at risk.

This forced many central banks to step in as lenders of last resort. At the same time, governments extended guarantees to wholesale funding and, in the United States, also to money market mutual funds.

Official liquidity assistance has evolved recently. As financial intermediation has shifted outside the banking sector, it has become important to carefully reassess the provision of liquidity support. Indeed, some post-crisis quantitative easing schemes targeted specific markets in distress.

More structurally, some central banks expanded the scope of their lender of last resort coverage.

The Bank of England, for example, started providing liquidity support to selected broker-dealers and central counterparties.1 Similar arrangements are in place at the Bank of Japan.

A credible backstop to systemic liquidity issues supports banks and, ultimately, their depositors.

But we need to be careful when drawing parallels between deposit insurance schemes and the lender of last resort. Granted, both sustain trust in the financial system by reducing the risk of self-fulfilling runs. Even so, there are important differences. In principle, a lender of last resort seeks to address liquidity strains at viable institutions.

This is an inherently difficult decision in the midst of a crisis, and needs to be at the central bank’s discretion.

Deposit insurance, by contrast, protects depositors of failing banks. And it is the rules-based nature of deposit insurance schemes that contains uncertainty. As such, last-resort lending and deposit insurance complement each other.

Financial regulation: synergies with deposit insurance Crises - except for those resulting from self-fulfilling runs - are not like meteor strikes. They
stem from a gradual build-up of vulnerabilities. Here, prudential regulation steps in to ensure that deposit insurance schemes are called on only rarely.

The post-crisis regulatory reforms have made the banking sector stronger, which ultimately serves also to protect retail deposits. Regulatory buffers are part of both capital and liquidity regulation under Basel III.

The countercyclical capital buffer contributes to greater loss-absorbing capacity in the case of a systemic event. The capital conservation buffer and global systemically important bank surcharges are there to absorb the losses of going concerns. And the Liquidity Coverage Ratio is intended specifically to help contain liquidity mismatches.

In addition, the Financial Stability Board has issued:

(i) key attributes of effective resolution regimes for financial institutions; and

(ii) minimum requirements for global systemically important banks' total loss-absorbing capacity.

Together with stronger Basel III minimum capital requirements, these measures have increased the pool of resources available to authorities for resolving or winding down a gone concern. These resources have been expressly calibrated to minimise the exposure of depositors and taxpayers to failing banks.

Clearly, effective resolution requires ongoing communication and coordination among supervisors, resolution authorities and deposit insurers.

Even deposit insurers with a simple "paybox" mandate need to be involved in contingency planning in the run-up to a bank failure in order to ensure timely reimbursements of insured deposits.

Notably, in many jurisdictions the mandate of the deposit insurer is much broader, and includes a direct role in managing bank failure as receiver, liquidator or resolution authority.

In this context, it is important to keep in mind that a smooth resolution means different things for different banks.

While bail-in-able securities support the resolution of large banks, small and medium-sized institutions may simply be unable to issue such
Instruments. In fact, many of the smaller banks do not meet the conditions for use of resolution regimes.

Forthcoming research by the Financial Stability Institute concludes that, in such cases, the deposit insurer, as the responsible authority under an administrative regime, may require a wider range of instruments, beyond conventional liquidation actions.

These are needed to protect deposits as well as to manage and sell the bank's assets in a way that minimises the cost to the deposit insurance funds and maximises value for creditors.

Turning to large and complex institutions, there will always be uncertainty about the benefits and costs of letting them enter into resolution. But deposit insurance itself can help reduce such uncertainty.

By protecting small depositors and ensuring speedy payments, well structured schemes can shield authorities from political economy pressures to keep insolvent institutions afloat. This helps to reduce moral hazard.

The European deposit insurance scheme

Let me now turn to the European Deposit Insurance Scheme (EDIS).

Recent developments in Europe provide important insights on how deposit insurance fits into the broader regulatory framework and the associated challenges.

Specifically, the planned creation of a common deposit insurance scheme for the euro area is a key step towards the completion of the euro area's banking union.

As such, the EDIS would complement the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM), which have emerged as the regulatory response to the recent crisis.

The SSM and SRM are fully operational now, although the Single Resolution Fund, which backs the SRM, is to build up gradually to reach its target level only by end-2023.

