

# Junior Capital Grows Up

## A Primer on New Bank Hybrid Capital

- **Prepare for a new \$1tr+ market for bank hybrid capital.** High beta and uncertainty on pricing makes it a key arena for future fund performance. In this primer, we walk you through everything we think you need to know to get to grips with this new asset class.
- **Fewer constraints on issuers** - the AT1 structure is very different to the innovative Tier 1 and TruPS instruments it replaces. In Europe, in particular, regulations imply that bondholders would be written down ahead of equity in some scenarios. More seriously, issuers can defer coupons indefinitely even when paying dividends.
- **Who will buy?** Accordingly, we think AT1 bonds will need to find new buyers in HY, equity, private wealth and dedicated funds. The initial experience from recent issuers is very encouraging, but the AT1 market in € could effectively end up doubling the € HY market.
- **Where will they buy?** We expect stronger banks in Europe will typically pay a spread of 500-700bp, while weaker banks will end up paying 800-1000bp in the current market. In the US, AT1 from leading banks will probably trade close to the 350-450bp spread of non-cumulative perpetual perps.
- **Plain old Tier 2?** Despite the bail-in language, the Tier 2 structure looks much less contentious. We expect new vanilla issues to trade at a modest premium (50-100bp) to existing LT2s – if anything we would argue that premium should decline.

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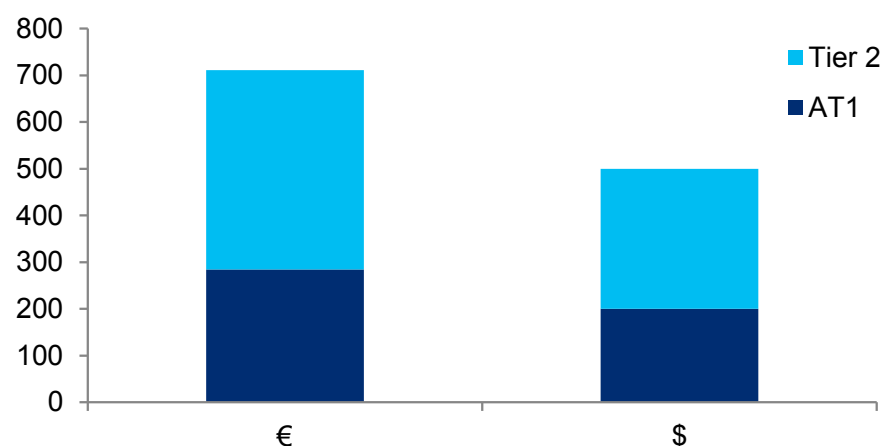
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Figure 1. Citi estimated future AT1 and Tier 2 hybrid debt markets, \$bn



Source: Citi Research

**See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.**

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## Introduction and executive summary

A new era of bank hybrid capital is dawning. The rules, regulations and guidelines surrounding the implementation of Basel III are still being finalised around the world. But the most important pieces have now largely fallen into place. Banks will still have a strong regulatory incentive to issue hybrid debt – indeed, for US banks it is arguably stronger than previously.

While we could nonchalantly seek to greet it with one-liners (Figure 2), the reality is that anyone hoping for simplicity and transparency will be disappointed. The new market will be every bit as, if not even more, complicated than the one it replaces. And unless you've spent the last five years living and breathing every regulatory twist and turn, then really getting to grips with it now is a tall order.

**Figure 2. Fifteen quick questions**

### Fifteen short answers

■ So how much capital do banks need to hold?	■ We reckon big banks will hold total capital to RWAs in the high teens, including 3.5-6% hybrid capital (page 6-7).
■ How much hybrid debt will be issued?	■ We expect \$1-1.4tr (40% AT1, 60% Tier 2, 40% in \$, 60% in €) with at least \$700bn over the next 3-years, based on the regulatory incentive from RWA-based capital ratios (page 7-8).
■ Does the lev. ratio impact the need for hybrid capital?	■ Yes, but less than you'd think, when banks are fully capitalized (page 7-9).
■ How will the new hybrid market compare to the old one?	■ We think they will be almost identical in size, but AT1 is much riskier than the innovative Tier 1 & TruPS it replaces (page 10-11)
■ How much of that can be met by existing hybrids?	■ Grandfathering is unlikely to affect the pace of issuance much going forward, as the capital treatment declines rapidly over the next 3-4 years (page 11-12).
■ How quickly will the new hybrid market grow?	■ We think the incentive for banks to issue early is strong (page 12-13)
■ Who will issue first? Who will buy first?	■ The T2 market is open to most banks with the existing investor base. Funding costs imply the European AT1 will mostly be issued by stronger banks to a mixture of HY, equity, private wealth and dedicated hybrid funds (page 13-14).
■ How different are new Tier 2s to existing LT2?	■ Not very. There's no step-up in non-bullet bonds and statutory bail-in language is written in, but in practice it's similar to LT2 (page 16-17).
■ How different are AT1s to existing Tier 1?	■ US AT1 is quite similar to non-cum. perp. prefs. European AT1 cannot contain dividend stoppers and has mandatory writedown. It should trade wider than existing non-innovative T1s (page 17-18).
■ How important is the mandatory trigger under CRD IV?	■ That depends on the level of the trigger. A low trigger seems quite unlikely to be invoked before a bail-in occurs. We'd be more focused on coupon deferral without the dividend stopper (page 20-23).
■ Where should AT1 bonds price at the moment?	■ We think AT1 out of large US banks should trade at a spread of 350-450bp (page 19). Stronger banks in Europe will probably have to pay a spread of 500-700bp (page 20), weaker banks 800-1000bp (page 20).
■ Writedown or conversion?	■ Bondholders will obviously prefer temporary to permanent writedown. We expect mixed investor preferences regarding temporary writedown versus share conversion (page 23-24).
■ Do other call features matter in the bonds?	■ Yes, look for the regulatory and tax call language (page 26-27).
■ Can hybrids be delivered into CDS contracts?	■ AT1: No, Tier 2: Yes, Tier 2 CoCos: Not under the current contract, but likely yes in a bail-in event under the new contract (page 27-28).
■ My head hurts! Can all this not be simplified a bit?	■ This is complicated stuff, where the devil is in the detail. But we've snuck a few cheat sheets into the piece (page 16, 18, 28 & 31)

Source: Citi Research

But many of us will have to do just that – and pretty soon. By our estimates the market for new-style bank hybrids will grow to at least €450-600bn in Europe and \$400-500bn in the US. Although banks will still be able to count some existing hybrids towards their capital for a transitional period, the bulk of the build-up is likely happen over the next 3-4 years – as grandfathering is phased out and banks use hybrids as a way to comply with the new and higher capital requirements.

With almost \$1tr outstanding of existing bank hybrid debt, rather than the creation of an entirely new market, one could describe it as a giant exchange. Based on our forecasts, net issuance should be pretty small.

But that fails to appreciate the enormous risk transfer that will take place. This is not so much in the new Tier 2 market, which we expect will attract pretty much the same investor base (though with a larger HY component) as the old LT2 market. But the AT1 structure is a very different animal compared to the innovative (essentially "step-up") Tier 1s and the TruPS that it will replace.

Regulations have deliberately removed all incentives to pay coupons and any features that can inhibit recapitalisation of a struggling bank. The European implementation of Basel III, in particular, sets constraints on AT1 eligibility that will leave bondholders with very little protection.

For instance, the European AT1 structure has been criticised for violating the hierarchy of the capital structure, as in certain scenarios, the AT1 hybrids will be written down upon hitting a specified trigger with no impact on outstanding equity. However, as we demonstrate, those scenarios are relatively remote unless the trigger is set at a high level.

If anything, we think it is more important to consider that a European AT1 bond must allow the bank to cease paying coupons at any time – even when it is still paying dividends. As missed coupons are non-cumulative and there is no specified alternative payment mechanism, bondholders in a struggling, but not failing, bank would effectively find themselves in a zero-coupon perpetual where the only upside is the option value in the prospect that the bank might one day decide to resume coupon payments. There can be no incentive in the bonds for the bank ever to do that.

This implies that the European AT1 bonds, especially, have a very binary value – either trading somewhere around par or trading on the option value of a future re-installment of coupons, which most likely implies a valuation well below 50 and quite conceivably even in the teens. There really isn't very much in between. It is an investment based on faith.

The US AT1 structure is less radical (dividend stoppers are allowed and there are no mandatory triggers). In many respects, it resembles the existing non-cumulative perpetual preference shares. However, it too is likely to prove far more volatile than existing instruments like TruPS.

A significant portion of the existing investor base for bank hybrids will not be able to buy these structures – either because of the HY rating or the permanent writedown (or conversion into equity), which isn't permitted in many investment mandates. As such, the AT1 hybrids will have to attract a buyer base of mainly HY and equity investors and private wealth. Presumably, some funds dedicated to buying these instruments will also appear.

This will obviously have an impact on the risk premium investors demand. While spreads on new Tier 2 instruments will likely only be slightly higher than old-style LT2 bonds, AT1 instruments will have to price at a significant concession to much of the existing market. In the US there is a natural pricing reference in the non-cumulative perpetual preference shares – we don't expect new AT1s to trade very differently. In Europe, AT1s should trade wider than non-innovative (essentially non-step) T1 bonds, which in turn already carry considerably higher spreads than the conventional innovative Tier 1s. An equivalent issue under the US structure should trade at a meaningfully lower premium than under the European structure.

What does that mean? It is possible that funding costs will come down further over time, but at the moment we think large, well-capitalised US banks should issue at spread levels of 350-450bp. In Europe, we believe that only the strongest banks can expect to issue at spreads around 500-700bp. For comparison, many of the innovative T1 structures issued in Europe from 2005-07 came at spreads between 120-200bp. Weaker banks will be issuing at spreads of 800-1000bp, which means that the coupon is likely to be in double-digits. The recent Banco Popular AT1 issue in euros came with an 11.5% coupon.

That might seem prohibitively expensive – and indeed the temptation to shrink balance sheet instead must be strong for some would-be issuers. However, as coupons on the AT1 instruments are likely to remain tax deductible in most jurisdictions in Europe (unlike in the US), we believe there is a clear incentive to issue for banks that still consider their cost of equity to be in double-digits.

There is little doubt in our minds that the decisions made on and in this new bank capital debt market will be one of the most important drivers of out- and underperformance for many funds going forward. As such, we reckon it is worth investing the time required to get to grips with its essential features.

## Outline

On the assumption that readers will have very different levels of familiarity with bank capital we have organised the document along the questions that we ourselves posed to our resident experts. These broadly split into four sections:

- **The regulatory framework** – An introduction to Basel III and its European and US implementation seems like the natural place to start. Yet let's be honest – it's complicated (even in a simplified form), it's heavy, and it's not very exciting. So we've put it in the Appendix (questions 17-21). But if you're not a Basel III guru and you want to really understand the hybrid market then do read the appendix first. It'll make the rest of the document seem like a piece of cake (almost!).
- **Market size, characteristics and participants** – With the basic framework in place, we explore hybrid issuance prospects and compare it to the existing market (questions 1-7)
- **The small print** – To understand and to price hybrids one needs to analyse the features in detail (questions 8-11).
- **What else?** Finally, we discuss a few other relevant topics, like grandfathering, rating agency treatment, CDS deliverability and a summary term sheet of existing hybrids (questions 12-16).

Much of the implementation of Basel III is subject to transitional rules. For clarity of exposition we have focused mostly on the final arrangements. In our experience, markets tend to look through to the fully-loaded numbers almost immediately. We expect that banks to the extent possible will seek to meet and surpass minimum requirements much faster than what the transitional arrangements allow for to avoid undue attention.

