

Occasional Paper 16

A promising common safe asset – European MBS

Conference summary and selected contributions

A promising common safe asset – European MBS

The importance of mortgage markets and mortgage-backed securities (MBS) for monetary policy transmission and its implications for Europe

In the USA, mortgage-backed securities (MBS) play an important role in monetary policy transmission, with the Federal Reserve and banks as major investors. Europe's MBS market is small by comparison. Could Europe benefit from a standardized and liquid MBS market similar to that in the USA? Could it help create a common safe asset and strengthen Europe's financial autonomy? On June 10, 2025, renowned experts discussed this and related questions at a conference hosted by the Oesterreichische Nationalbank (OeNB). This report provides a summary of the event and selected contributions.

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Keynote: Mortgage markets are central to monetary policy

After an introduction by OeNB Governor Holzmann, Philip Schnabl explained the key role of mortgage markets and MBS in the transmission of monetary policy in the USA. Notably, between 2020 and 2024, the Fed's MBS purchases squeezed spreads and stimulated mortgage origination during QE, while during QT, spreads widened and housing activity slowed.



How important are mortgage markets and mortgage-backed securities for monetary policy transmission?

In session I of the conference, chaired by Governor Holzmann, Philip Schnabl and Maria Valderrama reflected on the monetary policy transmission mechanism and its heterogeneity in Europe as well as associated challenges, while Luis Brandao-Marques looked into the role of nonbank financial institutions.



How can Europe build a mortgage and securitization market similar to the US market?

In session II, chaired by David Marsh, Europe's challenges in its efforts of harmonizing MBS markets were explored. Edward Golding discussed potential lessons from the US MBS market, and Jesper Berg described the Danish covered bond system, while Markus Schwaiger looked into routes Europe could take toward creating a common MBS market.

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Conference summary

Robert Holzmann, Eleonora Endlich¹

Introduction

The transmission of monetary policy is fundamentally shaped by the structure and depth of financial markets. Its effectiveness depends not only on the monetary policy stance but also on the structure and integration of financial markets through which policy impulses are transmitted. A critical component of this transmission mechanism are mortgage markets and the instruments that support their liquidity and risk distribution, most notably, mortgage-backed securities (MBS). By transforming illiquid mortgage loans into tradable securities, MBS can enhance the responsiveness of mortgage credit to interest rate changes, facilitate risk-sharing across the financial system and support broader macroeconomic stabilization (Gertler and Karadi, 2010; Campbell, 2012). Generally, while the positive factors are obvious, the securitized system also has disadvantages, such as originators no longer having an incentive to underwrite mortgages properly. Furthermore, the originators can still become distressed if they hold a part of an MBS on their books. In addition, the problem of capital flight can reappear in a securitized system if public guarantees are not credible (Campbell, 2012).

In the USA, the development of a standardized and liquid MBS market has been supported by the institutional architecture of government-sponsored enterprises (GSEs) such as Fannie Mae and Freddie Mac. These entities have played a central role in promoting liquidity in the secondary mortgage market, standardizing mortgage products and providing an implicit guarantee that has attracted a broad investor base serving as a “safe asset” (Frame et al., 2015). This institutional framework has enabled the Federal Reserve (Fed) to use MBS as an instrument of monetary policy, particularly during periods of unconventional policy such as quantitative easing (QE) and quantitative tightening (QT). The scale and efficiency of the US MBS market have allowed the Fed to influence long-term interest rates, credit conditions and asset prices (Di Maggio et al., 2019).

By contrast, the euro area lacks a comparable institutional and market framework. Mortgage markets remain fragmented along national lines, securitization volumes are modest, and the absence of a common safe asset continues to hamper full financial integration and the uniform transmission of monetary impulses across member states (European Central Bank, 2024). The European Central Bank (ECB) has limited scope to use MBS in its monetary operations, and the lack of standardization in mortgage contracts, insolvency laws and underwriting practices further complicates the development of a pan-European MBS market (ESRB, 2022). These structural shortcomings can weaken the effectiveness of monetary policy, particularly in times of economic stress.

The importance of developing a common financial infrastructure in Europe has been emphasized in recent proposals to create a deep and liquid Eurobond market. Blanchard and Ubide (2025) argue that the euro area must urgently develop a common safe asset to achieve strategic autonomy and reduce its dependence on US Treasury markets. Their proposal envisions the creation of “blue bonds,” which would replace – in part – national sovereign debt with Eurobonds. This would help establish a large, standardized and liquid bond market that could serve as the foundation for a European financial

¹ Oesterreichische Nationalbank. Opinions expressed by the authors do not necessarily reflect the official viewpoint of the Oesterreichische Nationalbank or the Eurosystem.

ecosystem. A major question remains how much of the national debt should be replaced with these blue bonds. While the focus of this proposal is on sovereign debt, the underlying logic can apply equally to private credit markets. A European MBS market, supported by a GSE-like institution, could complement Eurobonds by providing a safe and liquid asset class based on mortgage credit, thereby reinforcing the monetary policy transmission mechanism and contributing to financial stability.

International experience offers valuable lessons. The US model has demonstrated the importance of institutional support, legal standardization and market infrastructure in fostering a robust MBS market. The Danish mortgage system with its covered bond framework offers an alternative model that combines market discipline with investor protection and a capital-markets-centered funding model that does not require a large role for government. The system has proven resilient through multiple financial cycles (Berg et al., 2018). While covered bonds differ from MBS in terms of structure and risk allocation, they share the objective of enhancing mortgage market liquidity and could serve as a complementary instrument in the European context. However, covered bonds are typically retained on bank balance sheets and may not offer the same degree of tradability or policy flexibility as MBS (Campbell, 2013).

A key question is whether the specific features of the US system – such as the standardized loan origination and centralized securitization – can be replicated in Europe, given its more complex institutional landscape. Regarding the implicit government guarantee for special purpose vehicles, the debate is ongoing: On the one hand, such a guarantee provides for lower borrowing costs and access to capital markets. On the other hand, it might encourage excessive risk-taking and create systemic risks as well as costs to the taxpayer in times of crisis. The best solution seems to be a system that is strong enough on its own; second best – albeit by a wide margin – would be a system with a guarantee that is paid for. Currently, the euro area lacks a fiscal union, and mortgage markets are governed by diverse legal and regulatory frameworks. Overcoming these barriers would require strong, forceful and coordinated action by the European Commission and national governments, as well as investment in market infrastructure such as e.g. centralized credit registries. The creation of a European securitization agency or GSE-like institution could also serve as a catalyst for this transformation, provided it is designed to respect national sovereignty while promoting cross-border integration.

The recent package of measures by the European Commission of June 2025 aims at making the EU securitization framework simpler and more fit for purpose (European Commission, 2025). The proposal, which is currently discussed by the European Parliament and the Council, amends the existing framework, which entered into application in 2019 and introduced rules regarding investor protection, transparency and financial stability. The proposed changes concern the simplification of certain due diligence and transparency requirements, the capital which needs to be held for securitizations and the risk sensitivity in the prudential framework for banks engaging in securitization. Reviving the securitization market to revive the capital markets union has also been proposed by an expert group report by Christian Noyer, Honorary Governor of the Banque de France, as well as Enrico Letta and Mario Draghi.

Finally, the role of the United Kingdom – home to Europe's largest capital market – should not be overlooked. Despite its departure from the EU, the UK has remained a key financial hub and has recently signaled a willingness to re-engage in European regulatory and market initiatives. A constructive partnership between the EU and the UK in developing a European MBS market could yield mutual benefits, particularly in terms of market depth, investor participation and regulatory alignment.

As part of its efforts to contribute to the debate on how to modernize Europe's financial architecture and enhance the effectiveness of its monetary policy framework, the Oesterreichische Nationalbank (OeNB) hosted a conference on June 10, 2025, which addressed the following core questions:

- How important are mortgage markets and MBS for monetary policy transmission in the euro area? Would a higher share of MBS on the balance sheets of the Eurosystem and commercial banks enhance interest rate sensitivity and accelerate policy transmission?
- What can Europe learn from the US and Danish experiences, and how can these lessons be adapted to the European context?
- What are the institutional, legal and political prerequisites for building a standardized and safe European MBS market?
- And finally, how can such a market contribute to the broader goal of creating a common safe asset and strengthening Europe's financial autonomy?

OeNB Governor Robert Holzmann emphasized in his opening remarks that monetary policy transmission in the euro area is highly uneven, with significant differences in how quickly and effectively policy measures impact member states. This heterogeneity stems from structural variations in banking systems, housing markets and fiscal policies, which complicate the ECB's efforts to achieve consistent economic outcomes. The lack of a common, low-risk benchmark asset further hinders financial integration and stability across the region. A European Mortgage-Backed Security (EMBS) could help address these challenges by pooling mortgage loans from various countries into a standardized and diversified financial instrument. EMBS would enhance market liquidity, support cross-border investment and improve the effectiveness of monetary policy. Holzmann stressed that for the concept to succeed, what is needed are harmonized regulatory frameworks, a strong political backing and thoughtful market design. With the right support, EMBS could become a cornerstone of the European financial system, fostering integration and resilience while offering a much needed safe asset without a mutualization of public debt.