In addition, there are also backstop arrangements with the European Stability Mechanism. In case the Single Resolution Fund is depleted by the failure of a large bank and that bank's sovereign has lost its access to capital markets, the European Stability Mechanism could step in as a lender of last resort.
The EDIS could prove instrumental for instilling trust in cases where the size of a national banking system overwhelms the public resources of the home country.

It would also be useful when the political climate casts doubt on the equal treatment of all depositors in the event of a bank failure.

But there are important challenges on the road to EDIS implementation.

The mutualisation principle of a supranational deposit insurance scheme gives rise to moral hazard issues not only at the bank level but also at the country level.

If national authorities are not fully responsible for protecting retail depositors, they may reduce their oversight of banks and allow more risk-taking.

This would make the banking system less stable. And if the reduction in oversight generalises, interlinkages between banks and sovereigns would undermine the credibility of supranational backstops.

The detrimental implications of such interlinkages are still fresh in Europeans' memory. For one, Italy and Spain experienced deposit flight during the sovereign crisis.

To contain such a flight from Ireland, the country's government felt compelled to extend protection to all bank debt, both new and existing.

This put pressure on taxpayers, who are also consumers, thus running against one of the key missions of retail deposit insurance. And Ireland's actions spilled over to other markets.

It is thus advisable that all countries seek to resolve legacy issues and address moral hazard now, before the EDIS has been put in place.

In the spirit of arrangements for national resolution funds in the EU, moral hazard could be alleviated by institutionalising the burden-sharing by banks' shareholders and junior creditors.

This would provide strong incentives to contain risk-taking, which would mitigate the accumulation of imbalances in tranquil times. Resolving the outstanding issues would enhance the effectiveness of the EDIS. This scheme would then fully benefit from the diversification of risks across countries.
In turn, such diversification would strengthen the resilience of the European banking system to localised stress.

**Depositors in the age of technological innovation**

Now what about technological innovations? To reflect lessons from the crisis, the IADI Core Principles were revised in 2014. The revision strengthened several key areas, including speed of reimbursement, deposit insurance coverage, funding and governance.

As deposit insurers seek to further increase the speed of reimbursement and to improve communication and coordination with other supervisory authorities, they will need to adapt to a changing financial landscape. Ideally, the adaptation should take place during periods of relative tranquillity, as crises are the worst times for improvisation.

Most recently, rapidly evolving technological innovations have accelerated the financial system’s post-crisis transformation. Such innovations have given rise to fintech startups that often collaborate with, or are acquired by, banks. They have also paved the way for large technology companies (“bigtechs”) to compete directly with banks.

Technology enhancements hold the potential to further improve the efficiency of deposit insurance schemes.

One example is data access, with improved IT structures at banks helping deposit insurers to gain access to relevant information in order to execute payouts more quickly. Another is communication, with new channels allowing deposit insurers to reach out directly to depositors of a failing bank.

These improvements, while seemingly minor when considered individually, add to the credibility of insurance schemes and thereby support trust in the financial system.

Yet new technologies also involve challenges that may become quite visible to the general public.

The fast flow of information and easy access to alternative products and web-based media may make deposits less sticky. A "one-click" migration of deposits has become extremely easy. This raises the bar for what constitutes a well structured deposit insurance scheme.

In addition, some bigtechs have started to provide bank-like intermediation, even though they cannot offer deposit insurance.
Likewise, fintech firms are in a position to receive bank licenses - eg from the Comptroller of the Currency in the United States - without offering insured deposits.

Whether and how digital wallets and other e-money should be insured is still subject to debate. What is undisputed is that customers should be well informed of the extent to which they are - or are not - protected.

**Concluding remarks**

Let me conclude with some observations on what these developments imply for policy. Clearly, deposit insurance design needs to learn from the past.

Notable progress has been made since the crisis. In the euro area, the introduction of the EDIS could prove to be a catalyst for financial integration, by completing the banking union, and for enhancing the regime for dealing with weak banks. More generally, deposit insurers have assumed an active role in resolution, strengthening the post-crisis financial system.

Deposit insurance also needs to preserve its flexibility to account for the ongoing technological revolution in finance. As the line between banks and non-banks blurs, there is an increasing likelihood that a crisis of confidence in the fintech sector could spill over to the traditional banking sector.

