RoALM investment house

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Thomas Jefferson on Banks

"I believe that *banking* institutions are *more dangerous* to our liberties *than* standing *armies*..."

The nature of fractional banking is simple enough.

A bank can take a certain amount of capital, let's call it $1.

Under the fractional banking system, the bank can lend out $20 (assuming it can find $10 in deposits or it can raise $10 in debt).

So the bank ends up with $1 in capital which is now acting as a backstop against a shortfall to the banks total loan amount of $20.

Putting it into a current context , Deutsche Bank for example has 19 billion Euro in current equity (as assessed by the share-market, not their accounting statements which states it at a little over 52 billion euro), this core equity sits in front of roughly 1.6 trillion euro in assets.

If you have never really understood the chassis that fractional banking is built on those kind of numbers can be quite confronting, indeed one could say that its real sandbags on the ocean front stuff.

Banks function on the law of large numbers, in other words by building size and diversity the banks reduces any idiosyncratic exposure, e.g. the risks related to individual geographies, market segments etc. The nature of the maths is such that big diverse banks generally have the wherewithal to
navigate through events such as deep recessions and shallow crisis without a great deal of trouble. This to some degree then drives investors to over-estimate the safety of these institutions, because before 2008, big banks just didn't go broke.

Over the last thirty years banks have steadily increased their asset bases significantly , in the process forcing themselves into a position of intermediation into every aspect of global commerce. At the same time the interbank system saw banks trade with each-other which in turn increased leverage and integration even further. Where this is most evident is the enormous over the counter derivative market, where banks make a myriad of bilateral promises. This means where one set of promises fails it can lead to a cascade of bad promises, which in turn means that the multi trillion derivative market, which is built on the premise that every profitable derivative has a loss making twin in another balance sheet is put at risk, in other words, profitable trades become void as loss making trades are wiped off.

When you start talking multi-trillions going bad you are talking about something infinitely worse than what we experienced in the GFC. This is something the market just doesn't have the wherewithal to face without resetting. This is the conundrum of Too Big Too Fail (TBTF).

Post the GFC global regulators, driven by the G20 put into play the beginning of a regulatory play book. The Basel reforms as they are called is regulation which has as its objective the delivery of a safer banking system. Very simply the rules put in place seek to penalise banks heavily for the risk they take, the loans they hold and their size. In the meantime, regulators have pushed forward with the concept of centralised clearing for derivatives, e.g. putting all of these bilateral promises on an exchange where they can be transparently be assessed.

The Basel committee also pushed forward with plans relating to resolution, with the objective being to release governments and tax payers from being held to ransom by the banking system. This came in the form of living wills (e.g. playbooks of how a failing bank can be resolved) and new rules relating to non-viability and bail-in able securities.

Some jurisdictions have gone further still, with countries like Germany legislating that current senior debt will be assessed as subordinate to deposits and derivative contracts, thus allowing this part of the capital structure to be bailed in. This basically means that senior debt can be written off or converted to equity without the bank failing (e.g. it can be used to recapitalise the bank, which means very simply it can absorb losses).

This is the brave new frontier and an experiment that has been up until this stage only conducted on a small scale (Banco Espirito Santo in Portugal).

What we are talking about is different than what happened with the US banking sector, as this took the form of an outright bailout. The Federal Reserve bought assets and made equity injections into affected US banks, took on the liabilities of AIG and backed the guarantees of Freddie Mac and Fannie Mae, all in all for a cost of a little under 1 trillion US dollars at the time.

The plan around bank resolution in Europe takes a different form, with regulators working on the expectation that investors bear the burden.

More recently the question of TLAC has added a new dimension to this discussion. More specifically German and Italian governments pushed through legislative changes which made senior unsecured bank debt subordinated to other liabilities such as deposits and derivatives. By doing this these governments basically drew a line in the sand saying that the derivative exposure and money of bank depositors is safe, while everything else is there to potentially absorb loss.

The markets response was relatively muted, with spreads widening by approximately 0.10% to 0.20% in DB's senior CDS post the announcement. By the end of the next month , spreads for the likes of Deutsche Bank were back at levels before the announcement was made.

This was all well and good, until half yearly reporting took hold, with Deutsche Bank delivering a stinker, with a 6.89 billion Euro loss for the year, and more specifically a 2 billion euro loss in the fourth quarter. All in all the last year has seen Deutsche Bank's Core Equity Tier 1 drop from 60 billion Euro to 52 billion Euro in a period of a year.

That said the equity market has gone further still, and this is now at the heart of the issue. The market values DB's total shareholder equity at closer to 19 billion Euro. Which in essence means that the market has moved ahead and written down Deutsche Bank's asset base ahead of the bank, and fair enough as well. Over the last five years Deutsche Bank have delivered anaemic returns to shareholders, indeed the bank had delivered flat to negative earnings in the 5 years since the GFC. For those with an understanding of debt and credit markets this isn't a huge surprise, banks will very often slowly bleed out losses over a period of time. The issue is however that equity holders are fairly losing patience and are becoming increasingly concerned on asset quality. The problem with a collapsing equity price is that the banks are seeing the biggest part of its regulatory capital structure written off, which in turn limits the banks' ability to raise additional capital as circumstances deteriorate.

As the core equity buffer is eroded the market starts to conceptualise how losses are going to be absorbed. In the case of Deutsche Bank's Tier 1 CoCo (Hybrid Debt), the buffer between it and loss according to the market is now only 19 billion Euro, despite the book value of $52 billion Euro. Needless to say the Credit market has responded to this, by increasing the probability of an event. Given the explicit language around contractual bail in and non-viability within Tier 1 and Tier 2 debt in Europe which allows the debt to be equitized in the event of government or central bank involvement, the CDS spread of Deutsche Banks subordinated debt has exploded wider, and consequently taken senior on a ride with it. Responsibility for the weakness in DB senior can be laid at the feet of the German government which has legislated a conversion of senior debt into a TLAC compliant security, by putting it in a position to loss share.

