Hit by a train

Post-crisis regulations continue to target repos. Given their vital role in wholesale markets, other bank businesses will be hit

Simple in its construct, varied in its uses. The market for repurchase agreements (repo market) is an elemental building block of modern financial markets. Whether used as a money market instrument, a source of funding, a means of mobilising collateral, or the transmission mechanism for monetary policy, it is difficult to think of any financial instrument or derivative that is not impacted in one way or another by repo rates. Yet despite its central role in the capital market ecosystem, defenders of the repo market would claim that it is poorly understood, not least by policy makers and regulators who seem to have repo firmly in their sights. From the leverage ratio to the Bank Resolution and Recovery Directive (BRRD), Volcker to the Net Stable Funding Ratio (NSFR), it's hard to find a regulatory initiative that does not deal yet another blow to the repo market. And just as the market picks itself up, dusts itself down, and looks for the light at the end of the tunnel, it only seems to be the light of another oncoming regulatory train. Be it securities financing transaction reporting (pick one of four initiatives and counting), mandatory hair-cuts, restricted collateral re-use – and the train still rolls on.

So what does this mean for the repo market? And why should we care? There are three main prognoses for the repo market as a result of this regulatory onslaught. First, repo, as a standalone traded product, is no longer profitable. Repo desks have gone from being profit centres to cost centres. This has already happened; whether yet realised or not. Second, banks' repo businesses are being transformed from traditional trading desks to more centralised collateral management hubs. This is happening and will continue to happen. Third, the value of the repo desk, and with it the repo trader, is open to reevaluation. This will come next, and will vary from firm to firm.

How the repo market transforms itself in the wake of regulation will have critical knock-on implications for the broader financial markets. It will impact pricing, liquidity, leverage, as well as the potential for investor returns. In other words, we should care. But first, it is probably good to remind ourselves why we need the repo market, as well as the role of the bank repo desk.

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What is the repo market and why do we need it

The construct of a repurchase agreement is as simple as markets get. It is the simultaneous sale of an underlying security, on a given value date, and its repurchase for a future date. The future date could be one day after the sale, or several days, weeks, months, or even years in the future. It could even be unspecified (effectively a rolling one-day repo). The seller and repurchaser of the security is the 'repo-er', and the purchaser and re-seller of the security is the 'reverse repo-er'. The repo-er effectively 'lends' securities and 'borrows' cash, while the reverse repo-er effectively 'borrows' securities and 'lends' cash. The difference between the sale price and the repurchase price implies an interest rate, which is called the 'repo rate'. In most cases, the repo rate will be closely correlated with prevailing money-market rates.

So far, so simple. But where things start to get complicated is the variety of ways in which repos are used.

For a money market investor the repo market can be an attractive alternative to placing cash on (unsecured) deposit, given that their investment is secured by the underlying securities of the repo transaction. Depending on market rates and the quality of the underlying securities, this can also be preferable to other money market products such as commercial paper or T-bills. Also, unlike many money-market instruments, repos can be completely flexible in terms of maturities, so can be tailored to meet specific requirements. Conversely, from the perspective of holders of securities, the repo market can be an easily accessible source of short-term funding; lending securities against borrowing cash.

The repo market also plays a vital role in supporting fixed income market making. Market makers, by way of doing business, will run a book of long and short positions. These longs and shorts are funded via the repo market: repo-ing out longs to finance the purchases and reversing against shorts to make good on the delivery of their sales. Other investment firms that run short positions, or require leverage to fund their positions (such as hedge funds) will also use the repo market. This creates a direct relationship between the repo rate for specific securities and the relative value of that security: the more expensive the repo for a bond, the more expensive the bond, and vice versa. Similarly, the less liquid the repo market for a security, the more likely that its bid-ask spread will widen. In turn, this will be reflected in the primary market pricing for bonds, impacting the funding costs of issuers.

This gives rise to another class of repo market user: the securities lender. These are holders of securities (or custodians acting on their behalf), who normally have no need to borrow cash. However, in the case where short-sellers need to borrow certain securities and are willing to pay-up to do so (in the form of a lower repo rate), holders are incentivised to lend these securities against what is effectively cheap money, which can be reinvested at higher rates – usually, again, in the repo market.

The repo market is also critical in the pricing of derivatives. Fair market arbitrage models for everything from options on specific bonds to exchange traded bond futures all require a repo rate for the underlying reference security. Move the repo rate, and you move the price of the derivative.

Often overlooked is the fact that the repo market is where collateral is sourced, priced, managed and disseminated. In a world where collateral is taking on ever-increasing importance, whether to shore up banks' liquidity buffers or to margin derivatives trades, a healthy repo market is vital for the smooth transition of collateral. The much touted collateral upgrade trades, for example, are nothing more than the simultaneous reverse of high quality assets against the repo of lower quality assets; hardly financial alchemy.