For instance, if deposits at bigtechs reach a critical mass, lost confidence in their liquidity could put pressure on the overall financial system and undermine trust in all deposits.

The importance of deposit insurance thus remains as relevant as ever.

Thank you very much.
Exchange of views with members of the Irish Parliament
Introductory statement by Mr Mario Draghi, President of the European Central Bank, during his exchange of views with the House of Representatives, Dublin.

Thank you, Chairman. I am happy to be back in Dublin and honoured to be invited to speak at the Oireachtas. On this occasion, I am joined by my colleague, Philip Lane, whom you meet regularly in his capacity as Governor of the Central Bank of Ireland.

While the ECB is accountable to the European Parliament, we greatly value our exchanges with national parliaments.

In September, some of you already met the Chair of the Supervisory Board, Danièle Nouy, in Frankfurt and discussed the ECB’s supervisory policies.

In full respect of the functional separation between the ECB’s monetary policy and its supervisory tasks, today is an opportunity to discuss our monetary policy and policies to make the euro area economy and its constituent parts more resilient.

In this respect, I expect an open exchange from this meeting, which will give us a chance to listen to and better appreciate each other’s positions.

I am conscious that I am speaking in a country that went through a severe crisis. The Irish people made tremendous efforts, for which I have great respect. And these efforts are now paying off.

The euro area economic outlook

Ten years after the start of the global financial crisis, the euro area economy is performing well - and has been for some time. We have now seen 22 consecutive quarters of economic growth, while over 9 million jobs have been created and the unemployment rate has declined to 8.1%, its lowest level since November 2008.
The Irish economy has seen a particularly strong expansion in recent years. Ireland is now growing at the fastest pace of any euro area country. Unemployment has been falling too, and now stands well below the euro area average.

This is all the more impressive given the severe crisis Ireland went through and the legacies it is dealing with, including high private debt and arrears.

Looking ahead, while some sector-specific data and selected survey results have been somewhat weaker than expected, the latest incoming information overall suggests that the broad-based expansion in the euro area, and in Ireland, is set to continue.

Against this background, euro area inflation is expected to continue to converge towards the ECB’s objective of below, but close to, 2% over the medium term.

Getting to this point has required considerable monetary policy support. The euro area is looking back on several years of exceptionally low interest rates and unconventional monetary policy measures.

The ECB’s key interest rates have been at unprecedented low levels since 2009. They have been supported by a series of unconventional measures, introduced in the face of a protracted recession and persistently low inflation.

While we are now at the point where we anticipate - subject to incoming data confirming our medium-term inflation outlook - that we will end net asset purchases at the end of the year, significant monetary stimulus will still be needed to ensure the continued sustained convergence of inflation to levels that are below, but close to, 2% over the medium term.

Even after we end our net asset purchases, monetary stimulus will continue to be provided by the guidance we have given namely that we expect to keep interest rates at their present levels at least through the summer of 2019 and to maintain the stock of assets on our balance sheet by reinvesting maturing bonds purchased under the asset purchase programme for an extended period of time after the end of our net asset purchases.

But the overall favourable outlook and our still accommodative stance should not invite complacency.

Although on the whole the risks surrounding the euro area growth outlook can still be assessed as broadly balanced, risks relating to protectionism,
vulnerabilities in emerging markets and financial market volatility remain/are prominent.

We are seeing a growing willingness to question multilateralism, which has underpinned global growth since the end of the Second World War.

The protectionist trade measures implemented may have had very limited effects thus far, but the escalation of trade tensions is undermining confidence.

Financial stability

Allow me also to say a few words about euro area financial stability. The financial stability environment in the euro area overall remains favourable, but it has become somewhat more challenging in recent months.

The results of the European stress test published last Friday show that euro area banks are increasingly resilient to financial shocks. This also reflects the continuing economic expansion, which has strengthened private and public balance sheets alike.

Still, there are risks. These include liquidity risks in the non-bank financial sector that could be transmitted to the broader financial system. Developments in this area should be closely monitored, and the regulatory and supervisory framework for non-banks needs to be strengthened.

Asset prices also require close monitoring. While there is currently no compelling evidence of overstretched asset valuations at the euro area level, we are seeing some localised risks. However, euro area monetary policy is not the appropriate tool with which to address such risks.