## How much hybrid debt will be issued?

We anticipate that the new market for bank hybrids will grow to about €450-600bn in the main European currencies (euros plus sterling and Swiss francs) and to about \$400-500bn in the dollar market for a combined market size of \$1-1.4tr (€750-1000bn) over coming years. We estimate the split between AT1 and Tier 2 debt to be around 40:60.

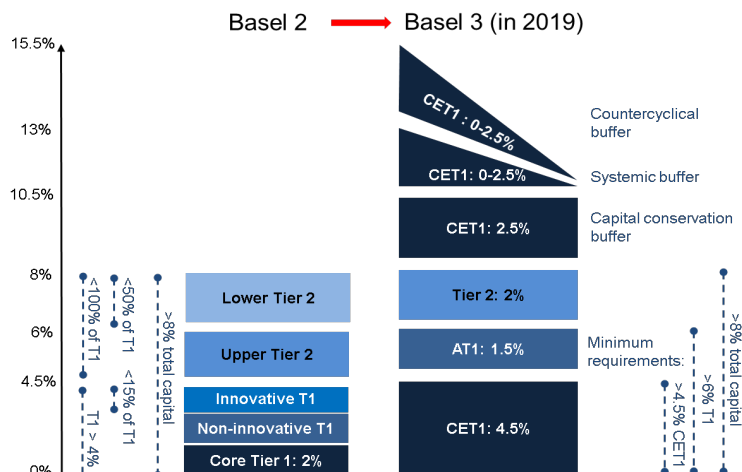
For the individual banks, calculating the 'right' amount of hybrid capital to hold is, in theory at least, part of a complex optimisation with many moving parts. Subject to the capital ratio that is most constraining, banks should calculate the marginal cost of issuance versus the marginal return on assets. Simply put, banks can obviously choose to reduce their balance sheet rather than add (hybrid capital).

Yet in aggregate, we believe that you get a reasonable estimate of likely market size by calculating how much of a direct incentive to issue hybrid capital the Basel III framework provides through the minimum capital ratios and the leverage ratio.

### 1. How much capital do banks need to hold in total?

It's easy to get lost in the myriad of ratios and buffers that have been introduced with the transition from Basel II to Basel III (Figure 3). But when they are all added up, it is reasonable to assume that the largest systemic banks that make up the bulk of the hybrid capital issuance will end up holding total capital ratios of 15% or more under normal market conditions. Of that, banks will get credit for up to 3.5% hybrid capital.

Figure 3. Basel II versus Basel III requirements from 2019



Source: Citi Research

If anything, 15% might be quite conceivably on the low side in some jurisdictions. Despite the attempts to prevent gold-plating under CRD IV, some national regulators around Europe are de facto imposing capital requirements above the Basel III level on some of their banks, as discussed in the appendix.

Banks will also want to keep a certain margin of additional capital to avoid being singled out by regulators, bond- and shareholders. Obviously, the consequences of eating into the buffers are less severe than for breaching minimum capital requirements. So banks may well choose to hold a smaller surplus to the top end of the buffers than they did under Basel II, but banks will still want to avoid the stigma and the prospect of running into restrictions on pay-outs.

**Figure 4. Bank Q2 '13 RWAs & regulatory incentive to issue hybrid capital, Crncy Bn**

Bank	Ccy	RWA	AT1 @ 1.5%	T2@ 2%
Alpha Bank	€	7.3	0.1	0.1
Banco BPI	€	5.5	0.1	0.1
Banco Espirito	€	2.0	0.0	0.0
Banco Popolare	€	55.7	0.8	1.1
Banco Popular	€	87.6	1.3	1.8
Banco Santander	€	539.8	8.1	10.8
Bankinter	€	24.4	0.4	0.5
Barclays	€	564.1	8.5	11.3
BBVA	€	347.6	5.2	7.0
Bco de Sabadell	€	80.1	1.2	1.6
BNP Paribas	€	593.0	8.9	11.9
BP Milano	€	42.0	0.6	0.8
CaixaBank	€	151.1	2.3	3.0
Commerzbank	€	231.3	3.5	4.6
Cred. Agricole Grp	€	542.8	8.1	10.9
Credit Suisse	€	227.1	20.4	4.5
Danske Bank	€	111.1	1.7	2.2
Deutsche Bank	€	367.0	5.5	7.3
DnB	€	124.7	1.9	2.5
Erste Bank	€	108.5	1.6	2.2
HSBC	€	936.2	14.0	18.7
ING	€	304.0	4.6	6.1
Intesa Sanpaolo	€	299.3	4.5	6.0
KBC	€	95.6	1.4	1.9
Lloyds Banking	€	358.5	5.4	7.2
Monte dei Paschi	€	92.8	1.4	1.9
Nat. Bk. of Greece	€	4.8	0.1	0.1
Natixis	€	128.2	1.9	2.6
Nordea	€	172.1	2.6	3.4
Raiffeisen Bank Intl	€	84.0	1.3	1.7
RBS	€	563.6	8.5	11.3
SE Banken AB	€	68.1	1.0	1.4
SHB	€	55.5	0.8	1.1
Societe Generale	€	353.1	5.3	7.1
Standard Chartered	€	395.3	5.9	7.9
Swedbank	€	52.8	0.8	1.1
UBI Banca	€	62.5	0.9	1.3
UBS	€	193.3	17.4	3.9
UniCredit	€	430.9	6.5	8.6
	€	8,863.4	164.5	177.3
Bank of America	\$	1,310.4	19.7	26.2
BNY Mellon	\$	145.8	2.2	2.9
Goldman Sachs	\$	600.2	9.0	12.0
JP Morgan	\$	1,587.4	23.8	31.7
Morgan Stanley	\$	448.2	6.7	9.0
State Street	\$	82.5	1.2	1.6
Wells Fargo	\$	1,393.4	20.9	27.9
	\$	5,568.0	83.5	111.4

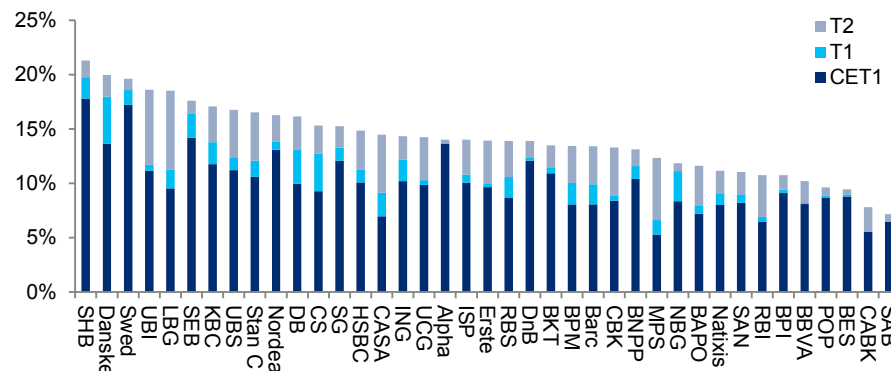
Source: Citi Research

Another motivation to keep a higher capital level than required is funding costs. Explicit depositor preference, as reflected in the likely bail-in-ability of even senior unsecured debt under the RRD, implies not just a higher loss given default/bail-in but also a higher *probability* of loss for senior unsecured bondholders, everything else equal. Banks that are reliant on wholesale funding, in particular, may have to keep more subordinated debt to keep their senior unsecured funding costs down.

So we think many of the largest systemic banks will get to the high teens – or higher still. Of that, we would anticipate that 12-14% would be equity and 3.5-5% would be hybrid capital. Remember, in the UK the total capital requirement for global systemic bank may well be 17%, if the ICB recommendations are implemented. In Switzerland, the SIFIs are required to total capital amounting to 19%. Rabobank is targeting 20% by 2016.

Indeed, many European banks are already in the region between 14%-16% on a pro-forma Basel III basis (Figure 5). Admittedly, that's based on existing hybrid debt outstanding, much of which will lose its capital value over time. In addition, it doesn't factor in the Basel Committee's review of RWA calculations, which may add 7-10% to existing RWA figures, if implemented. But it still underscores that the banking sector is working its way towards a total capital ratio in the upper teens. It also illustrates that many banks have existing hybrid capital debt outstanding that amounts to 4-5% of RWA.

**Figure 5. Pro-forma Basel III capital ratios for select European banks, Q2 2013**



Source: Citi Research, Company reports

## 2. How much issuance will the RWA capital ratios lead to?

Figure 4 lists the RWAs of the main European and US banks, which are covered by Citi Equity Research, and the incentive to issue hybrid capital that conveys. Based on the 1.5% gap between the CET1 and T1 minimum capital requirement and the 2% gap between the T1 and the total capital requirement, we have calculated how much capital they are incentivized to issue at the current level of RWA.

Deutsche Bank has already indicated that it plans to issue €6bn of AT1 bonds – an amount that corresponds almost exactly to 1.5% of their current RWAs. Similarly, Barclays has stated that it intends to issue 1.5% of AT1 capital and 0.5% of Tier 2 capital, while Danske Bank has stated that it seeks to hold 4% of hybrid capital.

Based on these figures, European banks 'should' issue at least €165bn of AT1 and €177bn of T2 debt. The 39 banks captured in Europe comprise about two-thirds of the assets of the European banking sector, implying that total hybrid issuance might approach about €500bn.



If anything, we'd argue that the risk around that figure is to the upside. For instance, should the Basel Committee on Banking Supervision (BCBS) push through the changes to risk weights that it is currently contemplating, then RWAs could easily grow by another 5-10% in our opinion. Moreover, as discussed above, we would expect many banks to hold a hybrid capital buffer. An average buffer of 0.5% buffer adds another €45bn of issuance for each of AT1 and T2 capital.

In the US (where the banking sector is much more concentrated), the straight incentive to issue is about \$83bn of AT1 and \$111bn of T2. That would imply a total market just under \$200bn, but again with a buffer and a significant amount of issuance from foreign banks (not least from EM banks<sup>1</sup>) we think the market size is likely to end up exceeding \$400bn. Moreover, it is likely that there will be some issuance resulting from the leverage ratio.

### 3. Does the leverage ratio impact hybrid issuance?

The leverage ratio is calculated on Tier 1 capital, as opposed to just common equity, which means that issuing AT1 instruments is likely to be a much cheaper way of filling any capital shortfalls than equity issuance. At first glance, it appears that this could be a major driver of AT1 issuance. But by how much?

The implementation of the leverage ratio is less developed than the RWA-based capital ratios and it has been introduced in Basel III under Pillar 2, leaving national regulators with much more discretion than on the RWA-based capital ratios (though with a view to moving it to Pillar 1 in future). Already it appears that there will be much greater disparity between countries than in the implementation of the minimum capital requirements:

- US regulators have raised the leverage ratio for the US banks operating under the Advanced Approach to 5% (and 6% for their deposit-taking guaranteed subsidiaries).
- The PRA published an assessment of UK banks where the leverage ratio was calculated to CET1 capital only<sup>2</sup>. However, Barclays has since been permitted to include an AT1 instrument with a 7% trigger in the leverage ratio calculation, and other UK banks may also consider this in future, though we have not included it in our estimates.
- Elsewhere in Europe, the Dutch regulator has proposed raising the minimum threshold to 4%, but we are assuming that under CRD IV, the level of the leverage ratio will remain at 3%.
- In Switzerland, the 'too big to fail' regulations set the leverage ratio requirement relative to the size of the risk-weighted requirements with different levels between 3.1% and 4.56%. Expected total capital requirements for leverage ratios will be 4.3% for Credit Suisse and 4.2% of UBS<sup>3</sup>.

