

### **Box 3**

#### Liquidity conditions in the Italian sovereign bond market since May

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#### **Liquidity in the Italian sovereign bond market deteriorated sharply at the end of May.**

Heightened political uncertainty led to a rise in Italian sovereign bond yields and triggered a short-lived flattening of the yield curve (see **Chart 2.12**, right panel). At the same time, liquidity conditions deteriorated significantly. On 29 May intraday bid-ask spreads increased to levels not seen since the height of the euro area sovereign debt crisis in 2011 (see **Chart A**, left and right panels). On

the interdealer MTS platform specialised in the Italian market<sup>8</sup>, the ratio of the bid-ask spread to the mid bid-ask price for the most recently issued ten-year (on-the-run) bond – a measure that moves inversely with market liquidity – rose from below 0.1% to above 5%. The resilience of the market has been adversely affected too. Orders larger than €50 million could no longer be executed at the best five prices quoted by participating dealers, according to intraday order-book data.

**A temporary breakdown of the arbitrage relationship between cash and futures markets for Italian government bonds is likely to have negatively affected liquidity on the cash market.**

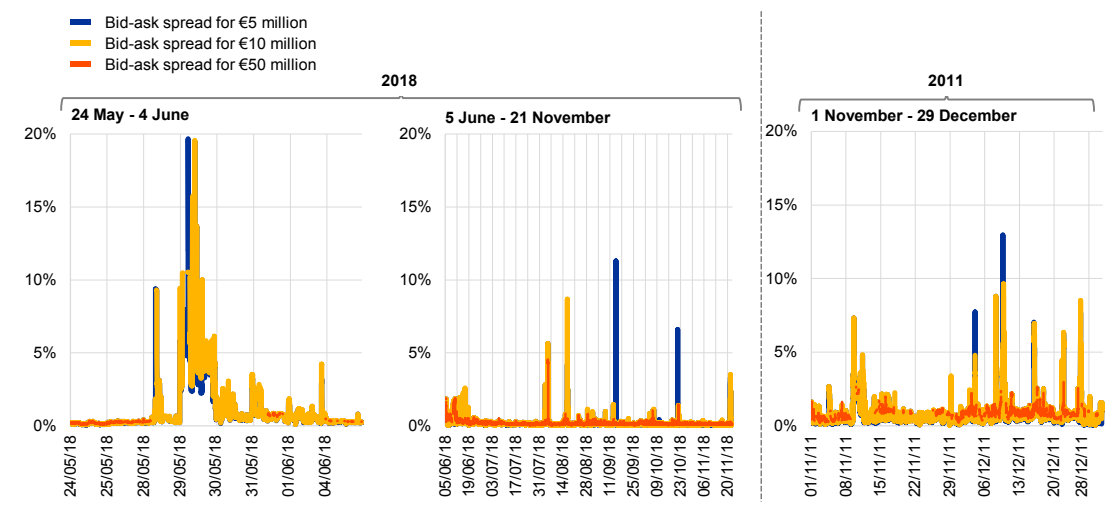
Valuations in the two markets diverged significantly on 29 May, as arbitrage relationships temporarily ceased working. Since market-makers commonly use futures to hedge their exposures on the cash market, the increased basis risk has contributed to an even further widening of bid-ask spreads in cash markets (see **Chart 2.11**, left panel). Since then, overall liquidity conditions on the Italian sovereign bond market have significantly improved, partially reversing the deterioration experienced in May (see **Chart A**, middle panel).<sup>9</sup>

**Chart A**

The deterioration of Italian sovereign bond liquidity on the MTS platform at the end of May was of a magnitude similar to that seen at the height of the euro area sovereign debt crisis

**Intraday bid-ask spreads for the ten-year on-the-run Italian government bond for various order amounts**

(24 May-21 Nov. 2018 and 1 Nov.-29 Dec. 2011, intraday observations at one-minute intervals between 10:00 and 16:59, percentage of the mid bid-ask price)



Sources: MTS and ECB calculations.

Notes: Bid-ask spreads for €5, €10 and €50 million are derived by computing volume-weighted bid and ask prices. Such bid and ask prices are based on order-book information and are estimated ensuring that hypothetical trades for the respective magnitude are cleared. Blanks indicate instances in which dealers providing the best five quotes could not make the trades because they did not have a sufficiently deep order book to fill orders of that magnitude either on the bid or the ask side, or on both sides.

**Bouts of market volatility and illiquidity have become more common in recent years in global financial markets.**

Recent episodes which affected traditionally very liquid markets include the 15 October 2014 “flash rally” in the US Treasury market and the sterling “flash event” of 7 October 2016. What makes the recent developments in the Italian sovereign bond market stand out is that the signs of market illiquidity were not restricted to a single day but persisted intermittently, albeit less severely, over the months after the initial turbulence (see **Chart A**, middle panel).

<sup>8</sup> MTS is the Mercato all’ingrosso dei Titoli di Stato and represents a fraction of the overall market turnover. However, bid and ask quotes in the MTS order book are executable and therefore representative of overall over-the-counter market developments.

<sup>9</sup> Other liquidity measures, besides those considered in this analysis, are necessary to make a full assessment of market depth and resiliency.

**This and other recent episodes of market volatility and illiquidity raise questions about the possible drivers that may have contributed to a change in liquidity conditions at the global level, in addition to idiosyncratic developments.** Several elements suggest that structural changes in global financial markets are contributing to the frequency and magnitude of volatility bouts. The increased use of electronic trading has strengthened the linkage between cash and derivatives markets, thereby increasing market participants' responsiveness to news. Automated trading strategies by mechanically propagating fluctuations and trends across markets may contribute to amplification. The increased popularity of high-frequency traders, which tend to profit from increasing market volatility, can amplify market corrections at times of increasing uncertainty. The structural shift of the investor base from banks to non-bank financial intermediaries may have affected the liquidity and trading environment and contributed to the observed bouts of volatility. In particular, unlike banks, non-banks do not operate as market-makers for their clients.