Philipp Schnabl, Martin J. Gruber Professor in Asset Management and Professor of Finance at the New York University Stern School of Business, outlined how monetary policy significantly influenced the US mortgage market between 2020 and 2024. There were two key transmission channels: the Federal Reserve's quantitative easing/tightening (QE/QT) and the deposits channel through banks. Both the Fed and banks acted as price-insensitive investors in the MBS market, which means their actions were not driven by market prices but by policy decisions and deposit flows. During the easing phase, massive purchases of MBS by both institutions led to a collapse in mortgage spreads and a boom in originations, while tightening reversed these effects, causing spreads to widen and housing activity to slow.

Schnabl quantified these effects using an equilibrium model and empirical data, showing that a 10% increase in Fed MBS holdings reduced mortgage spreads by 40 basis points, and a 100-basis-point drop in mortgage rates increased originations significantly. He emphasized the persistent role of banks, which have historically financed about half of all mortgages, and demonstrated a strong link between deposit growth and MBS holdings. Additional evidence from cross-sectional bank data, the SVB collapse and historical trends reinforces the robustness of these mechanisms. Ultimately, he concluded that mortgage markets are a vital conduit for monetary policy, with the Fed and banks' MBS activities playing a central role in shaping housing credit and broader economic outcomes.

Maria Teresa Valderrama, Head of the Monetary Policy Section at the OeNB, presented the characteristics of monetary policy transmission in the euro area, highlighting significant heterogeneity across different countries and economic segments. She outlined the various efforts undertaken to better

understand the heterogeneity, speed and strength of monetary policy transmission, such as Eurosystem-wide initiatives in the context of the Eurosystem strategy review and the ESCB Research Network “Challenges for Monetary Policy Transmission in a Changing World” (ChaMP). Specific findings indicate that homeownership type and adjustability of mortgages impact household reactions to monetary policy changes. For instance, adjustable-rate mortgages and high levels of homeownership amplify the effects through the cash flow channel (see De Jonghe et al., 2025).

Based on Ferstl et al. (forthcoming), Valderrama also delved into the country-specific responses to bank lending influenced by monetary policy and noted that while the responses are generally synchronized, the magnitude and specifics vary considerably among euro area countries. Moreover, different household segments respond uniquely to monetary tightening, e.g. older homeowners increase borrowing and highly indebted households reduce consumption when interest rates rise (see De Jonghe et al., 2025). Overall, Valderrama emphasized the need for granular data, particularly for household lending, to fully understand and navigate the heterogeneity in monetary policy transmission.

Luis Brandao-Marques, Deputy Unit Chief, European Department, IMF, discussed how the shift from bank-based to market-based financial intermediation – particularly through securitization and the rise of nonbank financial institutions (NBFIs) – affects the transmission of monetary policy. Drawing on empirical work from the IMF’s 2016 Global Financial Stability Report, he shows that monetary policy transmission has generally strengthened over time and has not weakened post-COVID. He highlighted that countries with larger NBFIs tend to experience stronger transmission effects, although the differences are modest.

Furthermore, nonbanks, such as mutual funds and other financial intermediaries, often respond more intensely to monetary policy changes than traditional banks. A key mechanism is the “risk-taking channel,” where entities like mutual funds increase portfolio risk in response to accommodative monetary policy. This behavior amplifies the effects of monetary policy on financial markets and the broader economy. Marques concluded that a continued shift toward market-based finance, including securitization, could enhance the transmission and thus effectiveness of monetary policy. However, he also noted that structural differences across countries and financial systems influence the magnitude and nature of these effects, underscoring the importance of understanding institutional composition when evaluating policy transmission.

David Marsh, Chairman, Chief Executive Officer and Co-Founder of OMFIF, explored the long-standing challenges of harmonizing MBS markets across Europe, tracing historical efforts back to the UK’s brief participation in the European Exchange Rate Mechanism. He highlights how fragmented housing finance systems – ranging from floating-rate models like the UK’s to fixed rate systems like Germany’s – have hindered monetary policy alignment and financial integration. Despite calls from institutions like the ECB and influential reports by Christian Noyer and Mario Draghi, Europe remains far from establishing a unified MBS market. The lack of a common regulatory framework, cross-border asset pooling and standardized practices continues to impede progress, especially when compared to the deep and liquid US MBS market.

Marsh emphasized that while securitization could enhance monetary policy transmission, increase financial resilience and help meet massive investment needs (e.g., in the green and digital transition), Europe’s political and structural fragmentation poses significant barriers. Even promising models like Denmark’s covered bond system, which offers low-risk and highly liquid mortgage financing, face complications due to its non-euro status. Marsh concludes that although the vision for a harmonized

European MBS market is clear and compelling, the gap between ambition and implementation remains wide. For now, Europe must continue to navigate its financial landscape with imperfect structures and limited integration (see also Marsh, 2025).

Edward Golding, non-resident Fellow at the Urban Institute and former Executive Director, MIT Golub Center for Finance and Policy, delved into the details of the US MBS market, highlighting its significance and the mechanisms that ensure its liquidity. The US MBS market is the second-largest in terms of size and trading volume, following the Treasury market. It is dominated by Ginnie Mae, Freddie Mac and Fannie Mae, which collectively hold USD 9.3 trillion in outstanding MBS. The liquidity of the MBS market is maintained through rigorous standardization and oversight. This includes setting standards for mortgage origination, pooling and trading practices. The Securities Industry and Financial Markets Association (SIFMA) plays a crucial role in setting standards.

Golding described the historical development of the US MBS market from the 1930s to the present, noting key milestones such as the creation of the Federal Housing Administration (FHA) in 1934, the savings and loans crisis in the 1980s and the great financial crisis in 2008/2009, when Freddie Mac and Fannie Mae were placed into conservatorship. Recent developments include the combining of Freddie Mac and Fannie Mae securities into a single security, the handling of delinquent mortgages during the COVID-19 pandemic and the Federal Reserve's practices during quantitative easing to maintain liquidity.

Overall, Golding emphasized the importance of a well-functioning, liquid MBS market for the US economy. He argues that continuous standardization and oversight are essential to maintain this liquidity, especially as technology and market conditions evolve.

Jesper Berg, non-resident Fellow at Bruegel and former Head of the Danish Financial Supervisory Authority, compared the Danish covered bond system with the US MBS market, highlighting the features that make Danish covered bonds a good candidate for safe assets. He also discussed the potential of other EU countries to adopt similar systems to increase the supply of safe assets and develop their capital markets.

The Danish system is characterized by stand-alone financial institutions that grant mortgages and finance themselves by issuing covered bonds. These bonds match the cash flow of the loans, ensuring transparency and reducing market and liquidity risk. The Danish system offers strong creditor protection, with borrowers remaining personally liable for their loans even after foreclosure. This contrasts with the US practice where borrowers can walk away from their mortgages. Furthermore, the covered bond system has at least two monetary policy implications: first, it can increase the universe of pledgeable securities, and second, it can enhance the transmission of monetary policy. However, the transmission of monetary policy depends on whether the mortgages are fixed rate or variable rate loans.

Berg noted that while the Danish and US systems share some similarities, such as offering fixed rate 30-year bonds, they differ significantly in their approach to credit risk and government guarantees. Overall, he argued that the Danish mortgage model offers a viable alternative to the US MBS market, with potential benefits for increasing the supply of safe assets and developing capital markets in the EU. However, he also acknowledged the need for careful consideration of national legal and social models.

Markus Schwaiger, Director of the OeNB Department for Financial Stability and the Supervision of LSIs, outlined the significant gap between the US and EU MBS markets, emphasizing the US market's scale, liquidity and institutional support through GSEs. In contrast, the EU market remains fragmented, with limited securitization, concentrated issuance and no equivalent GSE infrastructure. Legal and regulatory

fragmentation across member states – especially in mortgage contracts and insolvency laws – hinders cross-border asset pooling and diversification, making EU MBS structures riskier and less attractive to investors. While the EU has made some progress, having adopted the Covered Bond Directive and the STS (simple, transparent, standardised) label to improve standardization and investor confidence, these efforts have not yet translated into a robust, integrated MBS market.

Schwaiger highlighted recent proposals, including the European Commission's 2025 reforms and Christian Noyer's recommendation for a European securitization platform, aimed at bundling high-quality mortgage loans and offering public guarantees for senior tranches. Such initiatives could deepen capital markets, enhance financial integration and lower financing costs. However, Schwaiger cautioned against shortcuts – that could come at the cost of potentially jeopardizing financial stability - like over-reliance on guarantees or regulatory incentives, stressing the need to first address structural barriers by harmonizing legal frameworks, ensuring prudent lending standards and aligning incentives to avoid excessive risk-taking. A well-designed European MBS market could unlock significant funding potential, but only if built on a foundation of transparency, simplicity and sound regulation.