They call instead for targeted macroprudential policies, which can be tailored to local and sectoral conditions. The recent decisions by the Central Bank of Ireland are an example of how macroprudential policy can promote financial stability.

As regards Brexit, with negotiations ongoing and less than five months to go until the United Kingdom’s departure from the European Union, it is essential to prepare for all possible outcomes, including a no-deal scenario.

While the direct trade effects of a hard Brexit would be limited for the euro area as a whole, Ireland is more exposed due to its very close trade relations with the United Kingdom. We also see limited overall risks to euro area financial stability.
Without sufficient mitigating action, however, a cliff-edge Brexit could have an adverse impact in certain areas of centrally cleared derivatives markets.

Sources of risk from outside the EU have grown since May. A stronger US dollar and heightened trade tensions triggered renewed stress in a number of emerging market economies.

**Financial integration and the deepening of EMU**

Thanks to our collective efforts at the European and national level, we have come a long way since the start of the financial crisis.

However, to strengthen our economies and preserve financial stability, we need to go further.

Let me highlight in particular some of the concrete steps in the area of financial integration that we need to take at the European level.

**First**, we need to complete the architecture of the banking union. The benefits of having a euro area supervisor are clear when we look at banks' strengthened balance sheets.

Still, more needs to be done to reduce the risks for citizens as both taxpayers and depositors and to break the remaining link between banks and national governments.

In addition to the adoption of banking package which is currently under negotiation among EU legislators, a genuine banking union needs further regulatory harmonisation, for instance through greater reliance on Regulations instead of Directives.

In particular, unwarranted national options and discretions still stand in the way of a level playing field for banks. At the same time, we need to establish a common backstop to the Single Resolution Fund and lay the groundwork for the creation of an effective European Deposit Insurance Scheme.

Significant steps in these areas are a precondition for a truly integrated euro area banking system and single money. The transmission of the ECB's monetary policy remains at risk of being hampered in crisis situations as long as levels of depositor confidence differ across the euro area.

**The second** thing we need to do is build a true single market in capital.
Diversified capital markets play an important role in sharing risks and smoothing private consumption over time.

For this reason, the ECB has been a strong supporter of the European Commission's plan for a capital markets union.

To be robust, the capital markets union needs effective regulation and supervision, for example in relation to investment firms and clearing.

Not least given the United Kingdom's imminent departure from the EU, we need to make concrete progress on this agenda and complement it with an ambitious, longer-term vision.

Conclusions

I would like to end by mentioning that recent Eurobarometer data show that support for the euro stands at a record high of 77% among euro area citizens and a large majority believe that their country's membership of the EU is a good thing.

Support for the European project is particularly strong in Ireland, where with 88% of citizens the single currency enjoys the highest level of support in the EU.

Europe has to repay this trust.

We face important global challenges that are naturally causing concern among the people of Europe, especially those who feel left behind. Common institutions and collaboration among Member States give Europe a strong voice in the world.

More importantly, they make it possible for us to find effective answers to joint problems. In other words, we are stronger together. Thank you for your attention.
According to Gabriel Bernardino, Chairman, European Insurance and Occupational Pensions Authority:

“It gives me great pleasure to welcome you to this year’s annual conference, which examines the theme Insurance and Pensions: Securing the Future.

A good supervisor is forward-looking, proactive and preventive. A key trait is to ask not only ‘what has happened’, but also ‘what could happen?’ In this context, our conference will look at the key challenges for the insurance and pension industries and how to address these issues.

The conference includes speeches from distinguished guests as well as panel discussions on the following:

- Supervision of cross-border business: Have the lessons learnt from the crisis been implemented?
- Cyber risk and cyber insurance: A new risk or a new opportunity?

As cross-border business increases, the European dimension of supervision becomes increasingly important.

Through our conference, we aim to create a forum for debate, exchanges of information and new ideas.

In this way, bringing together high-level experts and representatives from the financial services industry, national supervisory authorities, consumer representatives, academia and the European Union institutions, we can be sure that a common European approach prevails, benefiting Europe’s economy, businesses, policy holders and beneficiaries.
I very much look forward to welcoming you to our conference and hearing your views on the future of insurance and pensions in Europe.”

