

E SECURITISATION IN THE EURO AREA

Securitisation has become an increasingly important element of structured finance and has seen rapid development in recent years. In light of the tumultuous events in financial markets since August 2007, however, the securitisation process has come under increasing scrutiny. This special feature explores the securitisation process from a supply-side perspective, highlighting the benefits and drawbacks of this approach. An overview of developments in the market, in the context of the recent turbulence, is also provided. A new source of data on securitisation is then introduced and results on emerging trends in the market are highlighted.

INTRODUCTION

The process of securitisation involves the transformation of illiquid financial assets into liquid, tradable securities, thereby widening participation in the capital markets and allowing risk to be transferred to those willing to bear it. Securitisation has seen rapid development in recent years. It has, however, been identified as a source of the current financial turmoil, and while the ultimate causes of the current turbulence are far deeper than the securitisation of sub-prime assets, the latter has certainly been a catalyst.

Securitisation facilitates the transfer of risk from originators to other participants in structured credit markets.¹ The transfer of credit risk has several implications. Regulatory capital arbitrage is an important motive for securitising assets, which is especially relevant for assets of higher quality, given that under Basel I capital charges for higher-rated assets are higher than for securitised assets. Furthermore, the liquidity facilities offered by originators to special-purpose vehicles are not subject to Basel I capital charges, thereby providing banks with the possibility of extending new loans. Securitisation also allows non-liquid assets to be converted to cash relatively quickly and inexpensively. Another important advantage of securitisation is the absence of credit risk for

the originator of the securitised assets, as the financial vehicle corporation (FVC) used to issue the securities is completely separated (and thus bankruptcy-remote) from the sponsoring bank. As a consequence, investors only have exposure to the securitised assets and are not impacted by risks emerging from other activities. This bankruptcy-remoteness reduces the FVC's cost of funding. The process also offers benefits to investors. By transferring risk, investors can assume exposures that may otherwise be unavailable, a possibility that is useful for diversifying asset portfolios. Asset and liability characteristics of FVCs can be tailored to the needs of originators. An additional advantage for investors in buying asset-backed securities (ABSs) is that these assets are classified as eligible collateral for open market operations and can easily be made liquid. Securitisation may also fulfil a valuable price discovery function – provided that there is transparency concerning the securitised assets and that they are traded in liquid markets – as illiquid assets are transformed into well-priced tradable assets, enhancing the efficient allocation of capital in the financial system. If there is enough transparency concerning risk, securitisation can facilitate a redistribution of that risk within the financial sector. As banks have greater possibilities to tailor the risk profiles of their balance sheets, financial stability can, in theory, be enhanced.

However, the interaction of supervision and accounting regulations with growing financial sophistication and the increasingly pivotal role of rating agencies has magnified some of the negative aspects of the model of securitisation, namely a spurious transfer of credit risk, a lack of transparency in the credit quality of securities

¹ A full discussion of the benefits and drawbacks of the securitisation process, the originate-to-distribute model and the role of special-purpose vehicles is beyond the scope of this special feature; see instead ECB, "Credit risk transfer by EU banks: activities, risks and risk management", May 2004, ECB, "Securitisation, bank risk-taking and loan supply in the euro area", *Financial Stability Review*, June 2008, ECB, "Securitisation in the euro area", *Monthly Bulletin*, February 2008, and D. Marqués Ibañez and M. Scheicher, "Securitisation: instruments and implications," in A. Berger (ed.), *Handbook of Banking*, Oxford University Press, Oxford, forthcoming.

and an unreliable evaluation through models or the secondary market. The ultimate causes of these problems can be traced to the weaknesses which are inherent in the model and result from asymmetric information and a misalignment of incentives.

On account of the benefits of the model, however, the market for ABSs grew rapidly in the past few years and its size became very significant in comparison with other fixed income markets. In the United States, the total amount outstanding of structured products is estimated to stand above USD 9.7 trillion. By comparison, the size of the Treasury market is USD 4.5 trillion. In Europe, the size of the ABS market is believed to be €1.3 trillion, compared with the €4.8 trillion outstanding in euro-denominated government bonds.

That rapid growth, however, led to an increase in the vulnerabilities in the financial system. The short-term nature of financing through this market represented a risk, particularly through active maturity transformation, where illiquid long-term assets are funded through the sale of short-term securities. Such concerns may be heightened during the late stages of the economic cycle, when credit risk may increase, or when banks may have overextended themselves in their (direct or indirect) exposure to short-term securities. It is now clear that by August 2007, these risks had become acute against the background of abundant liquidity, low interest rates, exceptionally low and persistent financial market volatility and the widely held belief that risk had been under-priced for some time.