Conclusions

The discussion highlighted the critical role of MBS markets in financial stability and economic growth as well as monetary policy transmission. The analysis of the US MBS market underscored the importance of standardization and oversight, while the comparison with the Danish mortgage model reveals the potential benefits of strong creditor protection and transparency. The empirical evidence demonstrates the significant impact of monetary policy on mortgage credit supply, emphasizing the interconnectedness of financial markets and the real economy. Together, these insights underscored that a well-regulated and integrated MBS market can support economic stability, and that the vision for a harmonized European MBS market is clear and compelling.

However, the structural and regulatory challenges of developing a robust European MBS market are big and the gap between ambition and implementation remains wide. Targeted reforms and the harmonization of legal frameworks are essential for overcoming fragmentation and enhancing market integration. As the euro area continues to face structural challenges and geopolitical uncertainties, the time may be right for bold institutional innovation. A European MBS market, if properly designed and supported, could become a part of a more resilient financial system, support monetary policy transmission and provide for much needed safe assets.

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Monetary policy and the mortgage market (summary)

Philipp Schnabl²

This article provides an overview of the main ideas and findings of the paper “Monetary Policy and the Mortgage Market” published in the “Proceedings of the Jackson Hole Economic Policy Symposium: Reassessing the Effectiveness and Transmission of Monetary Policy, 2024.” The objective is to present the key mechanisms and empirical results in a concise format.

Introduction and motivation

Monetary policy had a powerful and highly visible impact on the housing market during the 2020–2024 cycle in the United States. Mortgage rates plummeted during the easing phase of the cycle and surged during the subsequent tightening. Mortgage originations followed the same pattern: they boomed during 2020–2021 and contracted sharply thereafter.

This experience underscores the central role that mortgage markets play in the transmission of monetary policy. Our work provides a framework to understand this role and documents empirically how monetary policy impacts the supply of mortgage credit through its effects on the two dominant holders of mortgages in the economy: banks and the Federal Reserve (Fed).

Channels of transmission: quantitative easing and the deposits channel

Monetary policy affects mortgage credit supply through two main mechanisms:

Quantitative easing/tightening (QE/QT): When the Fed buys or sells mortgage-backed securities (MBS) as part of QE or QT, it directly changes the supply of mortgage credit by altering the quantity of MBS held on its balance sheet. These purchases are large and pre-announced, and they do not respond to changes in market prices, making the Fed a price-insensitive investor.

Deposits channel of monetary policy: Banks also respond to monetary policy via deposit flows.

When the Fed lowers interest rates, deposits flow into banks due to their market power in deposit markets. Banks then use these low-beta deposits to buy long-term fixed rate assets like MBS, hedging the interest sensitivity of their balance sheets. When the Fed raises rates, deposits flow out, forcing banks to sell MBS.

The key insight is that both the Fed and banks act as price-insensitive investors in the MBS market. Their actions shift the total supply of mortgage credit and hence drive mortgage spreads, mortgage originations and real activity in the housing sector.

Evidence from the 2020–2024 monetary policy cycle

We document that during 2020–2021, both the Fed and banks dramatically increased their holdings of MBS – by USD 1.3 trillion and USD 1 trillion, respectively. These purchases represented close to a quarter of the entire MBS market and were accompanied by a collapse in mortgage spreads. At the same

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time, other (price-sensitive) MBS investors such as mutual funds and insurers were net sellers, consistent with equilibrium reallocation.

Mortgage spreads fell by around 100 basis points, gross mortgage originations doubled (from USD 2.3 trillion in 2019 to USD 4.7 trillion in 2021) and net MBS issuance surged. The expansion of mortgage credit contributed significantly to consumer refinancing, housing investment and aggregate demand.

In 2022–2023, this process reversed. As the Fed raised rates and began QT, and as deposits flowed out of banks, both institutions reduced their MBS holdings by over USD 0.8 trillion in total. Mortgage spreads widened sharply, originations collapsed, and housing activity slowed.

Quantifying the effects

We use a simple equilibrium model of the MBS market featuring price-insensitive agents (the Fed and banks) and a price-sensitive marginal investor (asset managers). By instrumenting for MBS price changes using Fed QE activity, we estimate the price elasticity of asset managers and the responsiveness of mortgage borrowers to changes in mortgage rates.

Our estimates imply that a 10-percentage-point increase in Fed MBS holdings reduces mortgage spreads by 40 basis points. We also find that a 100-basis-point drop in mortgage rates raises gross originations by over 10%, and net originations by about 4%.

Using these estimates, we run a counterfactual analysis to assess the contribution of QE and the deposits channel. Each mechanism accounted for roughly 40 basis points of the drop in mortgage spreads during 2020–2021, together explaining about USD 3 trillion in additional gross mortgage originations and over USD 1 trillion in net MBS issuance.

The role of banks and deposits

A central insight of the paper is that banks play a dominant and persistent role in the mortgage market. Over the past three decades, banks have financed around half of all mortgages – either through portfolio loans or MBS holdings. The deposits channel of monetary policy explains why banks invest in long-term fixed rate assets like MBS and why their holdings respond so strongly to monetary policy.

We document a tight historical relationship between bank deposit growth and MBS holdings, and between MBS holdings and mortgage spreads, across multiple monetary cycles. This implies that even in the absence of QE, the deposits channel remains an important lever through which monetary policy affects mortgage credit supply.

Additional evidence: event study and cross-sectional patterns

To further support our findings, we provide three pieces of additional evidence:

Cross-sectional evidence: We show that banks with larger deposit inflows during QE purchased more MBS, and banks with larger deposit outflows during QT reduced their MBS holdings more.

The relationship is tight and approximately linear across thousands of banks.

Event study of Silicon Valley Bank (SVB) collapse: The 2023 regional banking crises, triggered by SVB's failure, caused a sudden drop in MBS prices relative to Treasury benchmarks. This is consistent with a negative shock to banks' MBS demand due to expected deposit outflows – highlighting banks' role in MBS pricing.

Historical analysis: The relationship between deposits, MBS holdings and mortgage spreads holds consistently since the early 1990s, suggesting that the mechanisms we identify are robust features of the US financial system.

Conclusion

Our findings show that mortgage markets are a central channel through which monetary policy affects the real economy. This is because the Fed and banks – the two largest providers of mortgage credit – adjust their MBS holdings in response to monetary policy. When both institutions expand their MBS portfolios, they lower mortgage spreads and fuel housing credit booms. When they contract their holdings, mortgage spreads rise, and housing activity slows.

These dynamics were especially strong during the 2020–2024 cycle due to the combination of QE and sharp movements in the policy rate. But the underlying mechanisms – the Fed's QE/QT operations and the deposits channel – are persistent features of the financial system and are likely to remain important going forward.

How do mortgage-backed securities contribute to monetary policy transmission?

Luis Brandao Marques³

Securitization, particularly in the mortgage markets through the increased issuance of mortgage-backed securities (MBS), has likely changed the transmission of monetary policy. The growth in the MBS market may have influenced the way changes in monetary policy rates or asset purchases or sales by central bank decisions affect credit markets, market interest rates and economic activity in three ways: first, by increasing financial intermediation through nonbanks and the role of market-based finance, while reducing the role of bank-based intermediation (Estrella, 2002; Brandão-Marques et al., 2016); second, by changing the way banks fund themselves; third, the existence of a liquid MBS market may have changed how mortgage markets function and, thus, interest rate pass-through and monetary policy transmission.

One of the effects of securitization was that it reduced the relative importance of banks in credit intermediation. This may have made one of the traditionally key transmission channels – the bank lending channel – less important. In theory, nonbanks can either dampen or amplify the transmission of monetary policy. On the one hand, the growth in securitization and the associated increase in nonbank financial intermediation may have weakened the direct impact of monetary policy on real output through the “shadow banking channel” according to which nonbanks expand money creation during tightening cycles and offset reductions in commercial bank deposits (Xiao, 2020). According to this view, nonbanks may then be able to step in to lend in lieu of banks (Cucic and Gorea, 2025), an effect that could be amplified if nonbanks are not subject to the same regulatory constraints.

On the other hand, an increase in nonbank intermediation (potentially driven by securitization) may amplify the transmission of monetary policy if nonbanks’ risk appetite is more sensitive to changes in monetary policy than that of banks. Expansionary monetary policy can increase the risk-bearing capacity of financial institutions, thus increasing lending. This could happen if higher trading profits allow financial intermediaries to take on more leverage or if higher asset prices relax internal risk models (Adrian and Shin, 2011). In addition, incentives related to performance measurement and risk management can further enhance the risk-taking channel and suggest that even financial institutions without significant leverage can amplify the transmission of monetary policy. Finally, a large asset management industry largely driven by concerns about relative performance (i.e. in which fund managers are rewarded based on how their performance compares with that of their peers; Chevalier and Ellison, 1997) can also amplify the transmission of monetary policy. This compensation structure creates a first-mover advantage that could make asset managers especially sensitive to changes in short-term rates and to the behavior of other asset managers, thus triggering significant asset price movements in response to small changes in the monetary policy stance (Morris and Shin, 2015). In addition, fund investors may perceive a first-mover advantage when responding to changes in fund performance arising from a change in interest rates, thus increasing the responsiveness of asset prices to monetary policy changes (Feroli et al., 2014). When both effects (relative performance concerns of fund managers and quick redemptions by ultimate investors) combine, the magnitude of the effect of monetary contractions on asset prices could be further amplified. Thus, as the size of the asset

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management industry grows driven by securitization, the effect of monetary policy on asset prices may increase, which could also increase the resulting effect on credit and economic activity via the balance sheet channel.