Matters are complicated further by the revised proposal for calculating the Exposure Measure (which forms the denominator in the leverage ratio), which the BCBS published in July. The BCBS is effectively seeking to widen it by: 1) counting repo on a gross, rather than net, basis, 2) accounting for derivative exposures at replacement cost regardless of collateral paid, and 3) counting CDS sold at full notional unless a bank has

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<sup>1</sup> Already banks such as VTB and Banco do Brasil have issued Basel III-compliant AT1 bonds in dollars.

<sup>2</sup> And the capital base was based on a 'stressed' scenario.

<sup>3</sup> [http://www.snb.ch/en/mmr/reference/stabrep\\_2013/source/stabrep\\_2013.en.pdf](http://www.snb.ch/en/mmr/reference/stabrep_2013/source/stabrep_2013.en.pdf)



bought offsetting protection of equal or longer maturity in the same reference entity. Our US credit strategy team has estimated that these BCBS modifications, if implemented in full, would reduce reported leverage ratios by at least 45bp in the US and by 35bp in Europe<sup>4</sup>. Currently, these BCBS proposals are not reflected in CRD IV, and it is unclear to what extent the US proposal has taken or will take them into account.

However, assuming that national leverage ratios remain as outlined in the four bullet points above and that the BCBS proposal will be implemented, we can tentatively assess how the leverage ratio will impact AT1 issuance for a subset of banks.

For the seven largest US banks and nine large European banks we have used estimates of the Exposure Measure, calculated by Citi Equity Research<sup>5</sup>, in Figure 6 to estimate how much Tier 1 capital banks would require to meet their national minimum leverage ratio requirements plus a 0.5% buffer (column f).

Figure 6. Incentive to issue AT1 hybrids from leverage ratio requirement (Current level of CET1 capital), Currency Bn

Bank	Cur	B3 CET1	B3 T1	Exposure measure	B3 RWAs	Leverage ratio target	Min T1 requirement	AT1 issuance incentive	Rel. to RWA-capital ratio incentive
		(a)	(b)	(c)	(d)	(e)	(f) = (c)*(e)	(g) = (f)-(a)	(h)
Bank of America	\$	126	137	2,966	1,310	5.5%	163	37	1.9x
BNY Mellon	\$	14	15	380	146	5.5%	21	7	3.3x
Goldman Sachs	\$	56	63	1,615	600	5.5%	89	33	3.7x
JP Morgan	\$	148	160	3,698	1,587	5.5%	203	55	2.3x
Morgan Stanley	\$	42	47	1,316	448	5.5%	72	30	4.5x
State Street	\$	12	13	270	82	5.5%	15	3	2.2x
Wells Fargo	\$	120	133	1,946	1,393	5.5%	107	<0	-
		518	568	12,191	5,568		670	166	2.0x
Deutsche Bank	€	37	48	1,583	367	3.5%	55	8	1.4x
BNP Paribas	€	62	70	1,844	593	3.5%	65	3	0.3x
Credit Agricole Group	€	54	64	1,802	543	3.5%	63	9	1.1x
Societe Generale	€	33	37	1,178	353	3.5%	41	8	1.5x
		186	219	6,407	1,856		224	28	1.0x
Credit Suisse	€	21	30	980	227	3.5%	34	13	0.6x
UBS	€	22	24	839	193	3.5%	29	8	0.4x
		43	54	1,819	420		64	21	0.6x
Barclays	€	46	57	1,865	564	3.5%	65	-	-
HSBC	€	31	107	2,221	936	3.5%	78	-	-
RBS	€	150	61	1,425	564	3.5%	50	-	-
		227	225	5,512	2,064		193	-	-

Source: Citi Research

Subtracting their common equity provides an estimate of the leverage-ratio gap that banks could potentially fill with AT1 issuance (column g). We can now compare the incentive to issue AT1 under the leverage ratio with the straight incentive from RWA-based capital ratios above in Figure 4 in column h.

So based on the current level of CET1 outstanding, it's apparent that the leverage ratio could have a big impact on AT1 issuance from US banks, where the total incentive to issue coming from the leverage ratio is twice the incentive from the RWA-based capital ratios. This is in part due to the higher threshold for the leverage ratio, but it is also apparent that the Exposure Measure penalises the banks that have a large capital markets business with associated off-balance-sheet exposures, which may lead them to issue more AT1.

<sup>4</sup> See 'The Legacy of the Bank Leverage Ratio (for Credit)' J. Shoup, 18 September.

<sup>5</sup> See 'Banking on Europe: The Road Ahead: The Turning Point', K. Lahkani et al., 25 September and 'Leverage Ratio May Get Even Tougher', K. Horowitz et al., 9 September.

**Figure 7. Issuance incentive from leverage ratio (CET1 capital @12% of RWAs), Currency Bn**

	AT1 iss. incentive w. CET1 @ 12% (i) = (f)-0.12*(d)	Rel. to RWA incentive (j)
Bank of America	6	0.3x
BNY Mellon	3	1.5x
Goldman Sachs	17	1.9x
JP Morgan	13	0.5x
Morgan Stanley	19	2.8x
State Street	5	4.0x
Wells Fargo	<0	-
	63	0.7x
Deutsche Bank	11	2.1x
BNP Paribas	<0	-
Credit Agricole	<0	-
Soc. Gen.	<0	-
	11	0.4x
Credit Suisse	7	0.3x
UBS	6	0.4x
	13	0.3x
Barclays	-	-
HSBC	-	-
RBS	-	-
	-	-

Source: Citi Research

For European banks, the incremental incentive is smaller, but some of the banks with large capital markets businesses may also issue AT1 to improve their leverage ratios. This obviously doesn't apply to the UK banks, and the Swiss gold-plating also implies that the incentive to issue hybrids to meet RWA-based capital ratios ought to fill up the entire leverage ratio requirement also.

### The interplay between the leverage ratio and minimum capital requirements

On this basis, it might be tempting to conclude that the leverage ratio could increase the size of the AT1 market considerably. However, there is one caveat - the implicit assumption above that CET1 stays at current levels.

In reality, banks will most likely continue to build up their common equity levels, as they seek to meet the conservation, counter-cyclical and systemic buffers. And while that equity does not change the incentive to issue hybrid debt to meet the minimum capital requirements, it would evidently count towards the leverage ratio

For instance, the leverage-ratio capital shortfall becomes significantly smaller if we assume that all banks over the coming years raise their level CET1 to RWAs to, say 12%. As illustrated in Figure 7, at that level only a minority of (US) banks would be incentivised to issue AT1 for leverage ratio purposes.

Indeed, as these banks get round to trimming some of the items that impact the Exposure Measure under the BCBS proposal, the need for AT1 to boost the leverage ratio is likely to decline further.

So the bulk of the AT1 issuance is still likely to come from the straight incentive to issue under the minimum capital requirements. However, we do expect to see individual capital-markets-orientated banks issuing AT1 instruments to boost the leverage ratio. Grandfathering of existing T1 may help to reduce immediate leverage ratio deficits, but this issuance is especially likely over the next couple of years, as banks drive to meet future leverage targets early without diluting shareholders. As such, we have factored in a modest amount of leverage-ratio driven issuance in our total AT1 forecast for the US.

#### 4. How different are the new and old hybrid markets?

By our estimates, the current outstanding volume of bank hybrids amounts to about \$980bn, with about 70% being Tier 2 debt and just under half the outstanding being issued in dollars (Figure 8). However, that's down from a peak of just over \$1.2tn in 2010. Our forecasts imply that the new hybrid market will be almost identical in size.

Arguably, the incentive to issue hybrid debt under the old Basel regime was a bit stronger than under Basel III (see Figure 3). Of the 8% total capital ratio target, tier 2 debt could make up to half (i.e. 4% compared to 2% under Basel III) and non-equity instruments could make up to half of the Tier 1 capital (i.e. 2% compared to 1.5% under Basel III). However, the low minimum requirement for common equity (effectively 2%) meant that comparatively few banks were pushing against the limit and, in turn, many were not fully using the incentive to issue hybrid debt.

Under Basel III, we expect the high level of common equity will make banks more likely to optimise their capital structure to enhance the return on capital. Moreover, against the prospect of bail-in we think the need to keep senior unsecured funding costs down will prompt many issuers to hold more subordinated debt than regulations incentivise them to do.

There is no question that much of the expansion of the new bank hybrid debt market will occur through replacement of existing structures. From a net issuance perspective, this will presumably be significantly easier than attracting \$1tr of new capital would have been. Indeed, we expect that the transition of the Tier 2 debt market will be comparatively smooth, as the new structure in reality isn't that different to the existing issues (see question 8). However, we expect that the buyer base for AT1 instruments will be quite different to existing holders of innovative Tier 1s and TruPS (see question 7).

#### 5. How much of that can be met by existing hybrids?

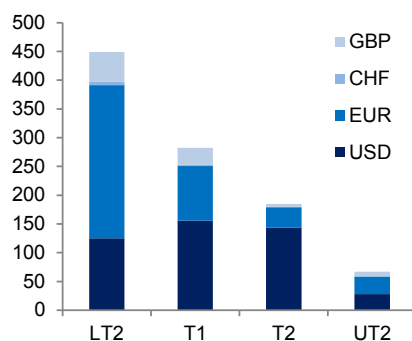
Grandfathering of existing hybrids obviously has the potential to slow down the pace at which banks issue new style instruments (see question 12 for more detail on grandfathering arrangements). But by how much?

We estimate that European banks currently have €124bn of T1 debt outstanding that would currently be eligible for grandfathering<sup>6</sup>, giving them ~€100bn of Tier 1 capital treatment. Of that, €84bn is issued in European currencies.

In other words, based on the amounts that European banks are incentivised to issue there is already a significant gap to fill. Moreover, the grandfathered amount is set to decline rapidly – because most innovative Tier 1s lose their grandfathering after the first call date and secondly because of the linear amortisation of the grandfathering. By 2017, we estimate that the capital treatment from existing Tier 1s issued in euros will only amount to about €38bn. As such, grandfathering is unlikely to delay the build-up of the new AT1 market meaningfully.

In the Tier 2 market the current outstanding is around €310bn. We estimate that the capital benefit from grandfathered instruments and new style Tier 2s next year will be about €190bn, dropping to €60bn by 2017 – added to which, there will be some Tier 2 grandfathering from remaining eligible Tier 1 issues. As such, most banks are likely to find that their Tier 2 grandfathering is also well below the level that they are incentivised to keep already in 2014 or 2015. And therefore we don't expect that the grandfathering of existing debt to slow the transition meaningfully.

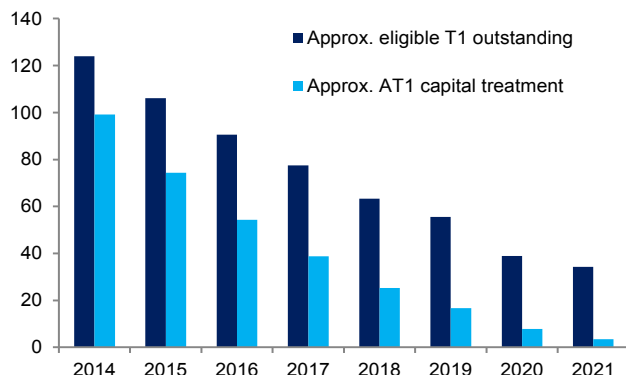
Figure 8. Existing hybrid market by tier and currency, \$bn



Source: Citi Research

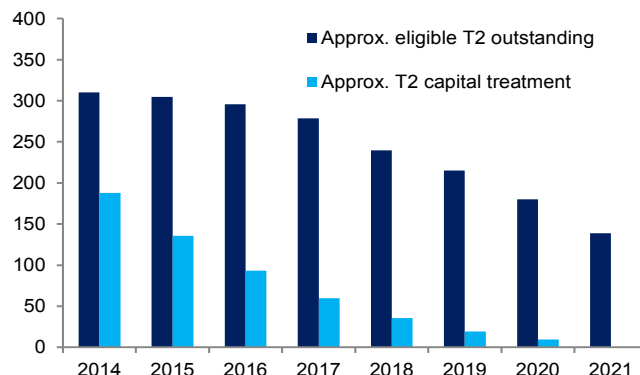
<sup>6</sup> The data quality on step-ups is not fully comprehensive. Therefore these figures should be regarded as approximate.