Finally, and somewhat pivotally, central banks use repo transactions to control the supply of reserves to the banking system, as well as setting their policy target rate, which is effectively transmitted via the repo market to the real economy.

It quickly becomes clear that repo, for all its simplicity, serves a variety of functions, and plays an important role in the pricing – and liquidity – of virtually every financial instrument. In many ways, repos are the building blocks of financial markets. To mess with repo is to mess with the DNA of the markets.

What does a repo desk do?

Traditionally, the repo desk has been one of the most important (and often among the most profitable) business units on any fixed income trading floor. Not only does it fund the longs and shorts of the various bond trading desks (usually as a utility service), but it interfaces with the bank's diverse client base in its capacity as repo market maker. Repos can be used in a variety of different ways to serve different needs: raising funds, covering shorts, lending specific securities for additional returns, sourcing collateral for margin pledges, arbitraging derivatives, the list goes on. These needs will be as diverse as the bank's client base, including corporate treasuries, retail banks, investment funds, hedge funds, money market funds, agent lenders and central banks. What repo desks do (or did) is provide pricing to all these clients, for all their repo needs, and to take the resulting positions onto their own book (somewhat confusingly known as the matched-book). The repo desk will then manage the related risks: a combination of interest rate risk, counterparty risk, credit risk, and foreign exchange risk. As much as possible they will try to off-lay these various exposures in the interbank market, or to match them against other client interests. But inevitably, the repo matched-book will be a complex portfolio of maturity and credit mismatches, which the repo trader will aim to manage, adroitly and profitably. Effectively, the bank repo desk is the pump that makes the repo market flow, while generating reliable, low-risk revenues for its bank.

Then came the train

Apart from capable repo traders, the critical ingredient for a repo desk is balance sheet. Every transaction the repo desk executes with one of its clients will use up a unit of balance sheet. Repo, for the most part, is a low risk, low return, high volume, balance-sheet intensive business. Of all the regulatory initiatives that have been introduced since the crisis, nothing has smacked the wind out of the sails of the repo desk more than Basel III, in particular the capital ratio and leverage ratio. These effectively make each unit of balance sheet that a repo transaction takes up significantly more expensive. In the case of the leverage ratio, which does not differentiate between a US Treasury and unrated bank loan, this effectively becomes the binding constraint on the repo matched-book, disproportionately penalising low risk, high volume business. For repo, it is the game changer.

Importantly, there remain provisions to net repos on balance sheet, in the case of opposite matched-maturity transactions with the same counterparty. This has increased the appeal of central counterparties (CCPs), with netting opportunities becoming the primary consideration, far more so than mitigating counterparty risk. It also changes the way in which repo desks interact with their clients, adjusting pricing for transactions that can be netted. This is important, as the reality is that matched-book repo transactions that cannot be netted are almost certainly losing money.

Under Basel III, a quick calculation of the break-even hurdle for an overnight repo in German Bunds (or any other security for that matter) will tell you that you need to make something in the region of 70 or 80 basis points (bps). Yet the average repo desk will probably still quote you something in the region of a 5 bp bid-ask spread. There are two main reasons why. First, not every repo desk is absorbing the true Basel III balance sheet costs directly into their bottom line. This is important. If they did, they would either have to widen their spreads significantly, or book a loss every time they transacted. Second, repo pricing for clients has become a service add-on. Repo desks no longer provide repo quotes to their clients in isolation. Rather, they consider the client's overall value to the bank and assess what revenue is produced through other transactions, say in derivatives, or through clearing or prime brokerage services. It is within this holistic context that the bank will provide the client with repo liquidity, and absorb the resulting balance sheet hit as an overall cost of doing business with the client.

In other words, repo market liquidity is being subsidised by other markets, and repo market users are paying for it through other transactions and services. It is worth stating again: post Basel III, the repo market is being subsidised by banks' other, profitable, businesses.

Transformation of the repo desk

While the capital and leverage ratios have made repo unprofitable, other regulations are also impacting the structure of the repo market. The Basel III liquidity coverage ratio (LCR) is driving up the demand for high quality liquid assets (HQLA) held on banks' repo books for 30 days or longer, while making short-term repo and lower quality assets less attractive. The Volcker Rule, and similar rules limiting proprietary risk taking, are leading to the de-risking of repo matched-books. Meanwhile, Dodd-Frank and EMIR [European Market Infrastructure Regulation] are fueling demand for collateral to pledge as margin against derivative transactions. The combined effect of these initiatives is to transform the repo desk from a trading profit centre into a collateral and liquidity management utility. As balance sheet becomes scarcer and more expensive, its allocation and optimisation becomes ever more critical, leading the priorities of the repo function to change. Ensuring that the bank maintains its liquidity buffers and that its margin obligations are optimised take priority over providing a hedge fund with one-week funding for an illiquid corporate bond. The repo business that banks look to transact with clients now becomes influenced by the bank's own collateral and liquidity needs.

