

Box 9

IMPLICATIONS FOR CREDIT MARKET LIQUIDITY OF CREDIT RISK TRANSFER INSTRUMENTS

Measuring and understanding market liquidity is extremely challenging for all market participants. It is not just the level of liquidity that matters, but also its variability and how it evolves as a consequence of market-driven or regulatory-driven developments. Over the last few years, the creation of CRT instruments has been the main market-driven innovation in European credit markets. These instruments have had a major effect on the management of credit risk by banks and other financial institutions, and are playing an increasingly important role in the functioning of credit markets both in quiet and distressed market conditions. This Box considers the impact that CRT instruments may have on liquidity, especially under conditions of market stress.¹

¹ This Box draws heavily on M. Laganá, M. Peřina, I. von Köppen-Mertes and A. Persaud (2006), "Implications for Liquidity from Innovation and Transparency in the European Corporate Bond Market", *ECB Occasional Paper*, No 50, August.

Two types of market liquidity can be distinguished: search liquidity and systemic liquidity. The first of these, search liquidity, refers to the fact that during relatively quiet times, the liquidity premium, the additional yield that investors require for bearing the risk of being unable to liquidate a position immediately, is driven by so-called search costs, namely the costs incurred by a trader/market-maker in finding a willing buyer for an asset purchased while this trader/market-maker was making markets in this asset. Search liquidity is therefore asset-specific. The second type, systemic liquidity, is linked to the degree of stress, if any, in a market. Here the driver of the liquidity premium is the degree of homogeneity of investors' behaviour. If all investors attempt to take the same positions at the same time, then the homogeneity of their behaviour will result in liquidity disappearing. Systemic liquidity is therefore not asset-specific, but refers to liquidity conditions in the market as a whole. It tends to be ample when there is a high degree of heterogeneity in investors' behaviour.

It seems likely that the growth of credit derivatives markets has been reducing search costs, especially by reducing hedging and funding costs and risks, and thereby enhancing search liquidity. More importantly, from a financial stability viewpoint, credit derivatives also have the potential to boost systemic liquidity. For instance, there is a general consensus that the existence of these markets has led to much broader investment, trading, and hedging opportunities in the credit markets. As a result, there has been greater heterogeneity in the behaviour of participants, with different views and perception of valuations. Credit derivatives can also strengthen the resilience of the corporate bond market to adverse market events. A good example of this was the use of plain vanilla credit derivatives in the aftermath of the General Motors (GM) and Ford credit rating downgrades in May 2005, when corporate bond investors effectively unwound their exposures to these issuers.

In terms of systemic liquidity, the rapid growth of composite products – including bespoke (or customised) synthetic CDOs and standardised CDS index tranches – that transfer credit risk in portfolio form could also have a positive impact on systemic liquidity. Portfolio instruments increase systemic liquidity by allowing a more efficient dispersion of credit risk across a broadened and more diversified investor base. These instruments provide the flexibility to customise financial transactions to match the individual risk/return preferences of investors, and have become the main vehicle for transferring credit risk from banks to non-banks. Moreover, because of the common credit risk component, synthetic portfolio instruments also increase the interlinkages between different segments of the bond, loan and equity markets. To the extent that they help ensure a broader investor base in distressed market conditions, stronger interconnections between markets can therefore increase systemic liquidity.

While the above considerations may suggest that CRT instruments should make a positive overall contribution to systemic liquidity, there are nevertheless two main counterarguments regarding liquidity and its potential impact on price volatility. By providing potentially unlimited liquidity during quiet times, these synthetic instruments can reinforce herd-like behaviour, as their nature makes it more difficult to detect crowded trades. This differs from crowded trades in the corporate bond market, which would become increasingly apparent through quickly rising prices. Crowded trades in the credit derivatives market, however, are less visible and potentially larger, and therefore can cause greater systemic problems. It is important to note that the driver of the problem here is not the credit instrument itself, but rather the thinking behind the crowd.

In addition, these portfolio credit instruments could potentially amplify market volatility in four main ways. First, the more structured the products are, the narrower the potential investor base is likely to be. This makes the risk that liquidity could dry up much greater in times of stress. Pricing and risk measurement models routinely presume that market liquidity will be the same whether market conditions are calm or inclement. However, for complex credit products, assumptions about asset liquidity may not hold, especially in times of stress, thereby exacerbating price movements. Second, complex credit products tend to be highly leveraged. This means that the likelihood that positions taken in them would have to be liquidated in the event of an adverse market environment is greater, as is the potential market impact. Third, the risk that leveraged investors will find themselves in crowded trades seems to be quite pronounced for complex credit products, where often market risk itself is leveraged. A firm-specific or adverse market event could trigger simultaneous attempts to unwind crowded positions. Fourth, the move towards more mark-to-market derivatives accounting in Europe has resulted in high mark-to-market sensitivity, which may lead to forced selling in a downturn. In this respect, the potential for correlation-intensive products to dislocate parts of the credit markets, particularly from a liquidity perspective, was demonstrated following the GM/Ford downgrades in May 2005.

While it is too early to draw any firm conclusions, a subtle but important distinction between instruments and their uses needs to be made. Financial innovations such as CRT instruments have the clear capacity to enhance market resilience and facilitate risk-sharing. CRT instruments could also have a positive impact on systemic liquidity to the extent that they enhance hedging capabilities, keep trading strategies varied, broaden and diversify the investor base, and enhance efficient credit risk management opportunities. However, as there has not yet been a downturn in the credit cycle, it has not yet been possible to test this hypothesis sufficiently. Other concerns have been raised regarding the use of these instruments, as they may provide greater capacity for investors to crowd into trades than in the cash market, where such congestion would be more visible. Moreover, because these instruments have, to some extent, been shifted from the hands of banks (credit experts) to those of non-banks, they may have indirectly led to an increase in the use of common valuation and risk management tools, which typically encourage short-term investors to exit at the same time in a stress situation.

From a financial stability viewpoint, the focus of concern when monitoring CRT markets should therefore be on investor behaviour rather than the instruments themselves, as well as from institutions to risks and to their management, especially under stress conditions. In order to analyse the overall impact of CRT instruments on systemic liquidity, the following three collective behaviour issues deserve further investigation. First, a better understanding is needed on how different types of market participants change their risk exposure and react under increasingly stressed market conditions. Second, since CRT instruments expose participants to a variety of credit risks as well as to leveraged market and liquidity risks, a better understanding is needed of how structural differences (e.g. asset/liability management, capital requirements, investment strategy and horizons, accounting rules, cash-constraints, etc.) affect the way these risks are managed by market participants under increasingly stressed market conditions. Third, monitoring frameworks are needed to detect firm interdependencies, as well as any structural or cyclical factors that could lead to homogeneous investor behaviour. All in all, a better overview of net exposures and concentrations, common strategies, as well as harmonised valuation and risk management techniques may help market participants to value, manage and price the risks and opportunities that CRT instruments entail more effectively.