Figure 9. European bank T1 outstanding & AT1 capital treatment, €bn



Source: Citi Research, Bloomberg

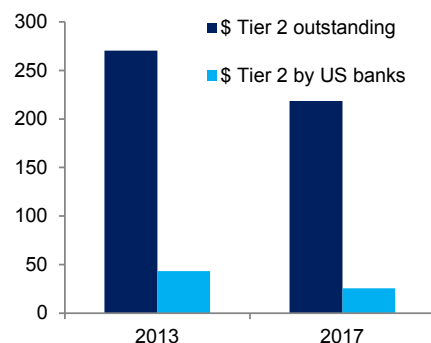
Figure 10. European bank T2 outstanding & T2 capital treatment, €bn



Source: Citi Research, Bloomberg

In the US, the T1 market outstanding in dollars is sizeable at about \$167bn. However, the vast majority of that was issued by foreign (European and other) banks. The eight banks in our sample reported only preferred stock on the balance sheet of \$34bn at the end of 2012. Included in that figure are about \$10bn of the cumulative TruPS that will not be grandfathered after 2016. As such, even allowing for the permanent grandfathering of existing non-cumulative prefs, we estimate that the large US banks will be incentivised to issue at least \$70bn of AT1 instruments under the new regime.

Figure 11. \$ Tier 2 outstanding, \$ bn



Source: Citi Research

As in Europe, there is a comparatively large amount of Tier 2 debt outstanding – currently around \$270bn. However, only about \$43bn of this has been issued by US banks and by 2017 the grandfathering will have largely disappeared, which means that we would expect to see US banks becoming more active in issuing Tier 2 debt going forward.

## 6. How quickly will the new hybrid market grow?

Although US issuers are still waiting for clarification regarding holdco requirements (see question 20), we expect the hybrid market to ramp up quickly, if market conditions are conducive. In 3-4 years it could well surpass \$700bn in our opinion. We base that on the following observations:

- **The need to boost capital is front-ended.** Banks will be keen to demonstrate that they are surpassing the final Basel III metrics as quickly as possible – to avoid regulatory attention and to avoid having share price performance dragged down by expectations of a future capital raising. Analysts increasingly look through transitional arrangements to the fully-loaded numbers.
- **The leverage ratio.** Over the next year, the pressure point for many banks will be the leverage ratio. A desire to lift the leverage ratio faster than retained earnings can deliver will probably lead to AT1 issuance.
- **The economic incentive to issue is strong.** Pre-tax coupons in the region of 7-9% for stronger issuers compare with a cost of equity typically in excess of 10%.
- **Grandfathering wears off quickly.** US regulators have explicitly restricted grandfathering of existing issues of large banks to three years. Even in Europe, where the grandfathering follows the Basel III timeline, the capital benefit erodes gradually. As discussed above, we estimate that the actual T1 capital benefit for European banks will only be €38bn by 2018.

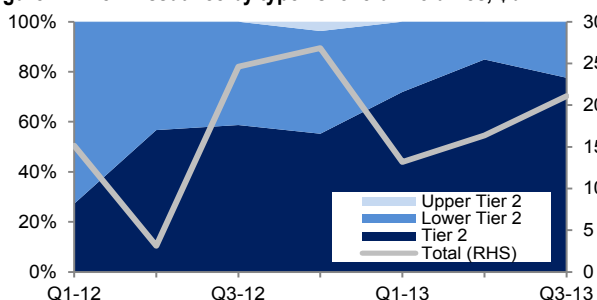
- **Liability management exercises may speed up the transition.** As the grandfathering amortises, it becomes progressively less efficient for banks to leave outstanding existing issues that don't qualify under the new regime – for many bonds that threshold will probably be reached when the grandfathering is down to 40-50% (2017-18). Moreover, regulators are likely to put banks under increasing pressure to clean up the capital structure once the more immediate issue of raising capital levels has been addressed.

## 7. Who will issue first? Who will buy first?

New Tier 2 structures have already accounted for more than 75% of total Tier 2 issuance in recent quarters (see Figure 12). Moreover, volumes have been almost on par with the peak issuance period in 2006 and 2007, suggesting that there is good market access for a broad set of issuers. Until recently, the bulk of the issuance has taken place in dollars, but recently the European market has shown signs of taking off (Figure 13).

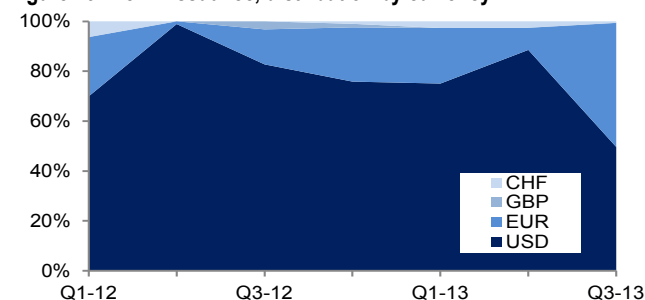
The differences between old-style LT2 and new Tier 2 are not enormous (see question 8), so we would expect that the buyer base will be much the same, albeit with more HY participation than previously.

Figure 12. Tier 2 issuance by type vs. overall volumes, \$bn



Source: Citi Research, Dealogic

Figure 13. Tier 2 issuance, distribution by currency



Source: Citi Research, Dealogic

The AT1 market has been slower to pick up. Issuance since the beginning of 2012 has only amounted to about \$30bn. Again, the US has been leading with various issuers bringing Basel-III compliant instruments – including several EM banks. However, as mentioned above, US issuers themselves are to some extent holding off until they get further clarity on a future 'single-point-of-entry' resolution regime (see question 20).

In Europe, we have seen a few Swiss franc issues to comply with the Swiss rules, but the first AT1 issue in euros had been anticipated for some time.

It was widely expected that the market would only be open to a systemically important bank with a strong balance sheet. After all, the mandatory writedown or conversion language in AT1 will rule out a substantial portion of the conventional buyer base which has mandates that don't permit conversion into equity. The fact that the overwhelming majority of AT1 hybrids will be rated HY has also been regarded as an issue – the €200-250bn of AT1 issuance in our forecast would effectively double the size of the outstandings in the € HY market (based on the bonds in the iBoxx € HY index).

So it probably came as something of a surprise to many when the first AT1 deal in euros was done by Banco Popular – a mid-sized Spanish bank that isn't currently paying dividends. The unrated deal was reportedly three times oversubscribed, with an even split between asset managers (47%), hedge funds (40%) and banks (7%). More than 90% was reportedly bought by investors based in core Europe – international investors were apparently undeterred by the fact that only 2% was placed domestically.

While many of the first hybrids have had a high allocation of private wealth, not least out of Asia, the buyer base has broadened during 2013 with more interest from institutional investors. We expect future deals will be bought by a mixture of HY investors, IG investors using off-benchmark buckets, retail/private wealth, conventional equity investors attracted by high coupons and eventually, the dedicated hybrid funds, which some fund managers are already in the process of creating. Their demand is likely to be fickle – at times the window will be entirely shut. The ECB's asset quality review next year will test the resilience of the market.

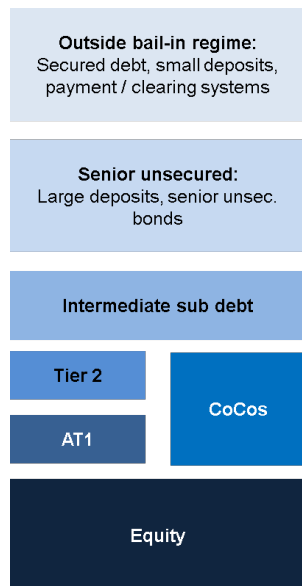
However all in all, we view the Banco Popular deal as a very bullish sign for the European AT1 market. It illustrated that at the moment the market is open for issuers that are willing to pay the appropriate coupon.

If there is a constraint right now, then it is the high cost of issuance. Even after tax, it is debatable whether paying an 11.5% coupon is preferable to reducing capital requirements through balance sheet shrinkage instead (assuming the bank has a choice).

Until funding costs come down further, we still expect that the bulk of the AT1 issuance to come from the larger, higher quality, better rated banks.

## Explain the mechanics of hybrids within the Basel III capital structure

Figure 14. Basel III bank capital structure



Source: Citi Research

We have already discussed the basic capital structure under Basel III, but before going into the detailed features, that there are a couple of additional elements to consider, as illustrated in Figure 14.

### Intermediate subordinated debt

First, there is scope for a layer of subordinated debt that sits in between the senior unsecured debt and Tier 2 capital. As reflected in Article 39(2) of the RRD, such intermediate subordinated debt would have a maturity of more than one year, be subordinated to senior debt, but would rank senior to Tier 2 debt and would not count towards total capital.

Why would banks want to issue such instruments? To create an additional buffer of subordination that would lower senior unsecured funding costs without having to pay up the full cost of hybrid capital. We have yet to see any such issuance, though. And if market conditions are benign, then most banks may just stick to Tier 2 issuance.

### CoCos that are not standard AT1 instruments

Second, there is the issue of Contingent Convertibles (CoCos). Under CRD IV, all AT1 instruments must have specific writedown or conversion language, which technically means that they are CoCos. But we also expect to see some CoCo issuance in Europe that doesn't fit the standard CRD IV-compliant AT1 structure.

These are hybrids that will mostly be issued with the specific purpose of satisfying national Pillar 2 requirements in jurisdictions including Switzerland, the UK, Belgium, Denmark and Ireland.

They can come with a host structure that either follows the AT1 or the Tier 2 framework, but the trigger is set at a different level to the 5.125% required under CRD IV. Bonds we have seen to date tend to have either a 'high trigger' for going-concern conversion or writedown at 7% CET1/RWAs, or a 'low trigger' at 5%.

For instance, the Swiss regulator requires as much as 9% of RWAs in other loss-absorbing capital (see question 19), like CoCos, of which 3% must have a high trigger. The remaining 6% can have a low trigger.

This implies that a CRD IV-compliant AT1 with a 5.125% trigger would only count towards the low-trigger capital, but a CoCo based on a Tier 2 host but with a 7% trigger, like CS's 7.875% issue from 2011, would count towards the high-trigger capital.

In the UK, the PRA's suggestion that mandatory conversion/writedown be set at 7% is likely to be another example of non-conventional AT1s, although UK banks will not be allowed to use a Tier 2 host for that high-trigger capital.

It also bears mentioning that the EBA issued a recommendation with its stress tests in 2011 that banks maintain a Core Tier1 ratio of at least 9%, where part of that capital could be made up by so-called "Buffer convertible Capital Securities", which shared many characteristics with AT1, albeit slightly more flexible on some, except that the loss absorption trigger be set at 7% or higher, until the implementation of CRD IV.



## 8. How different are new Tier 2s to existing Lower Tier 2?

New Tier 2 bonds with a vanilla structure are similar to existing Lower Tier 2 debt in most respects.