Not only does this influence how banks engage externally with their clients, it also changes the internal interaction of the repo desk. Whereas traditionally the bank repo desk was very much a standalone profit centre within fixed income, now it is becoming ever more integrated with treasury, equity finance, securities lending, and other collateral and liquidity management centres. Similarly, margin management is moving out of the back-office and onto the repo desk. Essentially, the repo desk is becoming a cross-divisional, centralised collateral and liquidity management hub, aimed at squeezing every last drop of value out of the bank's scarce balance sheet and the assets that sit on it.

A number of banks have already made this transformation, while others are edging toward it. It seems only a matter of time before the traditional matched-book model of the repo desk becomes a distant memory.

The light at the end of the tunnel

If the raft of regulation already reshaping the repo market was not enough, there is more, much more, on its way. The fourth pillar of Basel III, the NSFR, will make short-dated repos even more expensive for the banks that provide them. Meanwhile, in Europe at least, mandatory buy-ins under CSDR will create new (and largely unquantifiable) risks for anybody providing repo liquidity (or simply lending securities), while the stay provisions for repo under the BRRD provide another good reason not to lend securities. The touted Financial Stability Board (FSB) provisions for mandatory hair-cuts and restricting collateral re-use potentially add further blows to the repo market. And while nobody takes issue with regulators having greater transparency of repo market activity, the costs of exhaustive reporting regimes for securities financing transactions tabled by the FSB, European Commission, European Central Bank and the Bank of England will still need to be factored into the bottom line of the repo business. Throw in the possibility of the financial transaction tax, and banks may as well give up trading repo altogether, at least in Europe.

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Staring into the abyss of the repo market, there are a few questions: will the repo desk become entrenched as a necessary utility and unavoidable cost centre, and will we need repo traders at all?

This is where banks may diverge. Some will undoubtedly strip their repo desks back to the bare bones of collateral and liquidity management, preserving balance sheet for more profitable businesses. However, the need for repo will not go away. Investors will still prefer to lend their cash on a secured basis, rather than unsecured, even if that means paying up to do so. While the demand for leverage will inevitably reduce, there will still be those that are willing to pay for balance sheet. Meanwhile, the demand for high quality collateral will ensure that, somehow, collateral will need to keep moving, even if it becomes more expensive to do so. In other words, the repo market will continue; it will just look very different, and a lot more expensive.

First, at some point, it seems likely that margins will have to widen to reflect the real cost of transacting repo. We may not see bid-ask spreads move to the 80bps or wider, which represents the true hurdle rate for banks' required return on equity, but they cannot stay at the 5 to 10bp spreads still enjoyed today. Second, clients' repo and funding needs will have to become ever more closely aligned with banks' liquidity and collateral requirements, which will help drive the investments they make, including the types of collateral they hold or the terms for which they lend or borrow cash. In this way, the bank-client repo relationship will become ever more symbiotic. Third, the real cost of repo, and the reduction in repo market liquidity, will eventually have to be reflected in the pricing and liquidity of the underlying securities, as well as in derivatives markets. Wider bid-ask spreads for repo has to mean wider bid-ask spreads for government bonds, corporate bond ETFs, exchange traded bond futures, and a raft of other instruments.

Who needs repo traders?

The repo market, for all its simplicity, serves a multitude of purposes and interacts with virtually every financial market. So regulation that impacts the repo market, inevitably, will impact virtually every financial market. This makes repo sometimes difficult to understand fully, at least from the regulatory perspective of cause and effect. It's no wonder that so many regulatory initiatives touching the repo market, whether directly or indirectly, gives rise to paranoia amongst most repo traders. When one looks at the regulation still to come, they may have good reason to feel victimised.

However, as much as the post-regulatory landscape for the repo market creates challenges, it also provides opportunities for those that position themselves early, start transforming their business, and begin building the client relationships that will be essential for mutual survival. This is also likely to coincide with a return to higher interest rates, with increased volatility, and the possibility for wider margins. Meanwhile, much of the competition will have done the math and already thrown in the towel.

In this new world, repo traders who have the skills and experience to correctly value and price collateral, as well as balance sheet (which should be viewed as a commodity in its own right), who can foster strong client relationships, and who can spot opportunities and manage risk in increasingly illiquid and volatile markets, should find their services in demand. That is assuming that they have not been hit by too many trains in the meantime.

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