

Box 3

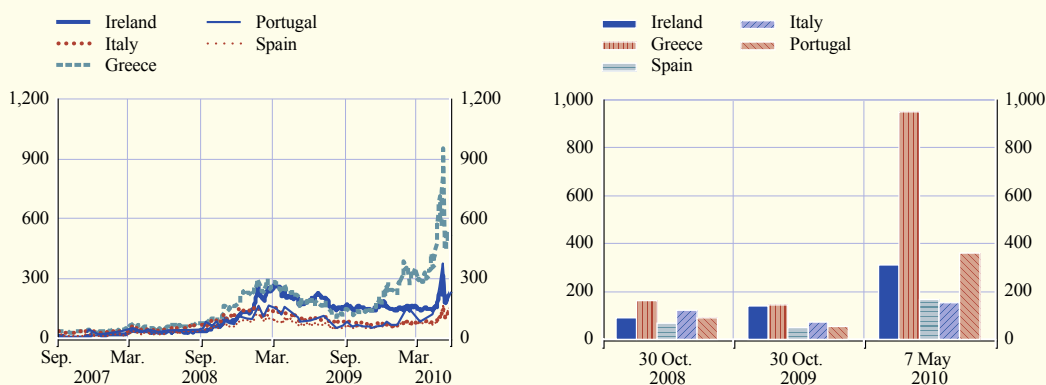
DEVELOPMENTS IN FINANCIAL MARKETS IN EARLY MAY

On 6-7 May 2010, amid increasing concerns about the fiscal situation in Greece, financial markets throughout the world, but especially those in Europe, experienced a sudden re-intensification of tensions that was reflected in a wide range of indicators. Although these tensions were a response to a different constellation of shocks than those that led to the intensification of tensions observed in October 2008 after the bankruptcy of Lehman Brothers in the United States, the events on these days were in some respects comparable to the former, in particular as regards the suddenness of the change in sentiment and the abruptness of the flight to safety by financial investors.

Underlying the financial market developments on 6-7 May was an environment characterised, on the one hand, by gradually improving macroeconomic conditions and, on the other hand, by mounting financial market concerns about the fiscal situation of some euro area countries, but also about economic and political developments outside the euro area (e.g. uncertainty about US labour market data and the consequences of the general election in the United Kingdom). Following the sudden plunge in the US Dow Jones index on 6 May, whose cause is still under review, concerns suddenly spread from sovereign debt markets to financial markets more generally. Volatility in financial markets increased sharply overnight and liquidity decreased sharply on 7 May. The functioning of several segments of the financial markets was seriously impaired.

Chart A Ten-year sovereign bond spreads (vis-à-vis Germany)

(basis points)



Source: Datastream.

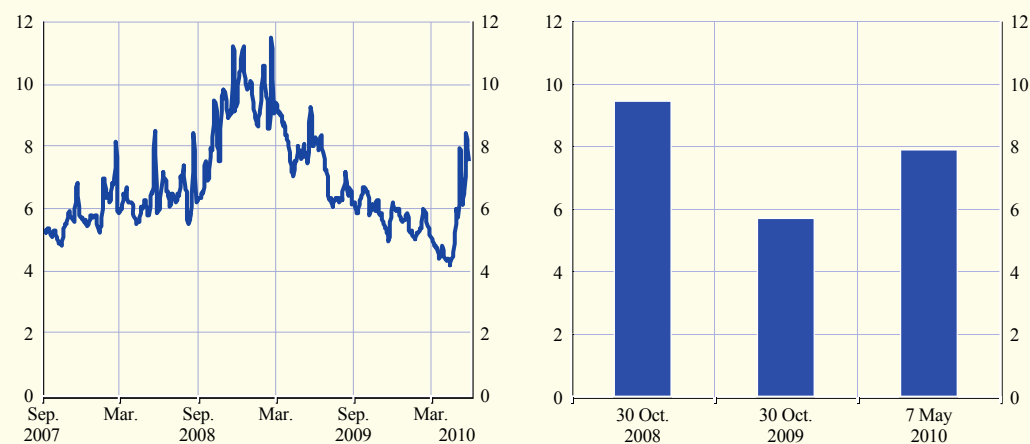
Note: Last observation refers to 25 May 2010.