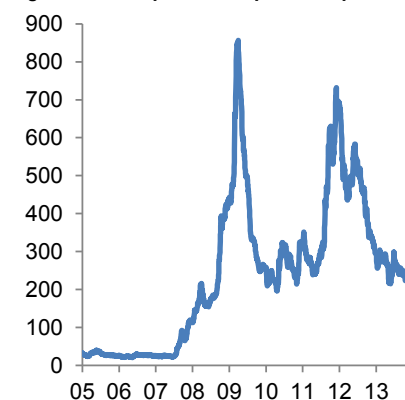
Figure 15. Comparing intermediate sub debt & new-style Tier 2 structures to old-style Lower Tier 2

		-----Basel III regime -----			Old European regime
		Intermediate sub. debt	Tier 2	Dated CoCos	Lower Tier 2
Tenor		>1yr	Typically 10yr, 10CN5 or longer	Typically 10yr, 10CN5 or longer	>5yr (
Incentive to redeem:		Not permitted	Not permitted	Not permitted	Permitted
Coupon deferral discretion		N/A	N/A	N/A	N/A
Deferral settlement		N/A	N/A	N/A	N/A
Subordination		Subordinated (senior to Tier 2)	Subordinated (senior to T1)	Subordinated (pari passu w. Tier 2)	Subordinated (senior to T1)
Going-concern loss absorption	Trigger	N/A	N/A	* 'High trigger': CET1> 7% * 'Low trigger': CET>5%	N/A
	Mechanism	N/A	N/A	* Writedown * Conversion to shares	N/A
PONV mechanism under a statutory regime #		*Permanent writedown * Conversion to shares	* Permanent writedown * Conversion to shares	* Permanent writedown * Conversion to shares	* Not envisaged
Incentives to issue:		* Buffer to senior creditors * Eligible for bail-in	* Tier 2 capital * Eligible for bail-in * Buffer to senior creditors	* Tier 2 * Eligible for bail-in * Incremental Pillar 2 benefit * Rating agency equity credit * Buffer to senior creditors	* Tier 2 capital * Buffer to senior creditors

Source: Citi Research. # PONV expected to be covered by a statutory regime in the EU from 2015. Note: Regulatory capital treatment amortises over the final five years

The two principal differences are that the statutory bail-in regime is referenced in the risk factors of the bond documentation (no matter which legal jurisdiction it is issued under) and that callable Tier 2s will no longer have an incentive to redeem, like a step-up coupon. How much do these features matter?

Figure 16. European LT2 spreads, bp



Source: Citi Research, MarkIt

The lack of step-up may affect the pricing somewhat as there is a greater likelihood that bonds will be priced to maturity. That said, the last few years illustrate how little protection as a 50bp step up provides as an economic incentive to call in a period of serious market volatility (see Figure 16).

The bigger debate is whether the Point-of-Non-Viability (PONV) language that references the statutory bail-in regime being introduced in Europe demands a premium (the US already has a statutory bail-in regime).

To some extent the answer depends on whether old-style hybrids will formally be captured by the RRD and that isn't entirely clear yet. But many countries now already have bail-in legislation in place and we struggle to see why regulators would spare existing subordinated debt holders in a situation where an ailing bank needs recapitalisation<sup>7</sup> – especially given the Commission's tougher stance on state aid. So for most purposes we don't think the bail-in language should cause a significant price difference between new Tier 2 bonds and old Lower Tier 2 bonds.

The exception is when Lower Tier 2s have been issued under foreign law (for European bank bonds that means outside the EU). For instance, a US court might not permit the statutory bail-in of a bank bond by a European regulator, unless this is contractually written into the Terms & Conditions. The court cases in the US and in the UK resulting from the bail-in of subordinated Anglo Irish bondholders have the potential to make this difference more apparent.

<sup>7</sup> Perhaps very retail orientated deals might be spared, but even some of these have been bailed-in in Spain.

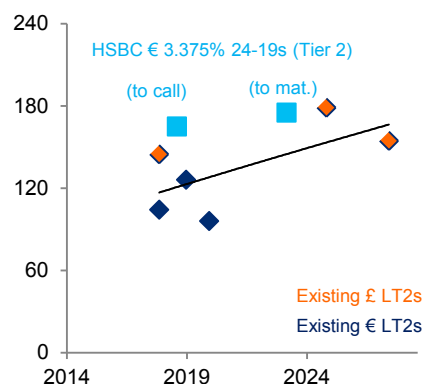
Under the RRD (article 50), bonds issued outside the EU must contain a contractual provision that recognises the statutory bail-in powers to be eligible for capital treatment. This greatly diminishes the likelihood that bondholders of new Tier 2s can be legally remote from bail-in in future.

There is also discussion in the market as to whether existing hybrids issued out of foreign trust entities are safer, because they are more remote from national regulators. However, we tend to believe that regulators would bail-in the preferred or subordinated structures that sit between the trust and the bank instead.

Based on a few of the recent new-style Tier 2 issues, the market appears to be putting a premium of 30-50bp to existing LT2 issues on low-beta banks and about 60-100bp on higher beta banks. The three charts below show the spread differentials for HSBC, SocGen and Intesa Sanpaolo.

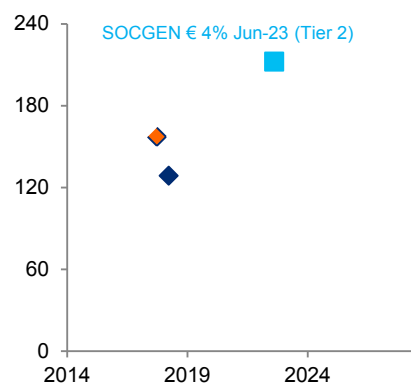
We would, if anything, argue that the differential should be smaller than that (as it is in the US), but scarcity of existing issues and expectations that they may be LME'd is likely to sustain it for the time being.

Figure 17. HSBC Tier 2s vs LT2 curve, bp



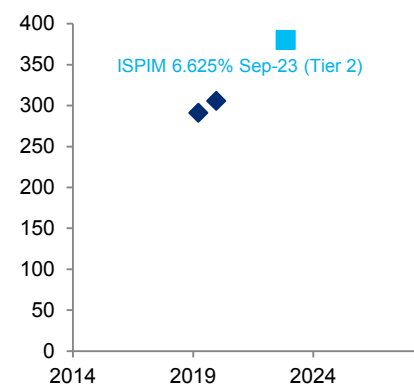
Source: Citi Research, Bloomberg. Pricing as of 24-10-13

Figure 18. SocGen Tier 2s vs existing LT2s, bp



Source: Citi Research, Bloomberg. Pricing as of 24-10-13

Figure 19. Intesa Tier 2s vs existing LT2s, bp



Source: Citi Research, Bloomberg. Pricing as of 24-10-13

## 9. How different are AT1s to existing Tier 1?

Conceptually at least, it can be convenient to think of loss absorption features as equivalent to selling out-the-money options. And using that analogy, AT1 bonds have more embedded options and some of them are a lot closer to being in the money than the Tier 1 instruments that they will replace. As illustrated in Figure 20, CRD IV, in particular, leaves AT1 investors with precious few controls by design.

### Comparing AT1 to non-innovative T1 and non-cumulative prefs

Conceptually, the new AT1s are closest to non-innovative T1 in Europe and non-cumulative prefs in the US.

Indeed, the existing non-cumulative perpetual pref structure has been declared Basel III-compliant for US entities. It doesn't have an explicit coupon restriction when the combined buffer is broken, and they don't have PONV language written in, but given the long-standing statutory bail-in regime in the US and the FDIC's new resolution powers, a contractual bail-in provision has not been deemed necessary. As with Tier 2 debt above, we would argue that the PONV language mostly makes a difference when compared to existing instruments issued under foreign law.

Figure 20. Comparing new-style Additional Tier 1 & perpetual CoCos to old-style European & US T1 regimes

	-----Basel III regime -----			Old European regime		Old US regime	
	CRD IV-compliant AT1	Basel III-compliant AT1 (incl. US)	Perpetual CoCos	Existing innovative T1	Existing non-innovative T1	TruPS / ETruPS	Non cumulative prefs
Tenor	Perpetual (>=NC5)	Perpetual (>=NC5)	Perpetual (>=NC5)	Perpetual (>=NC10)	Perpetual (>=NC5)	>=30yr (>=NC5)	(Mostly) perpetual
Incentive to redeem:	Not permitted	Not permitted	Not permitted	Permitted	Not permitted	Not generally permitted	Not permitted
Coupon deferral discretion	Fully discretionary. Restriction on combined buffer breach. No dividend stopper	Fully discretionary. Restriction on combined buffer breach. Dividend stopper permitted	Fully discretionary. Restriction on combined buffer breach. Dividend stopper permitted outside CRD IV.	Discretionary. Dividend stopper / pusher permitted	Discretionary. Dividend stopper / pusher permitted	Discretionary for a limited period	(Mostly) fully discretionary
Deferral settlement	Non-cumulative	Non-cumulative	Non-cumulative	Non-cash cumulative (scope for ACSM)	Non-cumulative	Cumulative, compounding or ASCM	Non-cumulative
Subordination	Junior sub (senior to equity)	Junior sub (senior to equity)	Junior sub (senior to equity)	Junior sub (senior to equity)	Junior sub (senior to equity)	Junior sub (senior to equity)	Preferred
Going-concern loss absorp. Trigger	CET1<5.125% or higher trigger	Only required for liability-accounted instruments	'High trigger': CET1> 7% 'Low trigger': CET>5%	N/A	N/A	N/A	N/A
Mechanism	* Writedown (temp./perm.) * Conversion to shares	* Writedown (temp./perm.) * Conversion to shares	* Writedown (permanent) * Conversion to shares	N/A	N/A	N/A	N/A
PONV under a statutory regime #	* Permanent writedown * Conversion to shares	* Permanent writedown * Conversion to shares	* Permanent writedown * Conversion to shares	Not envisaged	Not envisaged	Not envisaged	Not envisaged
Incentives to issue:	* AT1 capital * Eligible for bail-in * Rating agency equity credit * Counts to leverage ratio * Buffer for more senior debt	* AT1 capital * Eligible for bail-in * Rating agency equity credit * Counts to leverage ratio * Buffer for more senior debt	* AT1 capital * Eligible for bail-in * Pillar 2 benefit * Rating agency equity credit * Counts to leverage ratio * Buffer for more senior debt	* T1 capital * Higher rating agency equity credit * Buffer for more senior debt	* T1 capital * Some rating agency equity credit * Buffer for more senior debt	* T1 capital * Some rating agency equity credit * Buffer for more senior debt	* T1 capital * Some rating agency equity credit * Buffer for more senior debt

Source: Citi Research. # PONV expected to be covered by a statutory regime in the EU from 2015

So provided that they satisfy other the other requirements under Basel III (e.g. senior only to equity, no call for five years, no hindrance on other capital raising, no incentive to redeem, redemption subject to regulatory approval), existing non-cumulative perpetual prefs will still be eligible for Tier 1 capital treatment under the Final Rule.

For the large systemic banks these instruments currently tend to trade with a credit spread in the region of 350-450bp. Based on what we argued just before, we don't expect the spread on Final Rule-compliant AT1 instruments to be meaningfully higher unless the market as a whole reprices. Another factor, which may impact pricing of subordinated debt issued at the holdco level in future is the "Single-point-of-entry" approach, which the FDIC is currently developing (see question 20).

In Europe, the same two differences between AT1 instruments and non-cumulative T1s apply, but the market will also have to price the absence of a dividend stopper and the mandatory trigger under CRD IV.

We'll discuss the value of that mandatory trigger separately below, but the lack of a dividend stopper is in itself at least as significant. The rationale we can see for prohibiting dividend stoppers is that it might impede equity capital raising if a missed coupon prevents a bank from paying dividends. However, the absence of a dividend stopper fundamentally alters the investment proposition for bondholders.

