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Spotlight on bank regulatory capital

Mechanics of bank portfolio risk transfer transactions

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- Bank regulators permit banks to meet more stringent post-crisis capital ratios by undertaking 'risk-sharing' transactions
- Banks can manage their regulatory capital on an ongoing basis through whole loan asset sales, full capital structure securitisation or synthetic securitisation
- The mechanics of these transactions may differ, but all three approaches focus on achieving a common outcome: regulatory capital relief.

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Bank capital requirements in the eyes of the regulators

Banks have two different metrics of capital. While both of these share common elements they are distinct.

One is an accounting-driven measure of capital (based on IFRS or GAAP standards). Essentially this is a balance sheet measure of the excess of assets over liabilities, expressed in the form of equity. This equity can have both tangible and intangible components and is the measure that many recognise since it applies to most forms of enterprise. This measure of capital doesn't account for differences in risk of assets held on the balance sheet or the nature of liabilities supporting them.

The alternative approach is the regulatory capital measure. This measure has been developed by the regulatory authorities tasked with ensuring stability of their national banking systems, which is seen integral to the wider functioning of the economy. This is what underpins the various Basel Capital Accords (banks are currently implementing Basel III) and a panoply of legislative acts and directives emanating from this banking regulatory framework.

To achieve the regulatory capital measure, regulators strive to 'risk weight' assets on the balance sheet of a bank to derive a 'risk-weighted size' of the balance sheet. They start with the tangible component of equity (as defined by the accounting measure) and make a number of adjustments in order to derive the equivalent regulatory measure of equity. Finally, they check whether this measure exceeds a certain pre-determined portion of the risk-weighted size of the balance sheet.

More recently, regulators have supplemented this risk-based measure of bank equity to include a 'leverage ratio-based' measure, which is similar to the accounting measure in some ways, because its methodology focuses on the aggregate size of balance sheet alone and doesn't apply risk weighting to the assets.

The regulatory authorities have also added other measures to determine: i) how much regulatory capital a bank would hypothetically be left with in a stress scenario (typically an unfavourable economic scenario)?; ii) whether a bank needs capital add-ons for risks not captured by credit models (eg operational risk)? or iii) if a bank needs more capital because it has a lot of assets (if it is a systemically important bank)? among other measures. Suffice to say, this has resulted in myriad of rules and has left banks with a substantial burden of additional capital requirements to meet.

These additional capital rules have come at a time when banks, particularly in Europe, are also experiencing anaemic profitability, low loan growth, low interest rates and, as a consequence, low return on equity – leading to tepid interest from shareholders. Faced with higher regulatory capital requirements on the one hand and a relative inability in recent years to organically (or inorganically) replenish their capital buffers on the other, banks have had to focus on reducing the numerator – which is the asset size of their balance sheet – and thus improve the regulatory capital measures set out by the regulators.

Approaches to regulatory capital management – how do they work in practice?

Banks can manage their regulatory capital in various ways, the three key approaches being:

(i) Whole loan asset sales;

(ii) Full capital structure securitisations of those assets in which most (and often all) tranches are sold;

(iii) Synthetic balance sheet securitisations where first-loss (or sometimes mezzanine) risk positions are sold.

All of these approaches come at the expense of future profitability, since banks cede at least some of the income that would otherwise have been earned on the assets in question to pay the counterparts assuming the risk on the assets. However, banks don't really have a choice in the matter since meeting, and increasingly exceeding, regulatory capital requirements is a necessity in the eyes of the regulators, bank investors (bond and equity) and, sometimes, customers.

While there are different nuances and trade-offs involved in each of these transactions, all three approaches aim to achieve a common outcome: regulatory capital relief, ie the 'after the transaction' measure of regulatory capital looks better than the 'before the transaction' measure. We explain each of these types of capital relief and risk-sharing transactions in more detail to understand how they really work in practice.

Asset sale

This is the simplest to understand and is also the cleanest way in which a bank can reduce its regulatory capital requirements. A bank that sells loan assets to a third-party no longer owns them on its balance sheet (according to accounting or regulatory measures). As such, it would no longer need to hold regulatory capital against them.