To read more: https://eiopa.europa.eu/Publications/Events/Annual%20conference%20programme_FINAL.pdf
1 Introduction

Dear Mr Sewing,

Ladies and gentlemen,

It is always a pleasure to be here at the European Banking Congress; thank you for having me back.

In October 1929, the great US economist Irving Fisher declared that stock prices had reached what looked like a permanently high plateau. Just days later, the stock market crashed.

This vividly underlines that the present can be a poor guide to the future. When thinking about an economic "new normal", we should always be mindful of possible pitfalls like this one.

The lead question of today's conference - "Back to normal - what does it mean?" - can be applied to various aspects of monetary policy. In my remarks today, I will focus on the Eurosystem's future toolkit, the instruments designed to enable us to achieve price stability.

Where do we come from? Where are we going?

Dan Brown has written a suspense-packed novel of 500 pages around these questions. Within the operational framework of monetary policy, I will stay on this thread for the next quarter of an hour.

In Brown's novel "Origin", the character who set out to answer these questions in a presentation was assassinated right after the salutation. Thankfully, I seem to have already cleared that particular hurdle.
2 Where do we come from?

Prior to the financial crisis, the Eurosystem's framework was based on refinancing operations with competitive bidding procedures and limited allotment volumes, a wide and symmetric standing facilities corridor around the main policy rate and a relatively small balance sheet.

Then the financial crisis occurred, and in its wake a sovereign debt crisis ensued, followed by a period of subdued inflation.

The monetary policy response to these challenges was unprecedented. It entailed not only a series of interest rate cuts, which eventually moved the deposit rate into negative territory, but also the introduction of a broad range of non-standard measures. The Eurosystem switched into crisis mode.

The most recent and most significant of these measures is certainly the so-called Asset Purchase Programme (APP). In the opinion of the Governing Council, the APP was warranted by the risks implied by an overly prolonged period of low inflation.

Today, ten years after the financial crisis escalated, policy rates are still at historic lows. The Eurosystem has accumulated a huge portfolio of securities of various kinds, and refinancing operations offered to banks have remained more than generous.

As a result, excess liquidity stands at a level nine times higher than after the Lehman collapse, and monetary policy is roughly as expansionary as it was when the crisis was raging. Put differently, the remaining policy space is rather limited.

3 Where are we going?

Given where we are now, a well-known joke comes to mind: A tourist in a big city asks one of the locals for directions to the train station. The local replies, "Well Sir, if I were you, I wouldn't start from here".

But where are we going? Or to be more precise, where should we be going?

To some observers, our destination, the "new normal", should not look that different from the status quo. Among other things, they argue that non-standard measures such as large-scale asset purchases proved their worth during the crisis. Therefore, they should remain in the monetary policy toolbox and be applied under normal conditions as well.
3.1 Guiding principles

Ladies and gentlemen,

The Scottish philosopher David Hume postulated that we cannot derive the "ought" from the "is", the so-called Hume's law. Admittedly, we all know that "the normative force of the factual" can be strong. But this force arises from a general acceptance of the current state.

Instead of pre-determining details of the new normal or ruling out potentially relevant alternatives based on the status quo, we need to resort to guiding principles which are well-established and generally agreed upon.

Admittedly, acting in accordance with a principle should not be viewed as an end in itself. But at a time when many European citizens seem to be falling prey to scepticism about the historical project of European integration, I would like to highlight the positive and optimistic guidance that is laid out in the European Treaties.

The European Union aims at promoting the well-being of its citizens, ensuring economic and social progress, and improving the living and working conditions of our peoples. To achieve these broader aims, the Treaties provide guidance for policymakers by setting objectives and principles such as price stability, sound public finances, and market orientation.

In particular, the Treaties set two essential cornerstones for the design of the monetary policy framework.

The first cornerstone is the mandate. The primary objective of the Eurosystem is to maintain price stability. This establishes the criterion of effectiveness, as it implies that the monetary policy toolkit has to be designed in a way that allows the Eurosystem to achieve its goal.

Aiming at other objectives would risk blurring responsibilities and overburdening monetary policy. Moreover, central banks have been granted independence only with a view to achieving price stability. Thus, independence also calls for a narrow interpretation of the mandate. Otherwise, this would undermine the principle of democracy and, ultimately, call independence into question.