Even in a non-stressed scenario, an issuer who has loaded up on AT1 debt and sees no further need to issue, could in theory unilaterally decide to defer coupon payments. The issuer could do so for an indefinite period without even having to suspend payments to shareholders. Bondholders would be left in a zero-coupon perpetual.

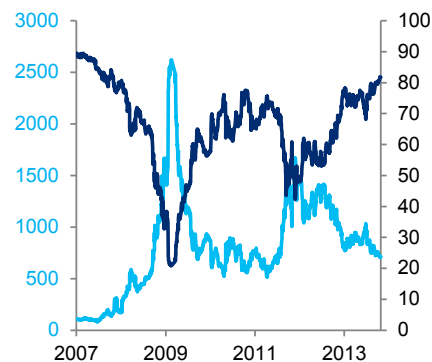
A more realistic scenario is perhaps one where an issuer suspends both coupons and dividends in a stressed situation. In both the BBVA and the Banco Popular AT1 there is a mandatory cancellation of coupons if the issuer has insufficient distributable items, breaches any capital ratio requirements or if the regulator requests it. Upon such a cancellation or indeed a voluntary one, it is feasible that an issuer chooses to reinstate only the dividend in a subsequent recovery.

To our minds, although issuers can seek to mitigate the risk to bondholders, for instance by aligning coupon dates to dividend payment dates, the implication is that investment in CRD IV-compliant AT1 bonds is ultimately based on faith in the good intentions and reputation of the issuer. And that is very hard indeed to model. In combination with the mandatory trigger, this implies that AT1 under CRD IV should unequivocally trade wider to comparable existing non-innovative T1s of the same issuer.

However, at the moment it is difficult to establish the extent to which the market is pricing these differences correctly. The BBVA \$ 9% AT1s with a first call in 2017 could be compared to BBVA's \$ 5.919% non-cum. non-step prefs from 2008, which have their first call in 2017 (and contain a dividend stopper, but no mandatory trigger). Interestingly, there is currently not much difference in pricing – both are quoted at a spread of just under 700bp (to first call) at the time of writing. However, the pricing on the \$ 5.919% may to some extent be skewed by poor liquidity.

In the euro market, we have even less to go by – especially seeing as the market for non-step preference shares never really took off. Most of the existing instruments are too close to their first call date to be a good comparison for new issue AT1 spreads. The 8.5% yield (700bp spread to call) on the Barclays non-step 2020s is the most obvious reference point for future AT1s, though the pricing is evidently impacted by a very low post-call spread of just 71bp that increases the likelihood of extension.

**Figure 21. Barclays 4.75% non-step 2020s, price and spread, bp**



Source: Citi Research, MarkIt

However, based on the pricing of the BBVA AT1 and the Barclay's non-steps, we believe that AT1 issuance of stronger banks in Europe in the current market should come at a spread of 500-700bp. By implication, AT1 instruments issued by weaker banks would likely have to come at a spread of 800-1000bp – as appears to be borne out by the recent Banco Popular deal.

### Comparing AT1 to innovative T1

Relative to traditional innovative Tier1 bonds, European AT1 differs in at least six respects – the four we have already discussed (AT1s have PONV language, have a restriction on coupons, a mandatory trigger for writedown/conversion, but do not have a dividend stopper), but also:

- *AT1s do not have a step-up*
- *AT1 coupons have no alternative coupon satisfaction mechanism (ACSM) or any other form of payment-in-kind.*

Again, we would argue that the conventional step-up of 100bp has proven itself of limited value in a stressed scenario. The spread level after a bond switches to floating coupon payments is generally more important than the presence of a step per se. However, the ACSM in some innovative Tier 1 bonds is a significant disincentive to cancel coupons in the first place.

**Figure 22. Comparing Barclays steps to non-step spreads, bp**



Source: Citi Research

We can get an idea of the implicit value of these two features by comparing the spreads on the Barclays non-innovative T1 2020s to the £ 6.3688 Dec-19s, which step up to a level almost exactly 100bp above the non-steps (Figure 22). While the spread differential has been volatile, currently the market is valuing the step at between 100-200bp.

Considering, that longer-dated innovative Tier 1 bonds of higher-rated issuers currently trade at a spread between 350-450bp, this supports that new AT1 bonds should have a spread of 500bp or more.

US investors comparing AT1s issued under US rules with TruPS and ETruPS will equally find that it is a weaker structure, with non-cumulative coupons, no step-ups, a perpetual maturity and equity accounting. However, the absence of mandatory trigger and the ability to include a dividend stopper strengthens the instrument compared to European equivalents. We expect US AT1 instruments will trade tighter than CRD-IV compliant AT1s, but as argued above, they should be priced around the non-cumulative perpetual prefs, rather than existing TruPS.

## 10. How important is the mandatory trigger under CRD IV?

The mandatory – or going-concern – trigger under CRD IV has received a lot of attention, so we have devoted a bit of space to analysing it in detail.

At face value, there is much not to like:

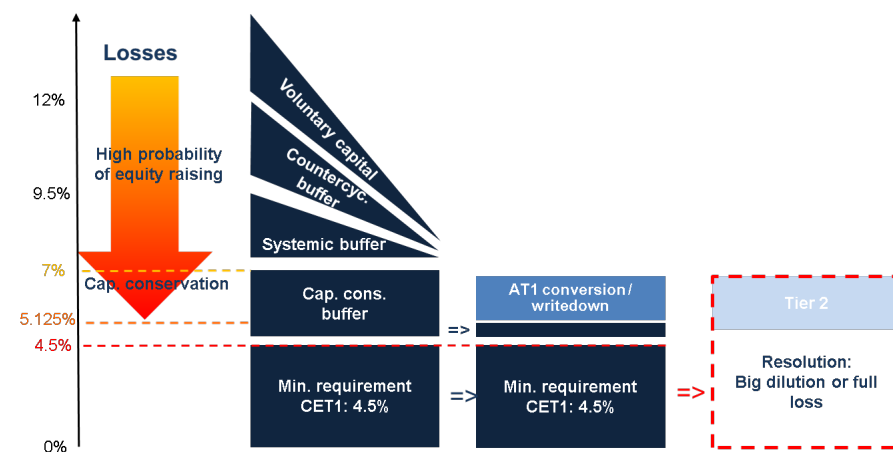
- There is a widespread perception that it doesn't respect the ranking of the capital structure. The mandatory trigger in AT1 instruments kicks in before any resolution of equity has occurred. Conversion into equity might mitigate the loss (depending on the conversion price), but if the writedown is permanent, then bondholders have effectively ended up junior to shareholders. Even if it is temporary, bondholders would face an uncertain future.

- Former UBS CEO Oswald Grübel has called the mandatory triggers "dangerous", as they may worsen a bank's problems by creating fear of dilution among shareholders, making it harder to raise capital in the equity market.

But in reality we think it is easy to overstate its importance – at least for the bonds where the trigger is set at 5.125%, which we expect will become the standard for much of the continental AT1 issuance<sup>8</sup>.

In Figure 23 below, we have tried to illustrate how losses would be absorbed through the capital structure.

Figure 23. Stylised loss absorption through CET1 and AT1, Y-axis: CET1 % of RWAs



Source: Citi Research

Initial losses at a bank are absorbed by the additional equity capital that a bank may choose to hold. If losses accumulate, then they will start eating into the countercyclical and systemic buffers (to the extent that regulators have required these). A breach of the combined buffer will trigger a progressive restriction on distributions, including coupon payments. So the first loss to bondholders is likely to be the deferral of coupons, which evidently is likely to have a big impact on mark-to-market. However notionally, losses are still taken to equity – in line with the ranking of the capital structure.

It is likely that regulators at this point would put pressure on a bank to raise equity (or reduce assets) to restore these buffers. The dilution from an AT1 conversion (if indeed, the AT1 converts rather than gets written down) might be one factor shareholders consider, but at this point we'd argue that the earnings prospects for the bank would probably be their principal concern.

A further deterioration approaching the capital conservation buffer would probably coincide with significant difficulties in raising equity and would likely mean doing so on very unfavourable terms. But we agree that at this point the prospect of conversion of AT1 debt might be a further impediment.

If capital raising fails and losses mount further then at 5.125% the mandatory trigger under CRD IV is activated and the AT1 debt is written down or converted to equity. This clearly is not in line with the ranking of capital, as equity has not been written down completely.

<sup>8</sup> The precise definitions of CET1 are likely to differ somewhat in the terms and conditions, which means that although 5.125% is likely to be the standard, individual issues might not be directly comparable.

But the key question should be "How likely is it that this conversion or writedown actually turns the bank around?"

It's pretty unlikely, in our view. A bank that hits the 5.125% CET1 trigger with 1.5% AT1 capital would still only have 6.625% T1 capital upon conversion. As the minimum requirement for T1 capital is 6%, then the bank would only be 0.625% from the point of non-viability. For a bank that has been bleeding equity from a level above 10%, the likelihood of a turnaround on that marginal 0.625% seems slim.

AT1 bonds with a writedown feature would be written down pro-rata until the breach has been cured (unless otherwise specified). So to cure a reported CET1 ratio of 4.875%, AT1 notes would have to absorb 0.3%. If the total outstanding is 1.5% of RWAs, then this implies a 20% writedown.

However, the key point is again that the writedown improves the CET1 ratio, but not the T1 ratio. In fact, the "tension" between the 6% T1 requirement and the 5.125% trigger level limits the possible writedown ahead of the PONV. So if AT1 capital amounts to 1.5%, then it can only absorb 0.625% before the T1 requirement is breached. That means only 41.7% of the AT1 can actually be written down before bail-in (unless the bank is able to raise capital incrementally).

To us, resolution seems like far more likely than a turnaround following the breach of a low trigger. In a stressed scenario, there is likely to be considerable uncertainty surrounding asset values. We would expect a cautious regulator to put a conservative mark not least on level 3 assets. As such, the regulator might well deem that the point of non-viability has been reached well before the bank gets around to actually reporting a breach of trigger (SNS is a recent example). Even if the regulator doesn't, then the market probably will, which means that bank might well face significant difficulties in accessing liquidity in the market – in turn, increasing the probability of resolution.

**'High trigger' bonds** – Obviously, for bonds that have a high trigger of, say 7% CET1, it is a different story. At 7%, the bank would still be 2.5% away from breaching minimum capital requirements. There is a much higher probability that a bank would still be able to raise equity in the market. Indeed, writing down / converting AT1 may well improve access to the equity market.

It is little wonder that regulators, like the PRA, prefer a high trigger as it provides much more meaningful going-concern loss absorption. But from an investor's perspective, a high-trigger hybrid is a significantly riskier investment than standard CRD IV AT1s. Evidently, the value of that trigger depends on how much equity the bank chooses to hold, but unless there is a significant gap to that 7% threshold or generous conversion / write-back language, then we would argue that the bonds should trade fairly close to the cost of equity for the bank.

### **What other factors influence the value of the mandatory trigger?**

There are a number of other factors to consider when assessing a mandatory trigger (many of which would probably form part of an assessment whether to invest in the bank or not in the first place):

**Business mix:** Aside from the level of profitability, the variability in and the transparency of profitability of the bank is significant. Banks with large capital markets businesses are probably more susceptible to sudden writedowns associated with trading operations. A more retail orientated bank, like BBVA, might experience non-performing loans over time, but these should be slower burning giving an investor more time to adjust. On that basis, the AT1 debt of a bank with more transparent and less volatile activities should trade tighter than a bank with the same capital ratios but higher earnings volatility.



**Regulatory uncertainty:** At a time of unprecedented regulatory change, the distance to the trigger could change overnight, if a regulator suddenly changes risk weightings on assets or changes the definitions of and deductions from equity capital. In that regard, it is important to consider whether a bank appears to be more aggressive on calculating risk weighted assets than its peers. The EBA found 'significant variation in risk weights and expected losses' among banks in a recent study<sup>9</sup>.