Sovereign debt markets

In the euro area, sovereign bond spreads (vis-à-vis Germany) widened considerably on 6 May, especially in the case of Greece (see Chart A). Potential spillovers to other euro area sovereign issuers, in particular to Portugal and Ireland, as well as, to a somewhat lesser extent, Spain and Italy, gained increasing attention among market commentators. On 7 May ten-year sovereign bond spreads were at record highs and volatility in the bond markets increased very sharply as a result of a flight to quality by investors on a scale last seen in early 2009 (see Chart B). As a result, liquidity conditions in the sovereign bond markets of several euro area countries deteriorated very sharply and liquidity almost completely dried up for Greece.

Chart B Implied bond market volatility in the euro area

(percentages per annum)

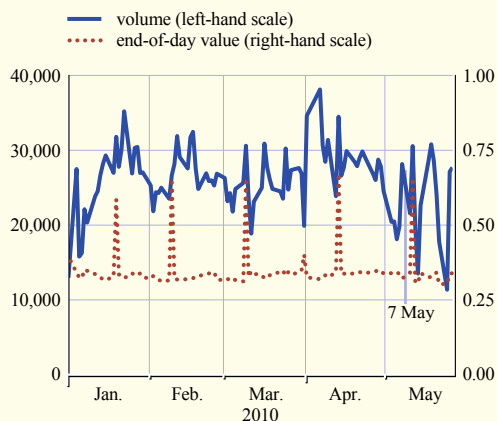


Source: Bloomberg.

Notes: Three-day moving averages of daily data. Last observation refers to 25 May 2010.

Chart C EONIA volumes and values

(EUR millions, percentages per annum)



Source: ECB.
Note: Last observation refers to 26 May 2010.

Chart D European senior financial five-year CDS spreads

(basis points)



Source: JP Morgan Chase.
Notes: The chart shows the iTraxx Europe senior financial five-year CDS mid-spread index. The data shown in the chart are provided by JP Morgan and are not the official iTraxx data.

Money markets

Developments in the money markets on 6-7 May suffered from contagion from the turmoil in sovereign debt markets, triggered by a sharp increase in uncertainty relating to counterparty risk. Liquidity also became scarce in the interbank money markets. Liquidity in unsecured lending worsened not only in the case of term maturities, but also for the overnight market. This was indirectly reflected in lower volumes underlying the fixing of the EONIA, which averaged around €20 billion per day in early May (see Chart C). Unsecured lending had been suffering since the collapse of Lehman Brothers, but trading in the shortest maturity segment (one week or less) had remained resilient until 5 May. The disruption of the functioning of the overnight market observed on 6-7 May was thus of particular concern. At the same time, access by euro area banks to US dollar funding also worsened. The costs of US dollar borrowing implied by foreign exchange swap quotations jumped significantly above the US dollar LIBOR of equivalent maturities. The iTraxx senior financials index rose sharply in early May, reaching levels above those recorded in October 2008 (see Chart D). The iTraxx senior financials index is a standardised credit derivative used to hedge credit risk. The index is composed of 25 investment-grade entities from the European financial sector. The sharp increase on 7 May would thus suggest heightened concerns about the probability of default of some European financial institutions. Indeed, the probability of a simultaneous default of two or more euro area large and complex banking groups, as measured by the systemic risk indicator shown in Chart E, rose sharply on 7 May,

Chart E Systemic risk indicator

(percentages; Jan. 2007 – May 2010, probability of default)



Sources: Bloomberg, ECB calculations.