Latterly, the continued rapid growth in the volume of outstanding short-term securities in both Europe and the United States has coincided with monetary policy tightening cycles. In the United States, after a long period of unusually low interest rates – bottoming for almost a year at 1% from mid-2003 – rates were raised in 17 steps to 5.25%. In the euro area, after more than two-and-a-half years of historically low interest rates, at just 2%, rates were raised in eight consecutive steps to 4% in little

more than a year. It can be argued that these tightening cycles increased the cost of funding through short-term securities, putting further stress on underlying long-term assets financed through that medium. In addition to maturity transformation, which was a primary source of risk, a second source of vulnerability was the rising cost of funding along the curve.

During the summer of 2007, the short-term security market was impacted significantly by the sharp reduction of outstanding amounts in the United States. The peak coincided with the start of the turmoil in August 2007, as the maturing securities could not be rolled over. The start of the market turmoil centred on the issue of ABSs, credit concerns and increases in banks' liquidity needs. The three dimensions of the emerging crisis were closely correlated, which remains the case. The lack of financing through short-term securities created a financing gap as the underlying long-term assets previously funded by short-term securities still needed to be financed. This gap exerted pressure on the FVCs, some of which had to deliver the underlying assets to sponsoring banks. Others had to draw on the back-up credit line provided by banks. In both cases, the funding needs were ultimately transferred to the balance sheets of these banks, triggering a significant increase in the banks' liquidity needs. The magnitude of the phenomenon induced market participants and rating agencies to question and review the creditworthiness of many institutions and their ability to withstand further liquidity shocks. This adversely affected perceptions of the strength of the banking sector as a whole.

Although the problem initially originated in the United States, the global distribution of asset-backed paper and the global inter-connections within the banking system soon turned it into a global phenomenon. The funding gap created by the reduced issuance of short-term ABSs in the United States and Europe was substantial, so it is fair to assume that most of the funding requirement has been transferred to the banking system. These pressures have materialised in the sharp increases of the unsecured borrowing

rates for the major currencies. This has led to a significant widening of the spreads between secured and unsecured money market rates. A further significant decline in banks' asset prices could lead to a situation of mounting bank losses, liquidity problems and increased borrowing costs, all possibly coinciding with a time of generally challenging financial market conditions, and therefore posing significant risks to the financial system as a whole.

Having outlined some of the features of the market for securitisation, the remainder of this special feature quantifies observed changes in the market using available data sources. These sources are introduced in the next section.

DATA SOURCES²

A critical issue identified by policy-makers is the lack of sufficient data on credit risk concentrations, which hinders policy-makers' assessment of the implications of the turmoil and actions to ensure a timely response. Apart from the commercial data providers, the European Securitisation Forum (ESF) is currently the most commonly used, publicly available source of data on securitisation in Europe. The ESF has provided data on new European securitisation since autumn 2001 and on outstanding amounts since the summer of 2007. The data cover those securities for which collateral originates in a European Union (EU) country; for collateralised debt obligations (CDOs), data are provided only on euro-denominated issuance, regardless of the country of collateral. The data, therefore, cover all securitised assets issued worldwide that are backed by EU collateral. The ESF publishes a quarterly market data report, making available total aggregate values by country, by collateral and, more recently, by rating category. The ESF collates data through voluntary disclosures by financial institutions; the information on new issuance is then retrieved through Bloomberg data services, using the ISIN of the asset issued.

In parallel, the European Central Bank (ECB), in cooperation with the national central banks of the European System of Central Banks

(ESCB), has identified resident FVCs, with the aim of retrieving information on their issuance of securities.³ The ECB has thus established a provisional list of European FVCs as at end-2006 and end-2007.

By combining these two sources, using ISIN codes as a matching device, it has been possible to provide a broader picture of securitisation in the EU, hitherto unavailable. The two data sources have complementary characteristics. While the ESF data covers assets secured on EU collateral, it does not cover issuance on non-EU collateral. Conversely, the FVC data cover all securitised assets issued in the EU, regardless of the origin of collateral.