The selling bank ("the seller") could continue to service those loan assets for a fee and continue to interact with the individual borrowers under each loan, but the economic risks/rewards of the loans are transferred to the party that is acquiring them ("the buyer"). The buyer of such assets often has the right to decide whether the seller will continue to service the loan assets after the sale and can also choose whether to sell the assets on to another buyer in the future. Given these types of considerations, a bank that looks to sell its core loan assets will typically identify a type of buyer that it feels will be a patient owner of these assets rather than a buyer that is looking to quickly sell them on to make a profit.

Asset sales can be in two types: a bulk sale or a forward flow arrangement.

A bulk sale is what it suggests: the bank takes a portion of the loan assets on the balance sheet and sells it in one go. A forward flow involves a repeat arrangement between the seller and buyer – sales are conducted from time to time, according to a series of pre-defined rules. Since banks originate assets on an ongoing basis, forward flow arrangements have their attractions. Importantly, asset sales can combine both elements – a bulk element with a forward flow arrangement tagged on to it.

The core loan books of banks are very large. So, asset sales tend to only involve a representative subset of a bank's existing loan book even after an asset sale has taken place. Therefore, continued alignment of interests is not typically a concern. The asset sales, when they occur, are conducted under a sale and purchase agreement (SPA), which contains the key economic terms and conditions of the arrangement and a series of representations and warranties negotiated upfront between the buyer and seller. The primary focus of SPAs is to ensure the buyer is comfortable that the bank is selling assets of which it stands behind the origination standards and their legality.

There is also invariably a servicing agreement that governs the ongoing administration of the loan assets by the bank (or a third-party servicer) for the buyer. While asset sales tend to be a specialised area, those that have been involved in the practice over the years have established several key principles, which form the basis of negotiations between parties for these types of transactions. Buyers of asset portfolios typically finance the acquisition, in part, by raising debt secured by (and with limited recourse to) the acquired assets from third parties and sometimes from the seller itself.

Whether or not such financing is sought, the asset portfolios are typically acquired into an acquisition vehicle such as a special purpose vehicle (SPV) and separated legally from the balance sheet of the seller. From the date the transaction closes, cashflows earned on the assets go to the new owner (ie the acquisition vehicle) and from it to the investors in the assets; the economic and legal separation from the seller's balance sheet is thus complete. A first-time asset sale process may take several weeks to negotiate, but repeat transactions can be quicker to complete.

Full capital structure securitisation

A full capital structure securitisation or 'true sale' securitisation, as it is also known, is merely an extension of an asset portfolio sale.

Take the example of the asset portfolio sale to the acquiring SPV, with the SPV financing this acquisition by the issuance of a term securitisation secured by these assets. Such a securitisation could even be organised by the seller. In this way, the institution that is selling the asset portfolio can harness the benefits of securitisation technology to create a more efficient sale process and generate a higher sale price for the assets.

The parties investing in the securitisation could still be the same parties that would have otherwise acquired the asset portfolio and financed it as outlined in our example of a (whole loan) asset sale, but typically a securitisation would open up the opportunity to a wider investor base, including those whose investment guidelines do not enable them to acquire whole loan portfolios but only securities backed by them. Full capital structure securitisations undertaken in this way are typically (credit) rated, which can add time and complexity to the overall process, however, this also means a more standardised and replicable approach is followed.

Banks that have securitisation programmes that they tend to use for funding purposes can use the same programmes for full capital structure securitisations. The only real difference is that not only the senior-most tranche, but most (if not all) tranches, are sold. Critically, the rights to acquire the portfolio from the SPV when the securitisation is repaid is granted to the junior-most class in the capital structure; this ensures the seller doesn't end up with contingent exposure to the assets – in other words, the 'asset sale' element is protected. From an accounting and regulatory perspective, the outcome is the same as if the sale had taken place (bilaterally) without a contemporaneous securitisation attached to it.

Individual buyer or seller preferences, the type of transaction undertaken, the size of the transaction and the relative efficiency of a public full capital structure securitisation versus a privately-funded transaction can all impact the choice of either a straight whole loan asset sale or a sale in the form of a full capital structure securitisation. Importantly, the differences do not impact the ethos or outcomes from an accounting or regulatory capital analysis perspective.