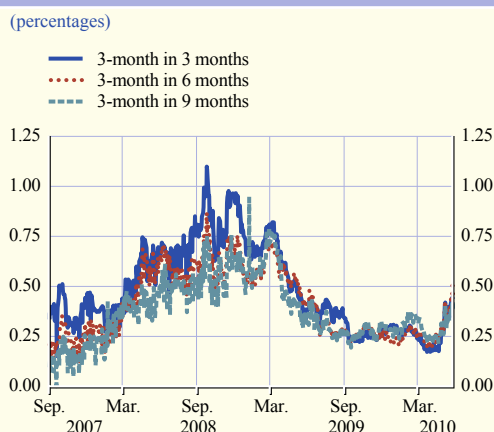
reaching values higher than in the aftermath of the collapse of Lehman Brothers.¹ Against this background, all commonly used measures of risk, such as the spreads of EURIBOR-linked derivatives vis-à-vis EONIA swaps, or implied volatilities of interest rates, increased sharply (see Chart F). Access to market financing by banks across the euro area was seriously impaired.

Stock markets

The escalation of tensions in the sovereign bond markets on 6-7 May also led to a sell-off in euro area equity markets. Financial stocks were strongly affected, but the market value of non-financial corporations was also significantly down as a result of investors' flight-to-quality behaviour. Moreover, the volatility in euro area stock markets increased abruptly (see Chart G). Volatility in the equity markets was exacerbated further by the turmoil brought about by a presumably technical error that had caused the Dow Jones index to suddenly plunge by around 9% on 6 May.² The Dow Jones index recovered part of that loss after a technical justification was communicated to participants. Financial markets remained, however, volatile and highly risk-averse.

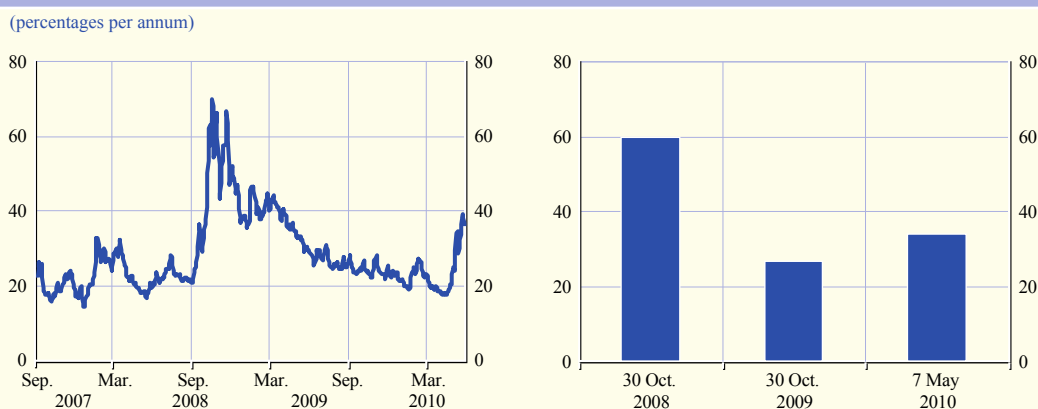
1 The indicator is based on the information embedded in the five-year CDS spreads of euro area large and complex banking groups. For further details of the indicator, see the box entitled "A market-based indicator of the probability of adverse systemic events involving large and complex banking groups" in the December 2007 ECB Financial Stability Review.
2 While a full clarification of the main reasons for the plunge is still pending, in their preliminary findings the US Securities and Exchange Commission and the US Commodity Futures Trading Commission have found no evidence of "fat finger" errors, computer hacking or terrorist activity.

Chart F EURIBOR-OIS spreads



Sources: Reuters and ECB calculations.
 Note: Last observation refers to 26 May 2010.

Chart G Implied stock market volatility in the euro area



Source: Bloomberg.
 Notes: Last observation refers to 25 May 2010. Three-day moving averages of daily data.