**Transitional deductions:** Relatedly it's important to consider the transitional deductions that banks are using in their reported capital measures. Credit Agricole put out a revised bond prospectus because the French regulator announced that it would accelerate the deduction for goodwill under Basel III, which meant that they had to take that charge up front as opposed to over a period of time. We prefer to make comparisons between banks on fully-loaded numbers.

**How much CoCo capital does the issuer have?** The more AT1 outstanding an issuer has the more probable that triggering it will help to restore the bank to an adequate capital position. Therefore, bondholders in a bank with lots of AT1 debt outstanding (relative to RWAs) are arguably more exposed to the trigger than bondholders in a bank with little AT1.

**Equity capital structure** – Any factors which restrict the ability to raise equity, should also affect the premium attached to a mandatory trigger (and for that matter PONV language). Equally, any structures that make the equity less permanent should also be factored in. For instance, part of Rabobank's capital structure (3% of RWAs) is made up of 'member certificates', which holders can redeem – this is probably one reason the bank targets a total capital ratio in excess of 20% by 2016.

## 11. Writedown or conversion?

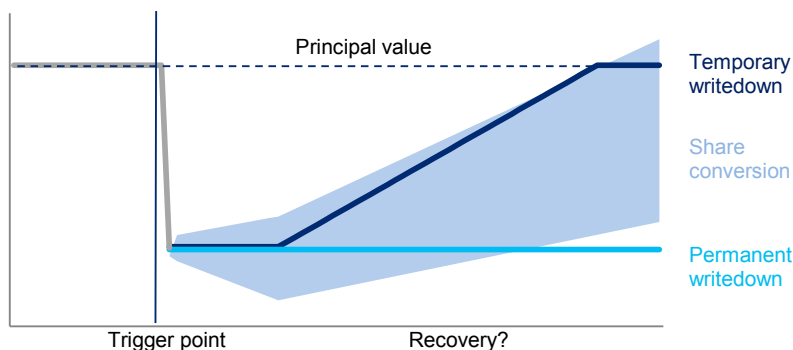
The form of going-concern loss absorption is likely to be a key consideration to many investors. Figure 24 shows the performance of three (otherwise identical) bonds with temporary writedown, permanent writedown and a conversion into shares in a hypothetical scenario, where a bank hits the mandatory trigger level, but eventually manages to recover without hitting the PONV.

■ **Permanent writedown (Barclays, Rabobank and UBS issues):** The harshest, but also the simplest form, though investors will need to distinguish between full and pro-rata writedowns. From a regulators' perspective, this is the 'cleanest' way to help restore the balance sheet. It doesn't dilute shareholders and therefore may actually improve the ability to raise capital. That's probably why the PRA wants a writedown to be permanent. However, this is also leads to the clearest violation of the ranking of the capital structure.

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<sup>9</sup> <http://www.eba.europa.eu/documents/10180/15947/EBA+Report+-+Interim+results+update+of+the+EBA+review+of+the+consistency+of+risk+weighted+assets.pdf>

Figure 24. Stylised scenario for permanent & temporary writedown & share conversion



Source: Citi Research

- **Temporary writedown (SocGen \$ AT1):** A temporary writedown, where the issuer (at its discretion) is allowed to write the principal back up in a future recovery scenario, seems 'more fair', as the potential upside is afforded to AT1 holders also. Temporary writedowns are likely to appeal to investors who cannot hold instruments that convert into equity, which should create a broader investor base. As there is no dilution of shareholders, it is unlikely to impede capital raising meaningfully in the stressed scenario. With writeback linked to future earnings any recovery of principal is likely to be a drawn-out process in most cases. And it should be stressed that the writeback is at the discretion of the issuer. Note that unlike in previous iterations in the latest draft of the RTS, the EBA is giving the issuer the discretion to resume coupon payments during a write-up period, subject to the Maximum Distributable Amount permitted for a bank that falls below the combined buffer requirement.
- **Conversion into equity (issues from Lloyds, Credit Suisse, BBVA, Banco Popular issues):** While this arguably reduces the downside for bondholders it is still likely to prove controversial with regulators, shareholders and bondholders alike. As discussed above, the dilution may impact the ability to raise capital and traditional bondholders may not relish having to value the conversion features – there is a very real prospect that the equity will have little value at the point of conversion (especially for a low trigger). On the other hand, conversion affords bondholders the possibility to participate in a future recovery – possibly extending even beyond the principal value.

The key consideration here should obviously be the conversion price – though the language used differs between issues, it tends to be unfavourable to bondholders. Usually, there is either a fixed conversion price (as in the Lloyds ECNs) or conversion will take place at the actual market price with a lower limit (both the BBVA and the Banco Popular AT1 had this language).

Both the fixed conversion rate and the lower limit effectively cap the dilution of shareholders, which means that bondholders will be left out of pocket if the actual share price is below that level at the time of conversion. We therefore think bondholders should carefully analyse where the conversion price is relative not only to the current share price, but also to a stressed scenario, say the minimum level reached in 2008/09.

## What else do I need to consider?

### 12. How will grandfathering impact the new market?

We have deliberately not detailed the transitional arrangements, as we believe investors and regulators alike will quickly switch to using the fully-loaded numbers once banks start to publish them. However as discussed in question 5, the grandfathering of existing debt is likely to influence the pace of issuance of the new Basel III compliant hybrids.

The Basel framework essentially stipulated that the capital treatment of existing hybrids issued before 12 September 2010 be phased out over a ten year period from 2013-2022. Each year 10 percentage points is taken off the capital treatment. However, US and European regulators have taken rather different approaches on this issue.

#### Grandfathering in Europe

In the EU, grandfathering under CRD IV<sup>10</sup> broadly follows the Basel approach with a few modifications, not least in terms of cut-off dates, reflecting the late implementation of CRD IV. In simplified terms:

- Existing hybrid instruments that don't meet CRD IV requirements can qualify for grandfathering between 2014 and 2021. For such qualifying instruments the regulatory capital treatment from 2014 will start at up to 80%<sup>11</sup> of the nominal amount outstanding on 31 December 2012 (provided they don't exceed the amount permissible under Basel II). That percentage will generally be amortised linearly by 10% per annum until 2021.
- Essentially, all non-innovative (non-step) Tier 1 instruments will qualify. Innovative Tier 1 instruments qualify if their first call was before the end of 2011. If the first call date is after that date, then they will qualify until that first call date<sup>12</sup>. This obviously implies that non-innovative instruments are likely to be called later than the bulk of the innovative instruments.
- Based on the EBA's final draft of its Regulatory Technical Standards, qualifying innovative Tier 1 capital that exceeds the AT1 grandfathering limits can count towards Tier 2 capital (subject to the limits on Tier 2 grandfathering). In other words, some qualifying instruments may get a mixture of AT1 and Tier 2 capital treatment for a transitional period.
- Once a Tier 1 instrument no longer qualifies for AT1 grandfathering (for instance as it passes its step-up date), then it can be counted as Tier 2 capital, if and only if, it is fully compliant with new Tier 2 requirements, which include having no call for five years beyond the step-up date.
- Our understanding is that perpetual non-step instruments issued under European law will be fully Tier 2 compliant even after they cease to have T1 grandfathering.

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<sup>10</sup> Articles 484-491 of the CRR.

<sup>11</sup> National regulators may amortise the capital treatment faster, effectively allowing them to phase old instruments out by 2017.

<sup>12</sup> Instruments with a first call in 2012 qualify until 1 January 2014.

Against the comparatively high cost of issuing AT1 instruments, which typically have a coupon of 8-12%, compared with coupons on existing Tier 1 instruments typically in the range of 5-7%, we anticipate that most issuers will initially leave the grandfathered debt outstanding. However, once the grandfathering has fallen below 50% or so (in 2017) we suspect that an increasing number of issuers will start replacing remaining qualifying T1 instruments.

Upper and Lower Tier 2 debt will be grandfathered in Tier 2 capital along the same format as for Tier 1 debt above.

### **Grandfathering in the US**

In the US, the Collins Amendment to Dodd-Frank has set a more conservative timeline on grandfathering.

Under the Final Rule, banks with more than \$15bn in consolidated assets at the end of 2009 will only receive capital treatment for existing T1 instrument that don't meet AT1 criteria until the end of 2015. The capital treatment for these non-qualifying instruments will be reduced by 25% per year from 2013. Among these are cumulative Tier 1 instruments such as TruPS.

It was not clear that TruPS would count towards Tier 2 capital after losing their Tier 1 grandfathering, as investors have acceleration rights before bankruptcy, if interest payments are deferred for the longer than a pre-specified maximum period. But regulators *have* allowed old-style cumulative T1s to count towards Tier 2 capital until they are redeemed/replaced for standard-approach banks. For advanced-approach banks the Tier 2 capital treatment of TruPS issued before May 2012 will be phased out linearly from 2016 with a 60% weight to a 10% weight in 2021.

Similarly to the grandfathering of cumulative instruments, Tier 2 instruments issued by banks with more than \$15bn in consolidated assets before May 2010, that don't meet new Tier 2 requirements will be grandfathered until 2016 with a linear phasing out from 2013.

### **13. Are there other call features that matter in the bonds?**

The Basel III framework allows the terms and conditions to contain a call before the first call date, if their regulatory capital treatment or tax status changes (CRD IV explicitly prohibits other early call features, such as rating methodology events). Early calls must be approved by a regulator and the capital must typically be replaced with other equivalent capital unless the issuer can demonstrate that it retains sufficient capital after the redemption.

Typically, the call price will be set at par (or 101 or 102), but investors will evidently prefer a make-whole clause. Calls set at or near par will make bonds more negatively convex when they trade above par – in other words, their price will appreciate less than proportionately to bonds without the call features or with a call at make-whole.

Currently, this is more an issue for the old-style hybrids, many of which are trading substantially above par. But it might also become an issue for new-style structures if spreads tighten substantially in future.

Moreover, some of the CoCos already in issue could also end up not getting the capital treatment that they were expected to have. For instance, although the Lloyds Tier 2 CoCos issued in 2009 have been modified to be CRD IV compliant, there is a clause in the documentation that allows a call (at par except for the 2015s), if the bonds don't count as part of a regulator stress test of the core Tier 1 ratio.

Considering that the trigger in the bonds is effectively set at a level that would likely only be hit after the PONV under Basel III, the PRA might end up activating that call. Whether they would allow Lloyds to exercise that call, and whether Lloyds would want to, evidently remains to be seen.

However, it illustrates the importance of checking the exact language around the other call features than mandatory trigger.

#### **14. Can hybrids be delivered into CDS contracts?**

As with existing Tier 1, AT1 instruments will not be deliverable into sub CDS. Even with the PONV language, new style Tier 2 instruments should generally be deliverable into existing CDS contracts. However, Tier 2 CoCos are not deliverable, as the mandatory conversion makes them a contingent instrument.

However, following the experience with SNS, where after the expropriation by the Dutch government there was no subordinated debt deliverable into subordinated CDS (and the senior debt that was deliverable was still trading close to par), the market has rightly questioned the value of existing sub CDS contracts in a world of bail-inable debt.

ISDA is currently working on revising sub CDS contracts globally<sup>13</sup>. They are expected to finalise a new framework shortly that will probably take effect with the March 2014 roll. ISDA have already proposed that this new contract will feature an additional credit event to capture 'bail in' by a Government Authority and that protection buyers will be able to deliver the 'written down instruments', based on the principal amount before the writedown or any conversion/exchange proceeds. In the event of an expropriation or other intervention that leaves no instrument to deliver, the CDS will cash settle with a 0% recovery rate, ensuring that the protection buyer is paid the full value of the CDS notional.