Empirical studies such as Brandão-Marques et al. (2016) found that the increasing importance of nonbanks for financial intermediation had, if anything, strengthened monetary policy transmission since 2000. According to that study, the potency of monetary policy appeared to have risen in various advanced economies and seemed to be, on average, stronger in countries with larger nonbank financial sectors. Moreover, nonbanks contract their balance sheets when monetary policy tightens and, in general, more so than banks.

Furthermore, securitization provides banks with an additional source of funding and makes them less constrained by the cost and availability of funds when monetary policy tightens. In particular, securitization creates a new source of liquidity for banks by enabling them to convert illiquid loans into marketable securities (Loutskina, 2011). This ability to liquefy assets makes banks less sensitive to policy rate movements and can mitigate the impact of rising funding costs and thus dampen transmission by banks too. However, securitization, especially when combined with low monetary policy rates, can amplify the softening of lending standards for mortgages. This occurs because higher securitization activity complements low monetary policy rates in loosening standards – by relaxing banks' capacity constraints (Maddaloni and Peydró, 2011). This effect would amplify transmission through the risk-taking channel.

Although the overall influence of securitization and the growth of the MBS market may have weakened the transmission of monetary policy to real output, the pass-through of policy rate changes to mortgage interest rates likely became stronger and more direct in the presence of higher securitization (Sellon, 2002). This is because securitization ties mortgage markets more closely to broader capital markets, making mortgage rates more responsive to other market interest rates. As securitization has deepened and broadened mortgage markets, it has increased market efficiency and reduced dispersion in mortgage rates. In addition, the creation of a large and integrated market for MBS (e.g. in the United States) made mortgage lending (and transmission) more uniform across regions and less dependent on local economic shocks or the health of local banking markets (Estrella, 2002). And, as securitization requires standardized mortgage contracts, it could lead to a larger response of credit to monetary policy if tighter or looser lending criteria are applied uniformly to all loans intended for securitization.

However, the interaction between securitization and the ability of homeowners to refinance their mortgages complicates things.⁴ Securitization, by contributing to lower mortgage origination costs, has made refinancing less costly for households (Sellon, 2002). This, in turn, may have reduced interest rate pass-through and monetary policy transmission during tightening cycles, with the opposite effect during monetary easing periods (see Eichenbaum et al., 2022, for explanations and evidence of how mortgage refinancing has contributed to a more state-dependent transmission). Moreover, a historically high share of fixed-rate mortgages, although not directly caused by securitization but associated with it (at least in the United States), can dampen monetary policy transmission during a tightening cycle as

⁴ Mortgage refinancing is a primary direct channel for transmitting accommodative monetary policy's stimulative effects (Agarwal et al., 2023). When rates fall, homeowners with fixed-rate mortgages can refinance to lower monthly payments or extract cash, increasing discretionary income and stimulating spending.

homeowners are insulated from rising rates, thus less strongly affecting consumption and housing purchase decisions (Kinnerud, 2025).⁵

In conclusion, the likely effects exerted on monetary policy transmission by securitization in general and by the development of a market for mortgage-backed securities are multifaceted and difficult to track. The fact that much remains to be uncovered regarding how mortgage-backed securities contribute to monetary policy transmission and how central banks can learn from different country experiences suggests that this is still a fertile ground for future research.

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Living with imperfection – slow progress toward MBS harmonization in Europe: need for further integration is evident, but vision and reality are still far apart

David Marsh⁶

When Britain joined the exchange rate mechanism (ERM) of the European Monetary System in October 1990, one of the big open questions was whether the frameworks for housing finance in the UK and on the continent would become better harmonized to underpin the pound sterling's new role in a fixed exchange rate system with the rest of Europe.

The Deutsche mark was the anchor of the new arrangements. One of the hopes of proponents of UK membership was that, over time, the UK market for household mortgages, based on floating interest rates, would close the gap with the continent and become more aligned with the fixed-rate Deutsche mark model – based on the issuance of long-term mortgage bonds by German financial institutions.

These hopes were soon dashed. At a time when the aftermath of German reunification was creating inflationary pressures in the German economy, forcing the Deutsche Bundesbank to tighten monetary policy, the pound sterling stayed in the increasingly problematic ERM for only 23 months. This was by far not enough time to allow for fundamental changes in the structure of the economy. The UK's engagement ended long before the need for alignment of British and mainland European structures started to work through into the economy.

Underlining the importance of mortgage finance in the UK system, the UK's membership in the ERM was in accord with the wishes of Margaret Thatcher, the UK's Eurosceptic prime minister at the time, to bring down interest rates and relieve financial pressures on homeowners. And the UK departed on "Black Wednesday" – September 16, 1992 – under Thatcher's successor John Major because ERM constraints (the tight monetary policies of the Deutsche Bundesbank) were forcing up UK interest rates, and particularly mortgage rates, to politically unacceptable levels. The episode shows how the cost and availability of mortgage financing are issues deeply embedded in the political history and psychology not just of the UK but of many countries around the world.

All the more reason, therefore, to consider whether harmonization of the market systems for mortgage-backed securities (MBS) throughout the European Union (EU) could be a unifying influence on the underlying financial and political structure of Europe. An enhanced move toward the securitization of mortgage instruments, as recommended in seminal studies such as the April 2024 report on a "savings and investment union" drawn up by Christian Noyer, former governor of the Banque de France, could have a major impact not just on alleviating housing finance but also on improving the efficiency of monetary policy transmission across Europe.

A standardized market for MBS throughout the European Union would go some way toward providing the EU with an improved offering of "safe assets" – reinforcing the international role of the euro and helping improve general competitive conditions in economic rivalry with the USA and China. The successful US-American MBS market provides strong evidence of the overarching benefits of such

⁶ Official Monetary and Institutions Forum (OMFIF). Opinions expressed by the author do not necessarily reflect the official viewpoint of the Oesterreichische Nationalbank, the Eurosystem or OMFIF.

financial models – even though there are important long-standing barriers to adopting anything similar in Europe.

Entities forming the bedrock of the US system, such as the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), have evolved over the decades. The now fully fledged MBS market forms one element of a broad, deep and liquid US capital market structure that supports the Federal Reserve in its monetary policy functions. This facilitates operations such as quantitative easing and quantitative tightening, helping strengthen the US dollar's pivotal position in the international monetary system.

The European Central Bank (ECB) has on many occasions called for a more unified financial market in Europe to help improve not only overall macroeconomic conditions but also the effectiveness of monetary policy. It would significantly help the ECB's task of keeping inflation under control without undue interest rate fluctuations which can impinge negatively on the underlying economy.

However, in view of persistent EU fragmentation, even outline contours of an integrated MBS market are a long way from being discernible. The reasons for this lie in the same set of wide-ranging social and political differences across EU member states that were evident in Europe's poor response to US President Donald Trump's threats of outsized US tariffs in his "Liberation Day" declarations on April 2, 2025. There is an unfortunate lack of cohesive unified EU policy on trade as well as finance – all evident, to give one prime recent example, in the one-sided US-EU trade deal announced on July 27 this year.

Fragmentation in mortgage finance is just one part of a phenomenon linked to the widening economic gap with the USA, manifesting itself in a number of ways. The Noyer report underlines how, confronted with "massive financing needs," Europe must tackle the task of capital market deepening to cope with additional financing requirements approaching EUR 1 trillion a year. "The green transition alone will necessitate annual additional investments of nearly €700 billion, while the digital transition could require as much as €125 billion, and other massive needs are emerging in the defense domain."

The Noyer report recommends correcting the regulatory and prudential framework for securitization, involving changes in liquidity buffers for banks, simplifying transparency rules and adjusting the prudential framework. Noyer suggests a European platform for securitization would be a powerful tool for deepening capital markets. He noted that the USA, Canada and Japan have long implemented platforms for issuing or guaranteeing mortgage securitizations.

The September 2024 report on "The Future of European Competitiveness" by Mario Draghi, former ECB president and Italian prime minister, drawn up for the European Commission, comes to a similar conclusion. The report focuses on closing the innovation gap with the USA and China, increasing security and lowering dependency on foreign states, and has at its centerpiece a plan for an industrial deal for competitive industries and high-quality jobs.

The report emphasizes how fragmentation of EU capital markets and the lower flows of savings into capital are major reasons for low investment financing in Europe. It points to three main fault lines. First, it bemoans the lack of a single securities market regulator and a single rulebook for all aspects of trading, as well as the lack of homogeneous supervisory practices and interpretations of regulations. Second, Draghi criticizes shortcomings in unifying the post-trade environment for clearing and settlement. And third, he emphasizes the oft-cited nonalignment of the withholding tax, tax and insolvency regimes across member states.