In addition, the Treaties set a second cornerstone for the Eurosystem: It has to act in line with the principle of an open market economy with free competition. The Treaties even provide a reason why - because respecting
market principles favours an efficient allocation of resources, helping to promote prosperity and achieve the broader aims of the European Union.

When it comes to evaluating the appropriateness of monetary policy measures, this means that effectiveness is the primary criterion. But the set of monetary policy instruments we use has to leave enough room for private sector market activities.

I would formulate that in the following rule: The balance sheet should be as large as necessary to give monetary policy sufficient power to ensure price stability and as lean as possible so that, in pursuit of its goal, it does not overly impede market activity.

From my point of view, therefore, the pre-crisis framework represents a normative orientation in the normalisation process. Under normal monetary policy conditions, it struck a sound balance between the effectiveness of instruments and the efficiency of markets.

### 3.2 Changing environment

Of course, the immediate question then is: Can we expect to return to the pre-crisis environment - or have the events of the past few years changed the environment fundamentally?

Some are concerned that monetary policy may not be sufficiently effective if the Eurosystem reverts towards the pre-crisis approach of a lean central bank balance sheet and steering only short-term rates. Such concerns are primarily based on the assumption that structural changes and frictions in financial markets call for a broader toolkit in order to maintain monetary policy effectiveness.

In particular, it is argued that the so-called natural real rate of interest has fallen significantly over the past decade. If this were true, it would imply a higher probability of hitting the lower bound of short-term interest rates.

The room for manoeuvre for conventional monetary policy would thus be narrowed. In addition, fragmented interbank markets could hamper the pass-through from conventional policy rates to longer-term interest rates.

Another argument points to non-banks playing a more important role in the transmission of monetary policy and highlights the divergence of short-term rates for banks and non-banks. And, finally, the demand for safe assets is said to have risen markedly.

Ladies and gentlemen,
I do not rule out the possibility that structural shifts and frictions in financial markets and the broader economy may require some tinkering with the operational framework.

But it is too early to draw such conclusions now at the beginning of the normalisation process.

It is quite obvious that the non-standard monetary policy measures themselves have created - or at least added to - the perceived challenges I have just highlighted.

Let me give you three examples.

With the APP, the Eurosystem itself reduced the amount of safe assets in the hands of the non-bank private sector.

Secondly, by creating large quantities of excess liquidity, the Eurosystem has contributed to persistently weak interbank market activity.

And, thirdly, the ultra-expansionary monetary policy compressed long-term interest rates for a prolonged period of time, which may also feed into natural rate estimates.

Apart from that, a Bundesbank analysis has stressed - and other studies have come to the same finding - that those natural rate estimates are highly uncertain.

For a figurative comparison, let’s look at hospitals. Critically ill patients often receive mechanical ventilation. After some time, this can weaken their respiratory muscles.

In order to prevent this, best practice suggests not prolonging support unnecessarily, as it involves increasing risks for the patient and a reduced quality of life. Instead, physicians apply a gradual liberalisation from mechanical ventilation, the so-called ”weaning”.

Admittedly, medical reality is much more complex than economists and bank managers may think. Hence, my wife - a practising physician - has advised me to refrain from medical analogies because we are prone to misinterpreting them.

Thus, I risk trouble at home - kind of disregarding her advice -, but I think you get the point.
3.3 Reconciling effectiveness and efficiency

It goes without saying that monetary policy implementation should not ignore relevant changes in its environment but may have to adapt to new economic and financial market conditions, digitalisation, or changes in the regulatory framework.

However, I am not convinced that monetary policy should routinely respond to changes in the environment by intervening in a growing number of market segments.

If and how monetary policy should adapt its toolbox can only be assessed after we have progressed on the path of normalisation. And even if a problem should persist, it would have to be demonstrated that central bank intervention was superior to other solutions. Finally, any intervention must be covered by our mandate.

For example, I would not consider the provision of safe assets a task for monetary policy. I would like to suggest that it is up to governments to make sovereign bonds safe assets again, especially by reducing the heavy burden of public debt in the euro area.

In a monetary union with independent national fiscal policies, a clear separation between monetary and fiscal policy is particularly important.