SECURITISATION IN THE EURO AREA AFTER THE TURMOIL

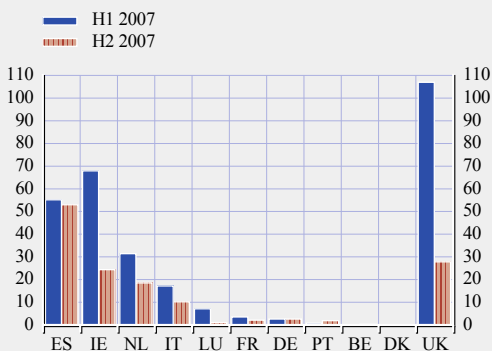
Securitisation in the euro area was less affected by the eruption of the turmoil than that in non-euro-area EU countries. In the second half of 2007, issuance in the euro area dropped by 38.6% to €114.1 billion, whereas that in other EU countries, most of which was accounted for by the United Kingdom, decreased by 74% to €27.8 billion (see Chart E.1). Moreover, in some countries, in particular Spain, there was little evidence of issuance being in any way negatively affected by the turmoil; new securitisation there remained at the same level in the second half of 2007. On account of these developments, the share of new issuance of euro area countries in total new EU securitisation increased from 63.5% in the first half of 2007 to 80.4% in the second half. The fact that issuance in the euro area was less affected by the turmoil than that in the United Kingdom may be related to the eligible collateral policy of the ECB's open market operations, where banks can obtain liquidity in exchange for highly rated ABSs. Thus, on account of challenging liquidity and

2 For further details, see P. Poloni and J. Reynaud, "How to measure credit risk transfer in the EU," presented at the Fourth IFC Conference "Measuring Financial Innovation and its Impact", Basel, August 2008.

3 This development was also prompted by the forthcoming regulation of FVCs and the desire to broaden harmonised euro area statistics on securitisation by 2010.

Chart E.1 New securitisation in the EU, broken down by country of issuance

(H1 2007 – H2 2007; EUR billions)

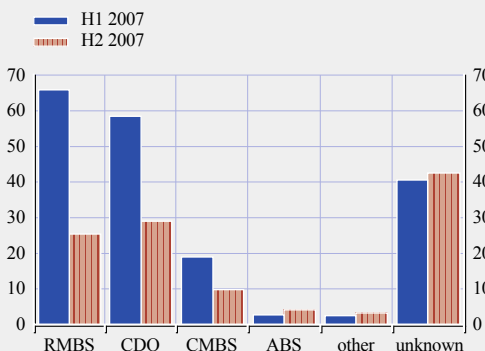


	H1 2007	H2 2007
Total EU	292.9	141.9
of which EA	185.9	114.1

Sources: ECB, European Securitisation Forum and ECB calculations.

Chart E.2 New securitisation in the euro area, broken down by type of security

(H1 2007 – H2 2007; EUR billions)



Sources: ECB, European Securitisation Forum and ECB calculations.

funding conditions after the turmoil erupted, banks issued ABSs and, in particular, residential mortgage-backed securities (RMBSs) with the intention of keeping them on their balance sheets. The most highly rated tranches could then be easily used to access the liquidity provided by the Eurosystem.⁴

Regarding the breakdown of instruments by type, the data revealed that in the euro area, the decline in issuance was similar in magnitude for CDOs and commercial mortgage-backed securities (CMBSs); issuance increased slightly in the consumer ABS segment, but decreased substantially in the case of RMBSs (see Chart E.2). It cannot be excluded, however, that a large amount of issuance that could not be classified was accounted for by securities backed by mortgages. The actual decline in issuance of RMBS, may, therefore, have been less pronounced than the data indicate. This conclusion is confirmed by data from other sources, including those provided by the ESF.⁵ These sources report clear evidence of investors' preferences for the simplest structured products, including collateralised loan obligations (CLOs) and various types of ABSs; more complex products, such as CDOs, were discriminated among investors.