As Draghi writes, greater recourse to securitization would increase the competitiveness of EU financial markets, considering the EU's heavy reliance on bank financing. "Securitisation makes banks' balance sheets more flexible by allowing them to transfer some risk to investors, release capital and unlock additional lending. In the EU context, it could also act as a substitute for lack of capital market integration by allowing banks to package loans originating in different Member States into standardised and tradeable assets that can be purchased also by non-bank investors."

So the prescription is clear enough. What about implementation? This is where Europe does not live up to the hopes vested in it. Europe is a long way from realizing the benefits of scale afforded by the euro's establishment 25 years ago. The US and European MBS markets are of different orders of magnitude, with the US market totaling around USD 20 trillion against the EU's EUR 5 trillion, according to Markus Schwaiger of the Oesterreichische Nationalbank (OeNB). Europe is characterized by heavy concentration, with 80% of deals centered on just five countries. According to Schwaiger, the lack of cross-border asset pooling makes it hard for investors to assess risks across jurisdictions and impedes the bundling of loans from different countries.

This lack of scale and diversification becomes self-feeding and self-perpetuating: With limited cross-border asset pooling, diversification within the MBS structure is limited. Given the importance of diversification for upper tranches of a securitization, this makes MBS structures riskier, with correspondingly divergent yields in different countries. Although the EU's Covered Bond Directive was transposed into national law by May 2022, it is too early to speak about a breakthrough. Investors have responded favorably, and harmonization has led to increased issuance volumes. However, much more needs to be done to turn this into a fully effective cross-border model.

Any reflection on moving to a more resilient system for mortgage financing has to consider whether the US model is the right framework to emulate. As the Noyer report concluded, shortcomings in origination practices in mortgage loans in the USA lead to a much higher level of defaults in the USA compared with the less vibrant but less risky equivalent in Europe. The Vienna seminar on June 10, 2025, heard a compelling presentation by Jesper Berg, former head of the Danish Financial Supervisory Authority, on how Denmark, outside monetary union, offers a first-class model for a covered bond market providing a highly-rated, liquid and relatively low-risk framework for mortgage financing, superior in many respects to the US model.

The Danish example indicates how the examination of templates for a Europe-wide system for mortgage financing should not be limited to countries within Economic and Monetary Union (EMU). This, though, opens up a potential conflict with political management. The rationale for moving to a single currency was to allow harmonization of practices within a unified monetary bloc. Adopting as a central model a system from a country running a separate currency – even one, in the case of Denmark, closely linked to the euro and the ECB – would bring an additional element of complication detrimental to Europe's purpose.

In the same way, the harmonization of practices over mortgage lending between the euro area and the UK, despite the rapprochement between the EU and the government of British Prime Minister Keir Starmer, seems as far away as it was in 1990–92. A rational approach to a unified capital market framework in Europe would encompass practices from countries such as the UK, Switzerland, Sweden and Denmark, which are outside either the monetary union or the EU or both. However, such a unified framework seems a long way from Europe's political reality.

Undoubtedly, setting up a European equivalent to Fannie Mae and Freddie Mac with a standardized MBS market would represent bold progress toward fostering financial stability and integration within the euro area. This would be part of a series of necessary steps toward restoring some measure of balance in the economic, trade and financial relationship with the USA, which is becoming ever more out of kilter. However, the array of technical as well as political hurdles suggests that, in the discernible future, vision and reality will remain far apart. Europe's consumers, financial market practitioners, politicians and regulators will have to live with imperfection for some time to come.

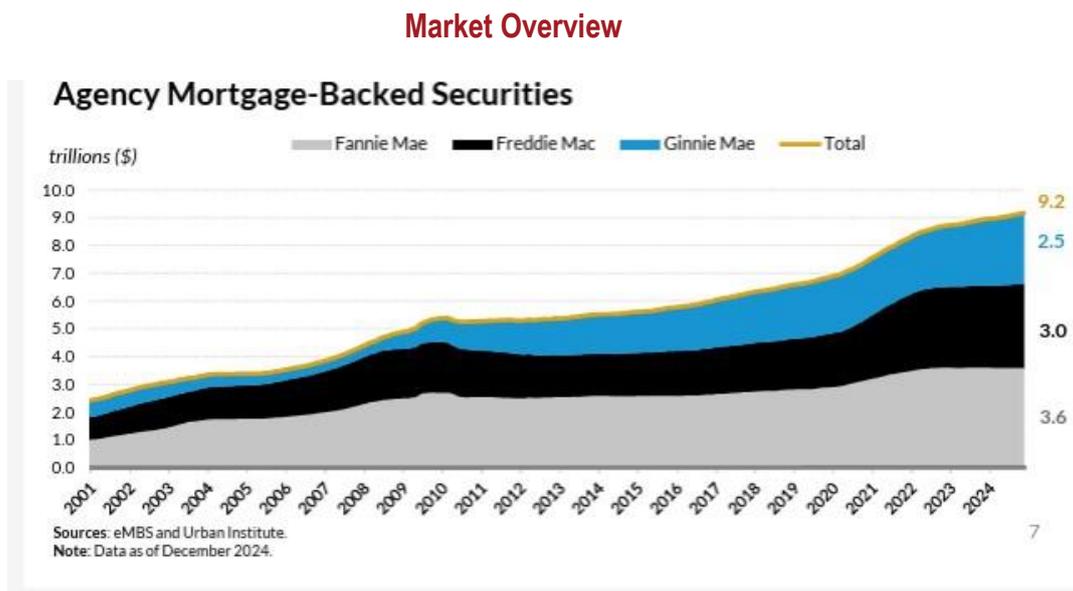
Creating a liquid mortgage-backed securities market: lessons from the US secondary market

Edward L. Golding⁷

The mortgage-backed security (MBS) market in the USA is second only to the Treasury market in size and trading volume. Ginnie Mae, Freddie Mac and Fannie Mae (the “agencies”) have USD 9.3 trillion in outstanding MBS (see chart 1). Bid-ask spreads are 3 basis points, and the annual trading volume is around USD 50 trillion. The securities are traded in a forward to-be-announced (TBA) market, with only six attributes of the MBS disclosed at the time of the trade:

1. issuer (e.g. Ginnie Mae)
2. maturity (e.g. 30 years)
3. coupon (e.g. 5.5%)
4. face value (e.g. USD 100 million)
5. price (e.g. 100 2/32nds)
6. settlement date (e.g. June delivery)

Chart 1

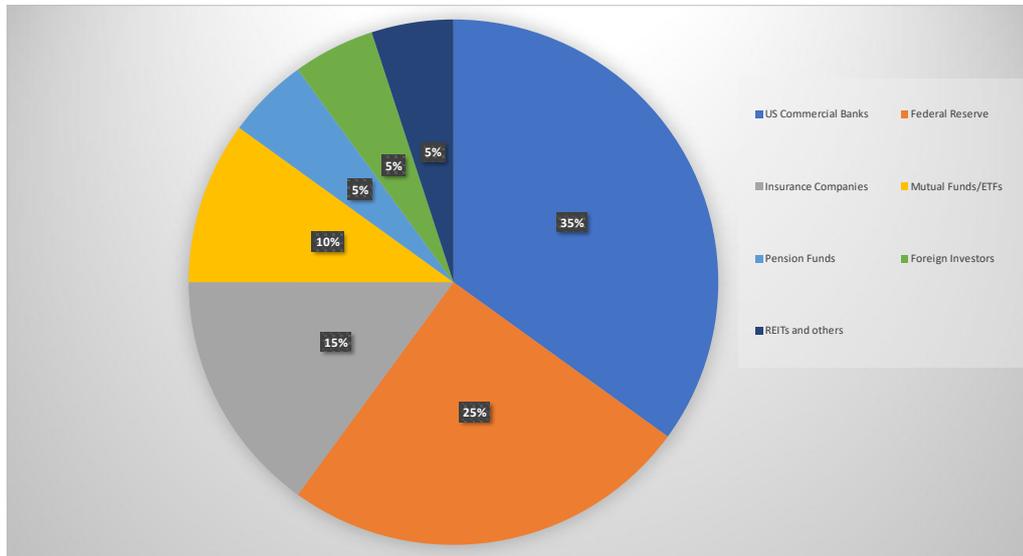


⁷ Non-resident Fellow at the Urban Institute. Opinions expressed by the author do not necessarily reflect the viewpoint of the Oesterreichische Nationalbank, the Eurosystem or the Urban Institute.

No information about the underlying mortgages is disclosed at the time of the MBS trade, yet the securities attract investors from across the capital market (see chart 2 for holders of MBS).

Chart 2

Holders of Agency MBS



The MBS market began in the 1970s with the establishment of Ginnie Mae (in 1968) and Freddie Mac (in 1970) and the reformation of Fannie Mae (originally founded in 1938). Below are the four major steps or ingredients in the evolution of the US MBS market. (See annex for a timeline of key dates in the development of the US mortgage market.)