Synthetic securitisation

Sometimes, a bank chooses to try and reduce the risk weighting of the loan assets from a regulatory perspective, while continuing to retain them on the balance sheet from an accounting perspective. This enables the bank to hold a lower value of regulatory capital against those loan assets. The motivation for choosing the synthetic route is usually due to the difficulty of physically selling the particular assets, eg overdrafts cannot be sold, or because of hard regulatory restrictions on sales, eg certain jurisdictions will not allow the sale of SME loans.

Such a situation would therefore lend itself to a synthetic securitisation. In such a transaction, rather than physically sell assets, the bank purchases protection against credit losses on an identified portfolio of assets. The format of risk transfer in this case is not an asset sale agreement but a credit protection agreement, which could be documented as a credit default swap or a financial guarantee.

Under this credit protection contract, the bank transfers the risk of credit losses on a reference portfolio to another party (typically an SPV). The SPV, in turn, issues notes to one or more investors and retains the cash portion to pay out to the bank whenever the bank makes a claim on losses incurred under the reference portfolio.

In return for receiving credit protection against losses, the bank undertakes to pay a pre-determined fee or premium to the SPV on an ongoing basis, which the SPV then passes on to the investors in the form of a coupon on the notes issued by the SPV. At the end of the term of the credit protection contract, any remaining cash held in the SPV is distributed to the investors.

Depending on the losses incurred under the reference portfolio over the term of the credit protection contract, some of this cash may have been paid to the bank and thus the investors may ultimately receive less than what they invested.

Investors undertake analysis to estimate what the potential loss could be on the portfolio, and therefore, how much they would want to be compensated in exchange for bearing the risk of that loss. Banks may retain some of the initial loss (first-loss) or provide some ongoing mitigation of losses (in the form of an excess spread).

Both of these credit supportive features are potentially helpful for investors, but banks still need to hold regulatory capital against the assets, which reduces the efficiency of the regulatory capital released via the credit protection transaction. So, these transactions involve trade-offs for banks and investors, alike.

A synthetic securitisation cannot, by its nature, be risk-eliminating for a bank since it continues to retain these assets on the balance sheet. Also, since, in this type of transaction, the bank's focus is to transfer the first X% loss or losses between X% and Y%, it has to continue to retain some element of regulatory capital against them even on a risk-weighted measure. Regulators have constructed detailed, prescriptive guidance and rules on how a bank must treat such a transaction from a regulatory perspective. Banks generally have to have long and detailed discussions with their regulators to receive pre-approval (or non-objection) to undertake such a transaction. The regulator tries to assess whether the risk transferred is commensurate with the cost and to ensure that the bank is honouring the spirit, and not just the letter, of the rules in this respect.

Over the years, as this type of transaction has become more common, a series of guide rules and best practices have been developed. While it would be too much of a stretch to say that transactions have been standardised, there is a framework within which they operate. One important element for regulators is that the transaction not only be risk transferring on day one but over the life. So, they try to assess whether the quantum of risk transferred would be sufficient to absorb losses over the life of the asset portfolio. Doing this when not all the risk has been transferred (as in the case of the other two approaches) can be difficult, and is one reason why the total quantum of regulatory risk reduction through synthetic risk transfer is generally kept to a manageable proportion of the total regulatory capital that a bank holds.

Due diligence process

Acquiring loan assets requires extensive commercial and legal due diligence on the part of the buyer. This involves, but not limited to, analysing past performance for which the buyer typically receives multi-year loan level data, the ability to analyse origination practices and how they have changed over time, compliance with regulatory and legal obligations in respect of assessing affordability.

Of all the types of transactions, asset sales permit a buyer the closest look at the underlying loan assets and the greatest subsequent control over them. For these reasons, transactions involving asset sales best work when the buyer and seller are looking to build a symbiotic long-term relationship, such that the time, cost and effort of the diligence is worth it for both parties.

The volumes of data can be vast. The buyer, however, needs access to the granular data to make their own assessment of risk and return. This requires the bank to work closely with the investor and be prepared to completely open up their loan books for scrutiny. The buyer needs a process and system to model this data and derive their own assessment of loan quality using their proprietary systems, and make a judgement as to the likely loan loss risks and the required purchase price to assume these risks given the anticipated level of return.