As I have stressed many times before, sovereign bond purchases blur the line between the two policy areas.

Their risks and side effects need to be taken into account when considering whether to add them to the regular toolkit.

In my view, sovereign bond purchases are - if rightly designed - a legitimate instrument, but in the specific context of the euro area an instrument which should only be used in exceptional cases to fend off a deflationary spiral.

A lean balance sheet in normal times would also help the Eurosystem to retain or regain sufficient policy space for cases of future need, i.e. future emergencies.

4 Conclusion

Ladies and gentlemen,

"It's hard to make predictions, especially about the future." - This is a truism that is so full of common sense that it has been attributed to
personalities as diverse as Niels Bohr, Mark Twain, and the legendary US baseball player Yogi Berra.

Economic cycles progress, trends can shift, and markets evolve. We cannot know what lies in store for monetary policy once non-standard measures have been cut back.

However, our monetary union should rest on sound principles that will guide us on our way forward.

For me, a monetary policy framework that achieves effectiveness in reaching our primary mandate and that, at the same time, leaves enough room for market activities is the most desirable. Until it is proven that a return to the pre-crisis framework constrains effectiveness of monetary policy in a non-trivial way, I see no reason to depart from the pre-crisis framework.

Thank for your attention.
I. INTRO

Last week, global financial policymakers gathered in Bali for the Annual Meetings of the IMF and World Bank.

These meetings came a decade after the global financial crisis, two decades after the Asian crisis, and three decades after the Latin American debt crisis. Anyone spot a pattern?

Despite the past decade of financial reform, many are asking whether anything has really changed. I am going to argue today that such weary fatalism is at odds with reality.

That the radical programme of G20 reforms has made the global financial system safer, simpler and fairer. That these measures are creating a system that can serve households and businesses in bad times as well as good.

That true change is creating true finance, a system that can deepen financial inclusion, better meet the needs of ageing populations and help fund the transition to a low carbon economy.

But I will also caution that we will forfeit these gains if we once again fall under the spell of the three lies of finance that helped cause the global financial crisis.

To resist their siren calls, we must maintain the new institutional frameworks created in its wake.

Globally, the most important of these is the Financial Stability Board (FSB).
Having agreed all the major international reforms to address the causes of the crisis, the FSB is now pivoting to focus on their timely, effective and consistent implementation.

Mindful of history, the FSB is also scanning the horizon to identify and address new vulnerabilities that emerge as the structure of our economies and financial systems change.

We know we cannot rest on our laurels. Financial history rhymes all too frequently, with enormous costs to our citizens. We must remain vigilant, resist the three lies of finance, and reinforce some core financial truths.

II. THE THREE LIES OF FINANCE

“This Time Is Different”

The first lie of finance is the four most expensive words in the English language: “This Time Is Different.”

This misconception is usually the product of an initial success, with early progress gradually building into a blind faith in a new era of effortless prosperity.

It took a revolution in macroeconomic policy to help win the battles against the high and unstable inflation, rising unemployment and volatile growth of the 1970s and 1980s.

Stagflationary threats were tamed by new regimes for monetary stability that were both democratically accountable and highly effective.

Clear remits. Parliamentary accountability. Sound governance. Independent, transparent and effective policy-making. These were the great successes of that time and their value endures today.

But these innovations did not deliver lasting macroeconomic stability. Far from it.

Price stability was no guarantee of financial stability. An initially healthy focus would become a dangerous distraction. Against the serene backdrop of the so-called Great Moderation, a storm was brewing as total non-financial debt in the G7 rose by the size of its GDP.

Several factors drove this debt super-cycle including demographics and the stagnation of middle-class real wages (itself the product of technology and globalisation). In the US, households had to borrow to increase
consumption.

“Let them eat cake” became “let them eat credit”.

Financial innovation made it easier to do so. And the ready supply of foreign capital made it cheaper.

Most importantly – and this is the lie – complacency among individuals and institutions, fed by a long period of macroeconomic stability and rising asset prices, made this remorseless borrowing seem sensible.

When the crisis broke, policymakers quickly dropped the received wisdoms of the Great Moderation and scrambled to re-learn the lessons of the Great Depression. Minsky became mainstream.

To read more: https://www.bis.org/review/r181025b.pdf
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