Credible guarantee on timely payment of interest and principal

The MBS passes mortgage cash flows to the investor. Mortgages have two principal risks: credit risk and interest rate or market risk. Credit risk arises from the homeowner’s defaulting on the mortgage, often due to job loss. Interest rate or market risk arises from the value of cash flows changing with the market, predominantly from changes in interest rates. In the US MBS market, investors are quite willing to assume the interest rate risk for a price but will shun credit risk. This follows from the fact that no information about the credit characteristics of the underlying mortgages is available to investors at the time they purchase the MBS. Ginnie Mae-guaranteed MBS carry the full faith and credit of the US government. Freddie Mac and Fannie Mae guarantees have the “implicit” support of the government and are viewed by the market as almost as good as having full faith and credit. The implicit guarantee arose largely because the market believed that the US Department of the Treasury would not allow these government-chartered companies to fail. That perception was borne out during the global financial crisis, when the Treasury extended USD 200 billion of credit to each company.

Oversight and standardization of mortgages

Freddie Mac and Fannie Mae set the standards for the mortgages that they purchase and securitize (i.e. place into their MBS). In the 1970s, this standardization took the form of creating standard mortgage documents and thousands of pages of eligibility criteria that specified every detail of the origination process, e.g. how to compute borrower’s income or obtain a property appraisal. In the 1990s and early

2000s, standardization was streamlined through technology, e.g. automated underwriting systems. This standardization limits the credit risk of mortgages and makes it easier for the market to assess the interest rate risk in MBS. Ginnie Mae MBS are backed by Federal Housing Administration (FHA) and Department of Veterans Affairs (VA) mortgages, and the FHA and VA set the standards for their products although they often follow the standards set by Freddie Mac and Fannie Mae.

In addition to standardizing the mortgage product and origination process described above, the agencies also standardize the ongoing process of “servicing” the mortgage, i.e. the process of collecting payments and addressing delinquencies.

Oversight and standardization of the pooling of mortgages

An MBS is an aggregation or pool of mortgages, typically several hundred mortgages. To maintain the liquidity of MBS, standards need to be set as to which mortgages can be pooled into a security. Attributes such as loan size, loan age, loan purpose, coupon and many others are strictly defined. Non-typical or unusual mortgages, such as mortgages from large employers to facilitate relocating employees, are allowed in a pool up to a limit typically set at 15% of the pool. The goal is to allow for variation to meet the needs of homeowners while still having an MBS with predictable cash flows. It is worth noting that the securitization of long-term fixed rate mortgages has been more successful than the securitization of adjustable rate mortgages, which have proven more difficult to standardize.

Oversight and standardization of MBS trading

Once MBS are formed, there is still the question of which MBS are allowed in the TBA market. The Securities Industry and Financial Markets Association (SIFMA) sets standards for the TBA market in the USA. SIFMA prescribes the six attributes described above for a trade. Not all MBS are traded in the TBA market and Wall Street creates a market for specified securities. Often these trades will involve securities with lower interest rate risk, e.g. mortgages that are less likely to prepay when interest rates decline.

The MBS market evolved over many years. At the beginning, there was no oversight or standardization, and early MBS traded on a one-off basis, with bid-ask spreads of around one point. The process of developing the liquid market often required legislation, such as the Secondary Mortgage Market Enhancement Act of 1984, which preempted certain state laws.

Concluding comments

A well-functioning, liquid MBS market is constantly evolving. Recent developments in the USA include the combination of Freddie Mac and Fannie Mae securities into a single security; the rewriting of how to address delinquent mortgages that occurred during the COVID-19 pandemic; and the Federal Reserve's efforts to avoid disrupting liquidity when it purchased USD 3 trillion in MBS during quantitative easing. With each of these developments, there was a commitment to maintaining a well-functioning, liquid MBS market.

Setting and enforcing a host of standards is essential for a well-functioning MBS market. This starts with the standardization of the mortgage product and origination and servicing practices. Pooling and trading practices also require standardization and oversight. Importantly, this is not a one-time effort but an ongoing process that needs to be maintained as technology and markets evolve.

Annex

Year	Development of the modern US mortgage market
< 1929	Balloon mortgages were introduced by savings and loan associations (S&Ls, building societies).
1932	The Federal Home Loan Bank (FHLBank) System was established to fund S&Ls (covered bonds).
1934	The FHA was established to insure long-term fixed rate mortgages. The Federal Savings and Loan Insurance Corporation was established to protect deposits in S&Ls.
1938	Fannie Mae was established as a government corporation to buy FHA-insured loans.
1944	The VA loan program was created to guarantee loans to veterans.
1968	Ginnie Mae was established to insure MBS on FHA and VA mortgages. Fannie Mae was privatized and became a public company.
1970	Freddie Mac was established to provide a secondary market for S&Ls.
1970s	Ginnie Mae issued the first government MBS and Freddie Mac issued the first private MBS. Freddie Mac and Fannie Mae standardized the mortgage market with seller/servicer guides.
1980s	Freddie Mac became a shareholder-owned public company, and the S&L industry was bailed out.
1990s	Technology was used to standardize the mortgage market, e.g. automated underwriting.
2008	Freddie Mac and Fannie Mae were placed into conservatorship.

The Danish mortgage model as a model for more safe assets in the EU

Jesper Berg⁸

The financial crisis and the subsequent euro area debt crisis heightened interest in euro safe assets. Safe assets are defined as “a simple debt instrument that is expected to preserve its value during adverse systemic events.”⁹ During both the financial crisis and the euro area debt crisis, instruments that had earlier been seen as safe assets proved not to be. That applied to the government-sponsored enterprises’ (GSEs) mortgage-backed securities in the USA and many government bonds in the euro area.

Recent events show that safety is an elusive concept. There is no such thing as absolute safety.¹⁰ Many problems arise when assets shift from being safe assets to assets that require specialized knowledge to value. The fear of having less information than other market participants causes markets to freeze and creates uncertainty as to the financial position of the institutions holding these assets.

Banks are among the institutions that demand safe assets. In the extreme narrow banking model, the counterpart to deposits are safe assets. Safe assets in the narrow banking model traditionally consisted of short-term government bonds.

The euro area debt crisis showed that government bonds issued in a monetary union could be anything but safe. The doom loop (the result of domestic banks holding a large share of their sovereign’s debt) came close to wrecking the euro.

However, there are also other problems in making banks safe through holding presumed safe assets.

The first problem is the potential supply of safe bonds. Deposits in the euro area exceed 100% of GDP. Thus, deposits are well above the government debt limit of 60% of GDP in the euro area. And a significant share of government debt is long-term debt that would generate excessive market risk for a bank. Even if all euro area public debt was safe assets, it could not match the deposits.

The second problem is the role of banks in the economy. If we required banks to hold short-term treasuries to match their deposits, we would say farewell to the traditional credit creation function of banks: transforming deposits into loans. Bank credit creation is an important element in the financing of households and corporates. It creates welfare, however, admittedly with risks.

Therefore, we should accept a world with a limited, but diversified, supply of assets that are normally safe, and where banks must manage their risk of being intermediaries to the benefit of economic development.

Covered bonds can contribute as assets that are normally safe, depending on their design.

A covered bond is a debt security issued by a credit institution that offers investors extra guarantees for reimbursement because investors have a claim against both the bank and a pool of high-quality assets (like mortgages or public sector loans) that are set aside to back the bond.

⁸ Former head of the Danish Financial Supervisory Authority; fellow, Bruegel and Copenhagen Infrastructure Partners Foundation; Associate Professor, University of Copenhagen and Copenhagen Business School. Opinions expressed by the author do not necessarily reflect the viewpoint of the Oesterreichische Nationalbank, the Eurosystem or the institutions the author is affiliated with. I am grateful for comments from Hans Geeroms. All errors and omissions are my responsibility.

⁹ Caballero and Farhi (2017).

¹⁰ Brunnermeier et al. (2024).