Hence there are only a limited number of suitable partners likely to participate in such transactions. The seller wants to engage with known and trusted investors to whom they are willing to provide large volumes of confidential data. Equally, investors want to engage with banks whom they can trust to provide full disclosure, preferably with a track record in such transactions.

Figure 1. How banks can manage their regulatory capital – key transaction details

Asset sale:

- The buyer is assigned full beneficial interest in the assets by the seller and is entitled to all future cashflows on the assets and bears the risk of those assets.
- The buyer also has rights to sell the assets and to choose the servicer of the assets and whether and how to finance them.
- The seller may remain lender of record unless the buyer wishes to effect transfer to another entity.
- Assets are fully identified; the buyer receives extensive loan-level performance data and can conduct detailed diligence on assets and negotiate a representations and warranties package specific to the asset portfolio and circumstances.

Full capital structure securitisation**:**

- The acquiring SPV is assigned full beneficial interest in the assets. A trustee represents the investors' interests. Different investors receive different allocations of cashflows on the assets defined by a prescribed cashflow waterfall.
- Upon termination of the securitisation, the junior-most class of notes typically has the right to purchase any assets that still remain.
- The seller typically remains lender of record and continues to service the assets for the acquiring SPV.
- Ability to conduct diligence on underlying loan contracts varies depending on the transaction, but the seller typically provides extensive representations and warranties, in place for the term of the securitisation, to mitigate against any diligence gaps.

Synthetic securitisation**:**

- The seller retains full beneficial interest in the assets and as such does not actually sell the assets but purchases credit protection against the risk of the first X% or between X% and Y% of credit losses in the underlying assets through the issuance of credit-linked notes.
- The reference portfolio could be disclosed or undisclosed (blind pool) and typically the seller has rights to replenish assets for a period of time (one-to-two years).
- Investors are compensated for taking the risk of losses on the portfolio by receiving a fixed coupon that is paid on the outstanding notional of the credit-linked notes. The balance of the notes could be written down by losses.
- Since the seller doesn't actually sell the assets and the asset pool may be undisclosed or change over time, asset level legal diligence is unusual with investor focus on estimating credit losses.

Figure 2. Comparing the different approaches to regulatory capital management

	Asset sale	Full capital structure securitisation	Synthetic securitisation
Format of risk transfer	Sale of assets at a bilaterally-negotiated value between the buyer and seller. Buyer bears full economic upside and downside in the performance of assets	Sale of assets implicitly at a value equal to the proceeds raised from all the classes of notes sold under the full capital structure securitisation. Individual investors have varying degrees of exposure to the downside risk in the assets depending on which notes they invest in, but only the junior-most class of investors has the right to receive economic upside on the assets	Purchase of credit protection by the 'seller' for the payment of a pre-defined fixed premium. Per the rules governing such transactions, the premium cannot be directly linked to the performance of the assets, but is set as an independently-negotiated premium determined through a book-building or bilaterally-negotiated process with buyers, akin to a bond issuer setting the coupon on its bond issuance
Bilateral or syndicated	Almost always bilaterally executed, although the sale process itself may initially take the form of a two-step auction to select a preferred bidder. Where the process is an auction, up to 10 bidders are typically invited with a second round of two-to-four bidders	Either bilateral or syndicated. Often, debt classes are widely syndicated but junior classes are bilaterally placed to a single investor or through a club deal	Either bilateral or syndicated. Transactions by first-time issuers are typically executed with one investor or more usually a small club; frequent issuers or larger deal sizes tend to adopt a widely syndicated approach
Typically represented bank loan asset types	Residential mortgage loans, consumer loans, auto loans	Residential mortgage loans, SME loans, personal loans, auto loans, student loans	Medium and large corporate loans, SME loans, personal loans, auto loans
True sale	Yes	Yes	No
Bank capital metrics impacted	Regulatory capital, size of balance sheet (thus leverage ratio capital). Capital add-ons on assets are also eliminated (eg ongoing credit risk provisioning, operational risk add-ons)	Equivalent to asset sale	Regulatory capital
Key documentation	Asset Sale Agreement, Servicing Agreement	Asset Sale Agreement, Servicing Agreement, Trust Deed, offering circular or other documentation governing placed notes	Credit Protection Agreement (default swap or financial guarantee) and offering circular or other documentation governing placed notes

Source: M&G

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