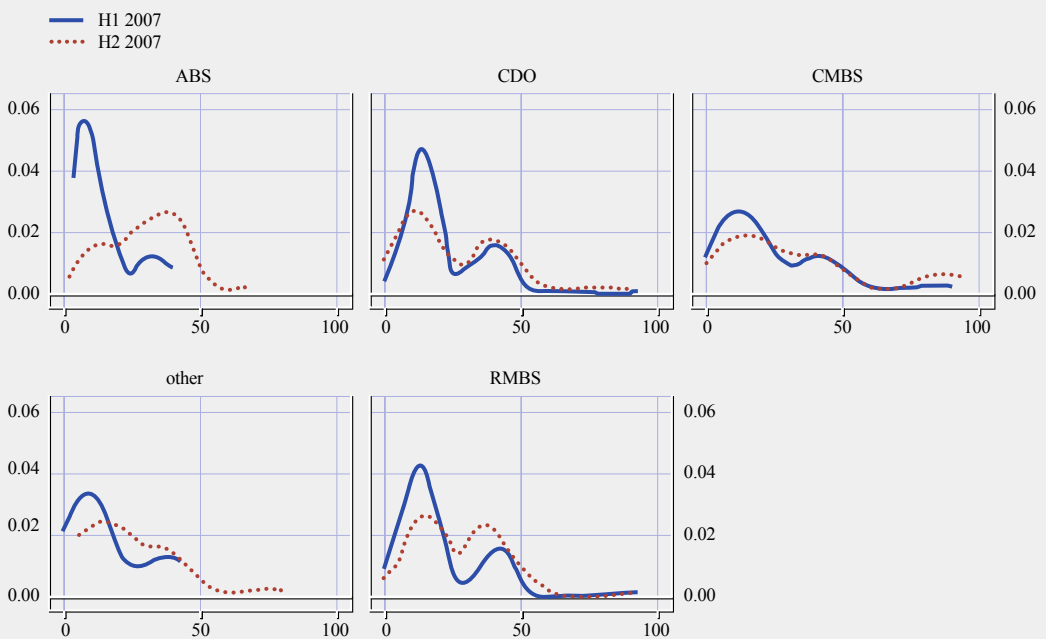
Since the data include both issuance and maturity dates, it was possible to determine the maturity profile of each instrument and to observe its evolution from the first half of 2007 to the second half of 2007. The kernel density functions of the initial maturities revealed that the two typical maturity periods for RMBSs issued in the euro area were 15 years and 40 years. CDOs were characterised by a similar maturity pattern, which suggests that these structured securities were backed mostly by RMBSs. CMBSs were marked by the longest maturities; the maximum density, however, was close to the ten-year maturity. On the other hand, ABSs were characterised by the shortest maturities – around five years. Nevertheless, maturities of ABSs issued in the second half of 2007 increased substantially. Other types of structured credit securities were characterised by increasing original maturities (see Chart E.3).

4 See also Box 3 in ECB, "The impact of traditional true-sale securitisation on recent MFI loan developments", *Monthly Bulletin*, September 2008.

5 See The Securities Industry & Financial Markets Association (SIMFA), "ESF Securitisation Data Report – Q2, 2007", and SIMFA, "ESF Securitisation Data Report – Q4, 2007".

Chart E.3 Kernel density functions of the original maturity, broken down by type of security

(H1 2007 – H2 2007)



Sources: ECB, European Securitisation Forum and ECB calculations.

This may be explained by the investors' preference for repackaging mortgages and loans of longer maturities, which should, on average, be less risky on account of the lower repayment burdens on households. Lower monthly payments make the financial buffer of a household higher, and thus the probability of default lower. In this regard, extending the maturities of loans is a measure of the improved performance of ABSs. Issuers, who were seeking to restore investor confidence, repackaged the mortgages and loans of longer maturities in the second half of the quarter. It is worth noting, however, that securities with longer maturities are generally more volatile with respect to changes in interest rates, a result of the stronger impact of discount factors used when calculating the current discounted value of future cash flows from credit security payments. By mid-2008, the price volatility risk of these credit securities had not materialised, as the ECB reference rate had changed little since the beginning of the turmoil. Nevertheless, as investors are now more exposed to that risk, due

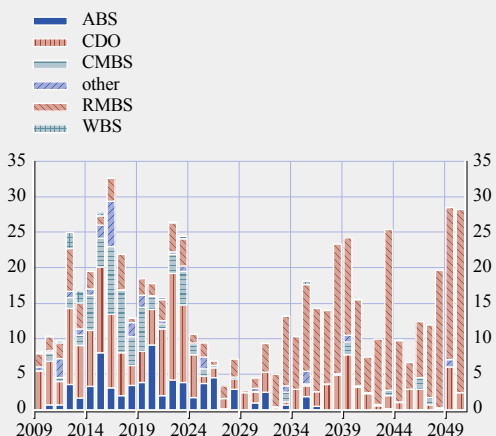
to longer maturities of credit securities, this may prove to be relevant in the period ahead.

The breakdown of amounts outstanding of securities by remaining maturity and type revealed some additional information on the period when the bulk of the outstanding volume of particular types of securities will mature (see Chart E.4). Most of the volume of RMBSs outstanding will mature beyond the year 2030. Most of the volume of CDOs, however, will mature by 2024. This suggests that most RMBSs with relatively short maturities have been repackaged into CDO structures. Thus, investors in RMBSs are most exposed to the price volatility risk, which may be relevant for the banking sector; the bulk of these assets have now been retained on bank balance sheets. Banks are subject to fair-value accounting, and thus have to mark the value of credit securities held on their balance sheets to market.⁶ Apart

⁶ More recently, some easing of fair-value accounting regulations has been approved by the International Accounting Standards Board as part of wider plans to support the financial system.