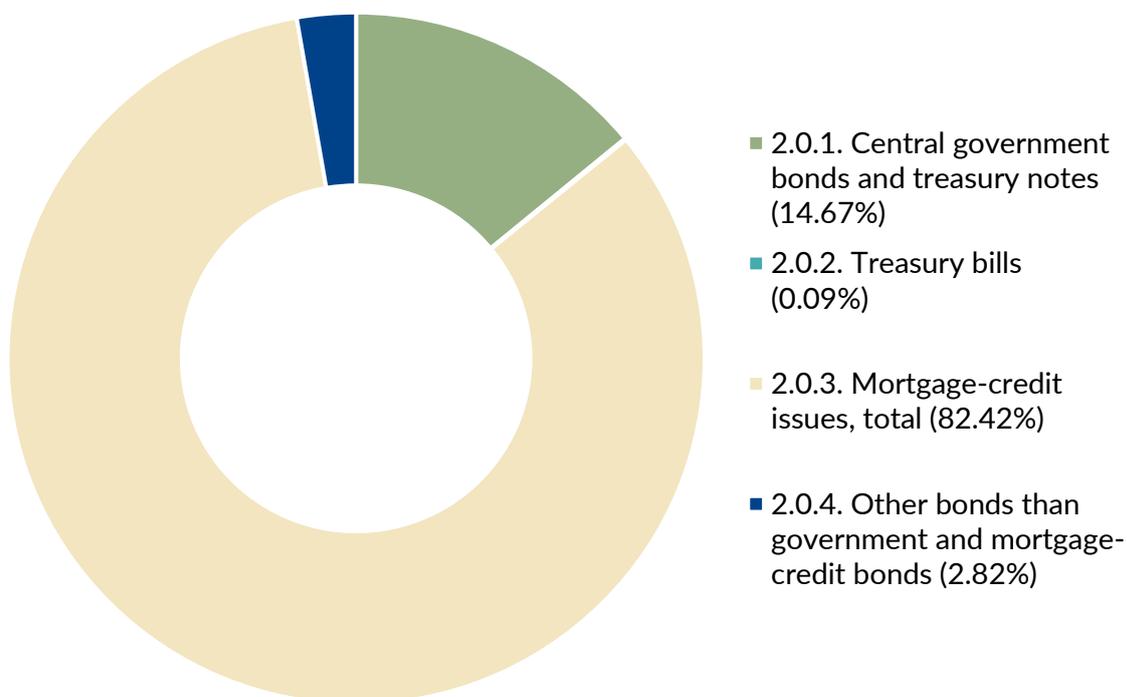
The purpose of this paper is to describe the Danish covered bond system and compare it to US mortgage-backed securities. The Danish covered bond system has several features that make these bonds good candidates for safe assets. Most of these features are replicable by other EU countries and thus have the potential to increase the amount of safe assets in the EU, make credit more available and develop capital markets. The paper briefly touches on monetary policy implications, but this is not the core of the paper.

The land of covered bonds

Danish covered bonds both dominate the bond market in Denmark and fund more credit in Denmark than normal commercial banks. Outstanding covered bonds at the end of the first quarter of 2025 amounted to around 150% of GDP or more than five times the volume of outstanding Danish government bonds (see chart 1). Covered bonds finance two-thirds of all credit in Denmark.

Chart 1

Distribution of outstanding bonds in Denmark at end Q1 2025

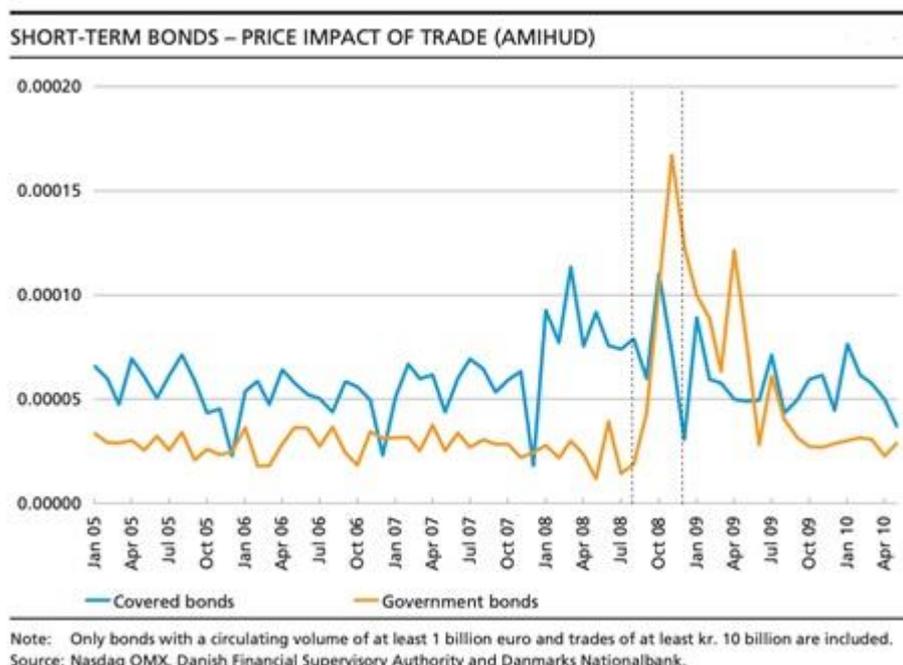


Source: Danmarks Nationalbank.

Danish covered bonds proved more liquid than government bonds, as measured by the price impact of a trade, in the years after the great financial crisis (see chart 2).¹¹ This earned them the status of tier 1B liquid assets, subject to certain requirements, in the EU implementation of the liquidity coverage ratio.

¹¹ Here shown for short-term bonds.

Chart 2



Historically, Danish covered bonds and the associated mortgage loans were mostly 30-year fixed rate annuity bonds with a conversion option and amortizations.¹² However, over the last 30 years, adjustable rate mortgages and interest-only mortgages have come to play a prominent role.

The Danish mortgage system

There are two particularly important features of the Danish mortgage system:

1. Mortgages are mostly granted by stand-alone financial institutions that do not take deposits but finance themselves by issuing covered bonds.
2. The covered bonds match the cash flow of the loans in accordance with the so-called balance principle.

The mortgage banks are like the lending arms in a narrow banking system. As they finance themselves by covered bonds, they are not subject to run risk.

The intention of the balance principle is to also remove liquidity risk and market risk.¹³ The only risk left is credit risk. This makes sense as credit risk is the most opaque risk and should be left with the originator. The credit risk is limited by loan-to-value (LTV) limits, among other things.

The matching of loans with bonds contributes to transparency. The rate charged on mortgage loans is the interest rate on the bonds plus a margin to cover losses/capital and administrative costs. The

¹² The conversion option allows the borrower to redeem the loan at par, when the underlying bond trades at par or above, refinancing the loan with a lower interest rate loan.

¹³ "Intention" is used because liquidity risks have been introduced with the introduction of adjustable rate mortgages and EU legislation on the continuous observance of loan-to-value (LTV) limits.

mortgage loans can be redeemed by buying the matching bonds and, in the case of fixed rate mortgages, also at par.

Most Danish mortgage bonds are rated AAA. The rating agencies' required overcollateralization is generally in the single percentages and significantly below that of other issuers in the EU. The low overcollateralization reflects credit quality, and not least the absence of market risk and the presence of limited liquidity risk.

Comparison to the US system

At first sight, the Danish mortgage system resembles the US system. Both are unusual in an international context, as they offer fixed rate 30-year bonds with a conversion option. They are also unusual in that they are financed by matching bonds.¹⁴

However, there are also some fundamental differences. In Denmark, the credit risk stays on the books of the originator. In the USA, the originator sells the mortgages to either the GSEs or other issuers of mortgage-backed securities. There are no implicit or explicit government guarantees in Denmark as opposed to the GSEs.

For the consumer, the Danish system offers at least three advantages:

1. There is normally no need for a new credit approval if you want to refinance.
2. You can redeem your loan at current market prices.
3. Loans are assumable, i.e. the buyer of a house can take over the seller's loan.

This partly reflects that credit risk, but not market risk, stays on the balance sheet of the originator. The originator has an interest in the debtor's refinancing into a lower interest mortgage, as this reduces credit risk.

The price for the consumer is that he or she also contributes to a safer system through strong creditor protection. You are personally liable for your loan even after a foreclosure, if the foreclosure has not generated enough funds to repay the mortgage. This partly reflects a German/Scandinavian legal tradition and partly that mortgage banks were initially mutuals with joint liability. In the USA, the dominant practice is known as "jingle mail," where the borrower returns the keys to the lender's mailbox and is subsequently free from any remaining obligation on the mortgage.

Foreclosures in Denmark are swift. They usually take six months or less. They are backed by a social safety net, where the local community has a rehousing obligation. In the USA, the social model is different; there is no safety net but an easier way – without debt – to recover.

The Danish mortgage system managed to sail through the great financial crisis fairly unshattered as opposed to the US mortgage system. This was despite the fact that house prices declined at least as much in Denmark as in the USA.

Monetary policy implications

There are at least two monetary policy implications of moving toward a covered bond system as seen in Denmark.

The first is that the universe of pledgeable securities and safe assets, more generally, is expanded.

¹⁴ Berg et al. (2017).

The second is the transmission of monetary policy. The immediate effect is that monetary policy is more rapidly transmitted as banks' adjustment of margins does not delay transmission.

However, the transmission of monetary policy also depends on whether the mortgages are fixed rate or variable/adjustable. While the transmission is more rapid in the latter case, this may not always be a blessing.

A good example is the different experience of the UK and Sweden, on the one hand, and Denmark, on the other hand, during the exchange rate mechanism (ERM) crisis in the early 1990s. The UK and Sweden had mostly variable rate/adjustable rate mortgages, whereas Denmark had mostly fixed rate mortgages. Defending the exchange rate required substantial increases in monetary policy rates. This was more difficult in the UK and Sweden than in Denmark because of the consequences for the housing market and subsequently financial stability.