So now the market waits and watches to see what happens next. The plumbing and complexity created by the Basel committee now creates a rod for our back, with contractual bail in and German legislation now making any kind of support and resolution a veritable minefield. The risk for regulators is that they basically need to do one of two things, stick firm and resolve any struggling entity consequently sending tier 1 and tier 2 debt skyrocketing in spread for the foreseeable future for all banks, or swallow it all on the basis that DB is just too big to resolve. Which in turn would mean that the Basel continuum has failed to protect the global economy from being susceptible to bank failure. They seem like two bad choices, the other is that DB somehow muddles through with support from central bankers and regulators, however that would be a slow burn and the equity market is already sounding alarm bells which means the time for doing nothing has passed.

Regulators could open Pandora's box here. If they resolve or bail in or threaten senior, the market will adjust and start pricing for all risks, including idiosyncratic ones, which could see the senior spreads across the European continent explode wider. For tier 1 and tier 2, a DB bail in would push these markets to levels where they could cost banks more than issuing equity, and totally change the paradigm moving forward.

This is the point where we have to remember just how finely balanced the banking sector is, Net interest margins of between 1 and 2% don't really leave a lot of room for explosions in costs of funding. It doesn't take long for a healthy ROE to turn negative in these circumstances.

In such an environment these banks would essentially need to increase rates meaningfully and likely stop origination. In other words rates would rise meaningfully and credit growth would grind to a halt, so the wrong action could create far reaching consequences.

So what are the negative pathways from here:

1. **Worst Case-** DB goes under, regulators lose control of this, derivative exposures are affected, setting off a chasm within global derivative market. The integrated nature of banking essentially means that this is somewhat of a goodnight nurse scenario, which requires you to have firearms and canned goods in your asset allocation to be properly diversified.

2. **Second worst case –** the momentum created by the equity market cannot be reversed, a fundamental loss of confidence means that DB's credit spreads are at levels where the bank cannot function through the markets as it cannot borrow money at commercial rates. To restore confidence they follow the play book and bail in all senior tier 2 and tier 1 debt. The exposure to DB would impact bank trading books globally and asset managers, the impact on confidence would see spreads skyrocket in Europe in particular and abroad however as the market adjusts to a new paradigm for risk, one where the risk of resolution is real and needs to be accounted for. Overnight Tier1 , Tier 2 and senior begins to be assessed for all its idiosyncratic and systematic risks ,assuming something closer to a worst case, spreads sky rocket to levels that challenge bank profitability. The issuance of tier 1 and tier 2 becomes difficult to impossible as investors start demanding capped equity outcomes .

3. **Third worst case –** The central bank relents and provides support to DB, in doing so they indicate that they will not bail in senior unsecured debt, however they do bail in tier 1 and tier 2 debt converting it to equity. This also likely coincides with a breakup of the bank into good and bad bank. This drives a paradigm shift in tier 1 and tier 2 debt with the market taking a more dynamic type approach to valuation, e.g. the market starts valuing it as what it is, which is a deep out of the money put option. When prices drop and volatility increases spreads hockey-stick higher. In reality this market is probably toast for the foreseeable future with issuance grinding to a halt in this scenario.

None of the aforementioned is pretty and if that's where we are headed you can expect a heightened level of volatility over the coming months. The issue now is one of how you soothe the equity market without triggering something more meaningful or undermining all of the recent regulatory reforms. They will have to walk and chew gum as they say , as this will be a delicate and in all likelihood impossible balancing act.

The more likely result here is that this acts to undermine regulation which has arguably been heavy handed and in-discriminant, the result being that we see a cooling in the speed and depth of reform, this is likely to be combined with some form of central bank activity which seeks to alleviate balance sheet stress.

Ultimately what we are sure of is that the structural integrity of the financial system is a non-negotiable, as such any threat to it will drive a strong response, while we wait though it might be an idea to strap yourself in as they say in the classics.

How are we taking it here in OZ?

Australian 5 year CDS is bleeding higher. This doesn't foreshadow an imminent risk to the Australian banking sector, however it does reflect that the Australian financial system is in all likelihood a source of cheap insurance at these prices. For example, you could pay 2.41% p.a for 5 year DB senior insurance through a CDS, or pay a spread half that amount to take Australian bank senior 5 year insurance. This is called asymmetric investing, this process entails taking cheaper cover that enjoys less of a proximity to the theme initially, however as things worsen correlation increases meaning that you get better bang for your buck , further away from the epicentre.

All of that said , DB is an enormous institution, its resolution or restructuring is on a par with anything we have seen since the GFC, which means spreads will widen here in any of the three bad cases above. As at the time of writing this is particularly evident within tier 2 markets, tier 1 has also suffered today, however the constituent investors generally suffer from a slower reaction time, that said the spreads in this sector were wide to start with.

The impact of higher spreads is simple enough, if they stay here, bank cost of borrowing increases significantly which in turn forces 1 of 2 primary outcomes. Banks absorb the cost and see profitability get kicked in the teeth or banks raise rates out of cycle impacting the real economy and forcing the RBA's hand. This would coincide with a push higher in TD rates and funding spreads, it would challenge bank ROE's and dividend levels.

What are we doing about it?

The fund engaged a long rate position two days ago, roughly speaking the fund took an exposure of 5% of fund assets to Australian government 10 year yields. In addition the fund holds existing put positions in the names of CBA, ANZ and WBC.

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