Chart E.4 Securitisation amounts outstanding in the euro area maturing in particular years, broken down by type of security

(amounts outstanding as at end-2007; EUR billions)



Sources: ECB, European Securitisation Forum and ECB calculations.

long maturities, the discounting factor may be even more important for the price of securities than the performance of the underlying mortgages.

Since the analysis is based on security-by-security data, it can be linked to the data in the external databases of rating agencies, so as to observe the rating history of each security. The quality of the securities, in terms of the rating category, was found, on average, to be very high. Almost half of all securities were rated double A or higher when they were issued, while two-thirds were rated A- or higher. Slightly more than 6% of the securities were rated CCC+ or lower. The rating migration matrix, which combines the information on the initial ratings on the date of issuance with the current ratings, revealed that up to mid-2008 there was little evidence of significant downgrades (see Table E.1). The securities impacted most were those with initial ratings of single A – 17.5% of which had been

from the housing price risk and the credit risk involved in RMBSs, such securities are also exposed to interest rate movements. For very

Table E.1 Rating migration matrix for euro area structured credit securities

(percentage of total by issuance rating; rating as of mid-2008)

	Initial rating																			
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	NR
AAA	90.3	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	0.9	71.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	3.2	9.5	96.3	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	0.0	0.0	0.0	72.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	0.0	0.0	2.4	0.0	67.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	0.0	0.0	0.0	9.1	25.0	89.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A-	1.2	0.0	0.0	9.1	2.5	5.2	85.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB+	0.0	0.0	0.0	0.0	2.5	0.0	15.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.6	92.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB-	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	93.8	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	50.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	2.1	0.0	1.2	0.0	2.5	5.2	0.0	0.0	0.0	3.1	33.3	86.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0
B-	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	100.0	0.0	0.0	0.0	0.0	0.0
CCC+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
CCC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.3	10.0	0.0	0.0
CCC-	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	16.7	80.0	10.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0
C	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	100.0
NR	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Sources: ECB, DCM Analytics, European Securitisation Forum, Moody's and ECB calculations. Note: "NR" denotes "not rated".

downgraded, with one-quarter thereof being downgraded by more than one category. In most other rating categories, the share of securities downgraded ranged from 7% to 12%. In the triple and double-A categories, downgrades were less severe. In the lower rating categories, however, the rate of downgrades was outweighed, to some extent, by upgrades.

The relatively low rates of downgrades of securities issued in the euro area suggest that they have been relatively resilient thus far, in spite of the ongoing market stress. This implies that the loans underlying these securities have performed relatively well.

CONCLUDING REMARKS

The securitisation process was subject to increased scrutiny in 2007 and 2008, not least due to its perceived role in the emergence of the financial turmoil. Based on new sources of data, introduced in this special feature, several conclusions can be drawn.

First, the lack of sufficient statistical data on credit risk transfers has emerged as an important issue for both central banks and the financial industry, as asymmetric information and a misalignment of incentives have been identified as inherent weaknesses in the securitisation model.⁷

Second, various market segments have borne the brunt of the crisis: in the CDO market, only multinational issuance remains unaffected; the United Kingdom and Ireland appear to have suffered the steepest declines, which may be related to their status as the largest issuers; regarding maturities, while there is a clear shift to longer-term issuance, it will remain difficult to transform maturities, so that a peak can be expected in five to ten years.

Third, since the turmoil erupted in August 2007, investor preference has shifted towards securities with longer maturities. Although this may indicate that the performance of underlying loans and, in particular, mortgages may thus

improve on account of the lower repayment burdens of borrowers, it may have further exposed investors to price volatility risk, which should be managed adequately.

Finally, up to mid-2008, there has been little evidence of any significant rating downgrades of securities issued in the euro area. This results from the fact that, on average, the performance of the underlying loans has been substantially better than the sub-prime mortgages originated in the U.S. Nevertheless, the ongoing tensions in credit markets and the potential continuation of the downward trend in house prices in the euro area may adversely affect the performance of mortgages further, which could negatively impact ratings in the period ahead.

⁷ While it may be argued that the complexity of these markets hampers the collection of comprehensive statistical data, this special feature has shown that initiatives can provide important data on this market segment; market complexity itself is not a barrier to the compilation of data.