Final remarks

Many observers, including the Economist, market participants and academics, have pointed to the Danish mortgage system as a possible source of inspiration for the USA in reforming its broken system.¹⁵

It would be ironic if EU countries looked across the Atlantic for inspiration on how to expand the sphere of safe assets rather than seek inspiration within the EU.

The Danish mortgage system has copyable features. The biggest issue is probably how far you are willing to go in creditor protection. This is closely linked to the social model of the individual countries.

If you are not willing to go the full distance, you need other compensating features. The most likely candidate is higher capital requirements.

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¹⁵ Campbell (2012).

Europe vs. the USA: a gap in mortgage securitization

Markus Schwaiger¹⁶

The scale of mortgage-backed securities (MBS) markets in the USA and the EU show a different order of magnitude. In the USA, at the end of 2023, total outstanding mortgage loans amounted to approximately USD 20 trillion, with a significant share – slightly more than half – securitized into MBS.¹⁷ In contrast, the European mortgage market was considerably smaller, with around EUR 5 trillion in outstanding loans, of which only about 10% were securitized.¹⁸

Issuance of residential mortgage-backed securities (RMBS) in the EU remains highly concentrated, both geographically and institutionally. Approximately 75% of all EU RMBS are backed by mortgages originated in just four countries: Spain, Italy, France and the Netherlands. Moreover, a limited number of institutions dominate the market, with ten banking groups, primarily large lenders based in Spain, France, Germany, Italy and Netherlands, accounting for two-thirds of total issuance. A similarly narrow set of banks holds over 80% of the outstanding RMBS stock. This concentration underscores the limited breadth of both the market and its investor base. A large share of these instruments is retained by issuing banks, often for use as collateral in refinancing operations (ESRB, 2022; ESMA, 2023).

The substantially greater role of MBS in the US mortgage market can be explained by several key factors in which the EU lags behind. Central to the US system is the role of government-sponsored enterprises (GSEs). They first purchase eligible mortgages from lenders, then securitize them and finally provide credit guarantees on the resulting securities. These agencies impose strict standardization and thereby achieve scale: only relatively homogenous, conforming loans are included in their pools, and investors rely on the GSE guarantee. This framework supports deep market liquidity, tight pricing spreads and easy investor access and exit (Vickery and Wright, 2014). In contrast, the EU lacks a comparable institutional setup; there are no GSE-style entities to enforce standardization, provide guarantees or underpin market infrastructure. Generally, the European MBS market remains fragmented, less liquid and dependent on a narrower investor base.

Structural barriers in the EU mortgage market

An important distinction is the legal fragmentation across the euro area. Mortgage contracts, foreclosure procedures and insolvency rules are still written in 27 different national laws. These variations make it difficult to bundle loans from different countries into a single security, because investors find it hard to accurately price the risks of cross-border pooling. As such, a harmonization of contract and insolvency laws would support the standardization of loan contracts and give investors equivalent safeguards across the EU (ECB, 2025).

The lack of cross-border asset pooling in Europe limits the diversification of MBS structures, undermining the risk profile of senior tranches that are highly sensitive to correlated defaults. Even when underlying mortgage loans have low default probabilities, limited diversification amplifies risk within a national portfolio. This increases the likelihood of simultaneous defaults. MBS structures remain fragmented

¹⁶ Oesterreichische Nationalbank, Department for Financial Stability and the Supervision of Less Significant Institutions. Opinions expressed by the author do not necessarily reflect the viewpoint of the Oesterreichische Nationalbank or the Eurosystem.

¹⁷ Data from the Fed St. Louis and Bloomberg.

¹⁸ Data from the ECB.

along national lines, with diverging yields that reflect the varying risk profiles of country-specific pools. In sum, the EU MBS market is characterized by a lack of scale and diversification.

What covered bonds can and cannot do

This lack of legal and structural integration is widely seen as a major obstacle to the development of an efficient European MBS market. However, the EU has already demonstrated that meaningful harmonization is achievable in a comparable domain. The adoption of the Covered Bond Directive (CBD) in 2019, and its full implementation by mid-2022, established a unified legal framework for covered bonds across member states. The directive introduced a standardized definition and key structural elements, including dual recourse and bankruptcy remoteness, as well as common criteria for asset eligibility, loan-to-value (LTV) limits and a minimum overcollateralization level. It also enhanced liquidity risk management through a mandatory 180-day liquidity buffer and introduced stricter supervisory and transparency requirements. Investors responded favorably to the more consistent and credible regulatory environment, which has supported increased issuance volumes and contributed to a narrowing of spreads across jurisdictions. Crucially, the directive strikes a balance between EU-wide harmonization and flexibility to account for national legal specificities.¹⁹

Given that both covered bonds and MBS are backed by mortgage assets, and that covered bonds are a well-established and trusted instrument in Europe, it is legitimate to ask why greater emphasis should be placed on MBS. While covered bonds serve as a stable and strictly regulated funding tool, their structure inherently limits their capacity to support balance sheet expansion or broader capital market development. Since the loans remain on the issuing bank's balance sheet, credit risk is not transferred to external investors, and the bank's ability to free up capital and liquidity for new lending is constrained. In contrast, MBS allow for true risk transfer by selling loans to a special purpose vehicle (SPV), enabling originators to reduce risk-weighted assets and expand lending capacity. That said, securitization structures require robust safeguards to ensure sound underwriting and aligned incentives. Covered bonds offer greater stability, investor protection and crisis resilience, but they are less suited for achieving the scale of credit risk distribution and capital market deepening that a well-functioning MBS market could deliver (Deutsche Bank Research, 2024).

Regulatory framework of the securitization market

Within the European securitization market, there has also been significant progress toward standardization and higher investor confidence. The "simple, transparent, standardised" (STS) label was implemented via the Securitisation Regulation (EU) 2017/2402 to rehabilitate securitizations as a high-quality product. Transactions that comply with a detailed set of criteria – focused on structural simplicity, asset transparency and documentation standardization – are eligible for the STS designation. The objective is to distinguish these transactions from the opaque and overly complex structures that contributed to the US subprime mortgage crisis, thereby rebuilding market trust. STS-labeled securitizations benefit from preferential regulatory treatment, including lower capital charges for banks and insurance companies, in recognition of their enhanced transparency and perceived lower risk profile (ESMA, 2023).

¹⁹ Directive (EU) 2019/2162 of 27 November 2019.

In addition, in 2021, the STS framework was extended to certain on-balance sheet synthetic securitizations (for capital risk transfer). The uptake of STS indicates that a large share of new European securitizations are being designed with these high standards. For example, all publicly placed RMBS issuances in the Netherlands and France in recent years have sought the STS label. The STS regime thus provides a common quality benchmark across Europe, which should help make MBS more comparable and “plug-and-play” for investors. Hence, the label contributes to enhancing trust and market confidence, thereby supporting lending growth (ESMA, 2023).

On June 17, 2025, the European Commission proposed targeted reforms to revive the EU securitization market as part of its savings and investments union strategy. The proposal responds to the persistent underdevelopment of the market and calls from both EU leaders and industry to unlock Europe’s potential for funding and capital market integration. Key measures include lowering capital requirements for banks holding high-quality (STS) securitizations and simplifying due diligence and reporting rules. The goal is to reduce regulatory burdens, enhance risk sensitivity and unlock more funding for households and businesses (European Commission, 2025).

Proposal for a European securitization platform

In early 2024, a French treasury-commissioned expert group chaired by Christian Noyer (former Governor of the Banque de France) delivered a report calling for a European securitization revival. A key recommendation is to establish a European securitization platform that would bundle high-quality mortgage loans across the EU, structure MBS, thereby creating a uniform asset that investors across Europe could trust (Noyer, 2024).

To ensure investor confidence, a public guarantee that only covers senior tranches could be jointly provided or facilitated at the European level. By enhancing credit quality and standardization, this could significantly broaden the investor base for MBS. Proponents argue that such a common safe MBS would both deepen capital markets and furnish the EU economy with more funding. Notably, the Noyer report suggests this platform focus on prime mortgage securitizations to ensure the underlying asset quality is strong and guarantees are rarely, if ever, called on (Noyer, 2024).

Addressing the underlying problems rather than taking a shortcut

A well-established pan-European MBS market could significantly strengthen the role of capital markets. By enabling banks to transfer mortgage assets off balance sheet, such a market would free up capital and liquidity, allowing for additional lending or investment. It would also help to distribute credit risk more broadly, both across the financial system and within the structure of the securities themselves, potentially leading to more resilient institutions. If properly designed, a European MBS platform could deepen financial integration and potentially lead to lower financing cost.

However, the potential benefits must not come at the cost of financial stability. Relying on regulatory incentives or public guarantees to jump-start securitization could distort market discipline. To avoid repeating the mistakes of the past, reforms must tackle structural impediments first: harmonizing insolvency and mortgage regimes to enable standardization and scale, setting prudent lending criteria such as loan-to-value (LTV) limits, and ensuring transparency and simplicity in securitization design. Most importantly, the framework must align incentives to reward sustainable practices and prevent excessive risk-taking. Complementary progress toward a European savings and investments union would also help by broadening the investor base.

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