Settlement in the foreign exchange market

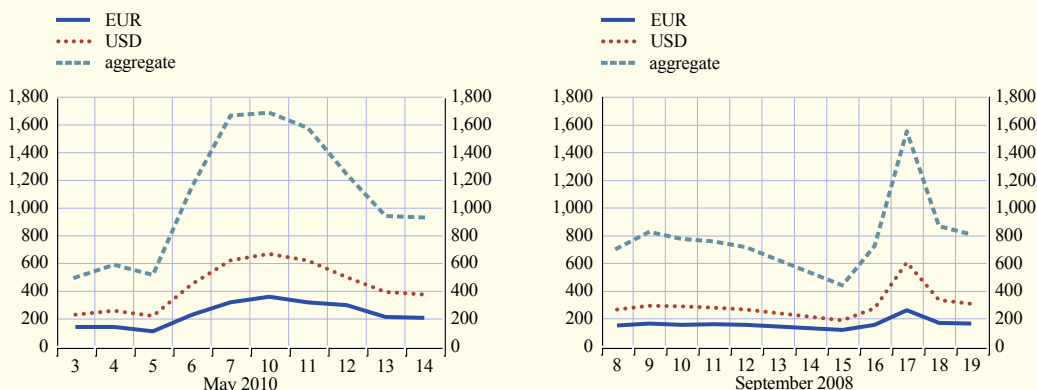
The exceptional financial market developments that occurred on 6-7 May also had an impact on CLS, the world's largest multi-currency foreign exchange settlement system. CLS was established in 2002 in order to eliminate settlement risk on foreign exchange trades involving different currencies. The market turmoil led to a significant increase in the foreign exchange trading instructions submitted to CLS. On 7 May CLS settled over 1.5 million sides and settlement levels remained over 1 million until 12 May (see Chart H). This was double the normal average daily CLS settlement volume over several days and the situation somewhat resembled that on 17 September 2008 when transactions had shot up to over 1.5 million (see Chart H). CLS coped with this situation, but the unexpectedly high volumes did have an impact both on the input process in the CLS system and on the receipt of notifications by its participants.

While days with business peaks are not unusual for CLS, especially in a currency on a business day that follows a holiday in that currency area, input levels under the stressed market conditions experienced in early May surged at times to nearly double the normal levels. This caused occasional backlogs to occur within the CLS system itself, in Member gateways into CLS (i.e. the direct participants in CLS), or in the internal systems of a very small number of CLS Members which were processing a very high volume of activity on those days. These processing backlogs within the overall CLS environment led to uncertainty as larger than normal volumes of unmatched trades existed for a more extended period. This resulted in some concerns that there might be a more severe systemic issue, rather than merely a surge in input volumes.³

3 To alleviate these concerns, CLS initiated increased reporting on system performance to Members. Moreover, CLS has in the meantime taken a number of actions to address the emergence of such temporary backlogs and has issued recommendations to CLS Members (related mainly to current capacity limits in their back-office systems and the technical capability to prioritise very time-critical value instruction submissions over others). The overseers will continue monitoring the CLS settlement process and the performance of the system in settling the submitted foreign exchange trades in order to ensure the smooth functioning and efficiency of the CLS system and thus the stability of the currencies involved in the settlement.

Chart H Daily volume of settled sides in CLS

(daily data in units; thousands)



Sources: CLS/ECB.

Note: Aggregate refers to all eligible currencies in CLS.

Summary

In summary, on 6-7 May tensions in the sovereign debt markets of some euro area countries spread to other segments of the financial markets. Volatility in the financial markets increased sharply and liquidity conditions deteriorated significantly not only in sovereign bond markets, but also and to a critical degree in the money markets. Transactions within the interbank market declined rapidly and uncertainty among banks about counterparties' creditworthiness increased. As a result, there was a risk that the normal functioning of markets and the first link in the transmission mechanism between the central bank and credit institutions could become impaired and that the ability of banks – the primary source of financing in the euro area – to provide credit to the real economy could be seriously harmed. The malfunctioning of several sovereign bond markets in the euro area was also likely to adversely affect the cost of financing provided to the private sector as sovereign financing conditions usually provide a benchmark for bank lending rates.

On 10 May the European Central Bank, with a view to restoring the conditions necessary for the effective conduct of monetary policy oriented towards price stability in the medium term, and in particular to support the transmission mechanism of monetary policy, announced the introduction of several measures. These comprised interventions in the euro area public and private debt securities markets (under the Securities Markets Programme), the reactivation of swap lines with the Federal Reserve and the introduction of additional liquidity-providing operations.⁴ Following the announcement of these policy measures, tensions in financial markets declined significantly, but did not completely dissipate.

⁴ More details on these measures are given in the box entitled "Liquidity conditions and monetary policy operations in the period from 10 February 2010 to 11 May 2010" in this issue of the Monthly Bulletin.