According to the proposal, the writedown/conversion of a CoCo will not constitute a credit event. However, if a 'bail-in' even occurs before a mandatory trigger is breached, then Tier 2 CoCos will also be deliverable.

We believe it is exceedingly unlikely that these changes can be applied retroactively to existing contracts at the aggregate level.

#### **15. How are the rating agencies treating the new hybrids?**

The rating agencies have only recently started to address the new features found in Basel III-compliant hybrids. Too few instruments have been rated to formulate a full overview of how they will regard all the possible features that may evolve. Yet rating agencies' own published guidelines along with the limited number of issues they have rated to date give us a good idea of the policies they will adopt.

Perhaps not surprisingly, the guidelines still tend to leave rating agencies with a considerable degree of flexibility. Besides the features of the instrument itself, the final rating decision may take into account factors ranging from judgments on the issuer's capital position to regulatory track records for intervention. Below we provide a summary of current notching policies.

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<sup>13</sup> See '[Financial CDS to get a re-vamp](#)', A. Elizalde, 21 May 2013.

Figure 25. Rating Agency Notching Policies

Rating Agency	Methodology	Starting Point	Notches**	Notching Rationale
Standard & Poor's	Bank Hybrid Capital Methodology and Assumptions, 1 Nov 2011	Stand-alone credit profile (SACP*)	4-5	Additional Tier 1 SACP 'bbb-' or higher: - Minimum 2 notches for bank hybrid - 1 notch for non-viability (S&P view 5.125% trigger as non-viability and not a "going concern" trigger) - 1 notch for breach of equity buffers preventing coupon payments SACP 'bb+' or lower: - Minimum 3 notches for bank hybrid instead - 1 notch for non-viability (S&P view 5.125% trigger as non-viability and not a "going concern" trigger) - 1 notch for breach of equity buffers preventing coupon payments
			1	Basel III Tier II - 1 notch for non-viability (S&P deem the principal loss absorption trigger as gone concern)
			2	Low Trigger CoCos (trigger between 5.125% and 7%) - 1 notch for subordination - 1 notch for non-viability (S&P deem the principal loss absorption trigger as gone concern)
			3 or more	High Trigger CoCos (trigger >= 7%) - S&P will determine rating as a function of a bank's SACP and distance to trigger based on S&P projected regulatory ratios as outlined in table 3a of S&P's methodology
Moody's	"Guidelines for Rating Junior Bank Obligations" in Rating Methodology: Global Banks, 31	Adjusted Baseline Credit Assessment (BCA)	4	Additional Tier 1 - 4 notches
			1-3	Basel III Tier II - 2-3 notches (2 notches in base scenario) High Trigger Contingent Capital - Not rated
Fitch Ratings	Assessing and Rating Bank Subordinated and Hybrid Securities, 5 December 2012	Viability Rating (VR)	5	Additional Tier 1 VR 'bbb-' or higher: - 2 notches for "poor" loss severity - 3 notches for non-performance due to going concern loss absorption (i.e. coupon deferral or contingent conversion / write-down) VR 'bb+' or lower: Baseline matrix included in rating methodology (Figure 2, page 7) applied to determine ratings
			1-2	Basel III Tier II - 1-2 notches for loss severity (1 notch in base scenario)
			1-4	Contingent Capital - 1-2 notches for loss severity (2 notches in base scenario) - 0-2 notches for non-performance (1 notch in base scenario)

Source: Citi Research, rating agencies. \* In cases where the SACP is higher than the ICR (due to impact of the bank's Sovereign Rating), S&P would use the Issuer Credit Rating as its starting point. \*\* S&P may notch wider to reflect the risk of partial or untimely payment

## Senior unsecured is often the wrong place to start

Before notching, rating agencies must decide which rating they use as their starting point. Ratings on senior unsecured debt often take implicit or even explicit external (e.g. sovereign) support into account. In contrast, rating agencies typically "notch" subordinated debt based on the what S&P calls the bank's standalone credit profile (SACP), assuming no external support in a stressed scenario.

So Moody's<sup>14</sup> rating of senior bank debt starts from the "Joint Default Analysis" (JDA) which takes into account implicit external (typically sovereign) support, whilst their starting point for hybrid securities is typically a bank's "Baseline Credit Assessment" (BCA), which considers a bank's strength on a standalone basis. Similarly, Fitch uses a "Viability Rating" (another form of SACP) of the bank it was issued by, to take into account the prospects for external support in a resolution scenario<sup>15</sup>. Usually, the "Issuer Default/Senior rating" will be higher.

In principle, Moody's and S&P<sup>16</sup> are still prepared evaluate sovereign support for all subordinated debt on a country by country basis, where appropriate. Fitch would only consider doing this for Tier 2 instruments.

<sup>14</sup> [https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBC\\_154255](https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBC_154255)

<sup>15</sup> [http://www.fitchratings.co.jp/ja/images/RC\\_20121205\\_Assessing%20and%20Rtg%20Bk%20Subordinated%20and%20Hybrid%20Sec\\_EN.pdf](http://www.fitchratings.co.jp/ja/images/RC_20121205_Assessing%20and%20Rtg%20Bk%20Subordinated%20and%20Hybrid%20Sec_EN.pdf)

<sup>16</sup> <http://www.standardandpoors.com/ratings/articles/en/us/?articleType=HTML&assetID=1245323279318>

When hybrid instruments are issued by a subsidiary bank, all three rating agencies will assess the impact of potential support from the parent bank when considering which 'starter' rating to use.

### AT1 notching

Moody's and S&P will typically notch AT1 bonds in Europe by four notches from an investment-grade SACP. They subtract two notches for subordination, an extra notch for a mandatory trigger and finally a notch for coupon deferral.

Fitch's framework has two basic risk categories that warrant notching from the VR. "Loss Severity", only takes into account losses sustained in a resolution/liquidation scenario and not any losses that occur beforehand (such as coupon deferral). Two notches are deducted for AT1 ratings (when the VR is 'bbb-' or higher) on the assumption that losses on subordinated instruments will be higher than for senior in resolution. "Non-performance risk", worth three notches on AT1, accounts for any losses sustained before resolution.

For both S&P and Fitch, issuers with a non-investment grade SACP are subject to different notching guidelines, as detailed in their respective criteria reports.

Note that Moody's currently does not rate instruments that it regards as possessing "going-concern" loss absorption features, reflecting concerns that a bank's capital position relative to the trigger is too uncertain, especially in a stressed situation. However, Moody's will rate AT1 instruments with a low trigger (the standard 5.125% under CRD IV) on the basis that in reality it is close enough to the PONV that the risk of a trigger can be sufficiently accounted for under its current methodology.

To date we haven't had any *rated* euro denominated AT1 deals, but the ratings of the AT1 instruments issued this year in dollars by BBVA and SocGen came out in line with what we would have expected based on the notching guidelines that rating agencies have set out. Moody's has noted that "contingent capital market and the associated regulatory framework are still in the early stages of their development" and we may see adjustment to notching guidelines as the market develops.

### CoCo notching

The notching process for CoCos is a little more complicated, as it depends not only on the level of the trigger, but also on the host structure. Moody's will currently not rate high-trigger CoCos, but S&P and Fitch treat the high-triggers (7%+) as a form of going-concern capital with notching that approaches AT1 (even though the host is a Tier 2 instrument).

However, approaches differ more on the low-trigger Tier 2 CoCos. Fitch have described these as a 'grey area', citing the concern that some triggers will be so low as to make these instruments nearly identical to their non-contingent "gone concern" counterparts, at least for rating purposes. Fitch therefore notches by 0-2 notches for "non-performance"<sup>17</sup> and in their "base case" scenario, they will assign a further two notches to CoCos for "loss severity".

While Fitch's approach retains some flexibility, S&P has been more explicit in the notching policy for Tier 2 CoCos. S&P rate all hybrid capital securities with a low trigger at least 2 notches below the issuer's standalone credit profile. High trigger instruments (7%+) are generally notched by 3. But depending on the bank's SACP and the distance to the trigger S&P may notch more.

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<sup>17</sup> Depending on the level of trigger, the projected capital cushion and earnings volatility.



## Tier 2 notching

Vanilla Tier 2 instruments without coupon deferral are not surprisingly notched less severely. S&P will notch Tier 2 debt without a numerical trigger, such as the recently issued CaixaBank Tier II deal, by 1 below the issuer's SACP – in line with existing methodology for old-style Tier II securities. Fitch will also generally notch Tier 2s one below the SACP for "loss severity". There is no incremental notching for non-performance, as the standalone (Viability) rating already takes "gone concern" non-performance scenarios into account. However, they afford themselves the flexibility to notch by two in some circumstances.

Moody's, however, take a harder line towards securities with explicit PONV language on the view that loss absorption may in some instances occur before PONV is reached (for instance, when regulators want to prevent a "broad market disruption event"). Such securities are likely to be two or three notches below the SACP. However, when the only reference in the documentation is to the *risk* of bail-in, then Moody's may view them as equivalent to "plain vanilla" (i.e. old-style) Tier II debt for notching purposes, and notch by only one. Judging by the issuance we have seen to date the mere reference to the risk of bail in is becoming the de facto standard. As such even with Moody's, much of the new Tier 2 debt is likely to end up only 1-2 notches below the SACP.

## Example

In Figure 28, we illustrate the likely ratings of Basel III compliant securities issued by HSBC and CaixaBank. Whilst Fitch would give HSBC's AT1 debt an IG rating, this is not the case for S&P or Moody's. For Moody's, their 'adjusted baseline credit assessment' gives HSBC a standalone rating of only A3, and, once we deduct four notches from this, we are in HY territory.

HSBC should be able to issue contingent capital with an IG rating from both S&P and Fitch (with Moody's not rating "going concern" securities, as discussed above). For CaixaBank, even Tier 2 issuance is likely to be HY with two of the three agencies.

Figure 26. Notching Illustration

		HSBC		CaixaBank	
S&P	Stand-alone Credit Profile	A-		BBB-	
	AT1	BB+	4 notches	B+	4 notches
	Basel III Tier II	BBB+	1 notch	BB+	1 notch
	Low Trigger Contingent Capital**	BBB	2 notches	BB	2 notches
	High Trigger Contingent Capital***	BBB- or lower	3+ notches	BB- or lower	3+ notches
Fitch	Viability Rating	AA-		BBB	
	AT1	BBB	5 notches	B+	5 notches
	Basel III Tier II	A+*	1 notch	BBB-*	1 notch
	Tier II Contingent Capital	A-	3 notches	BB	3 notches
Moody's	Adjusted Baseline Credit Assessment	A3		Ba1	
	AT1	Ba1	4 notches	B2	4 notches
	Basel III Tier II	Baa2*	2 notches	Ba3*	2 notches

Source: Citi Research, rating agencies. \* Base scenario, \*\* Trigger between 5.125% and 7%, \*\*\* Trigger > 7%

## 16. My head hurts! Can all this not be simplified a bit?

Everyone loves a cheat sheet – if you've made it this far then you deserve one. So we'll leave you with a table that summarises the main features of some of the AT1 hybrids and other CoCos that we have seen issued in recent years - with the caveat that the particular definitions around triggers, conversion etc. do vary from issue to issue and therefore really should be taken into consideration on an individual basis.

Figure 27. European bank capital cheat sheet – Key features of recent hybrid issues

Issuer	ISIN	Issue Date	Tier	Maturity	Ccy	Cpn	Reset	Amount (mn)	Coupon language	Basis of Trigger	Loss Absorption Mechanism	Trigger	Reg Call / Cap. event
<b>Alternative Tier 1</b>													
Banco Popular	XS0979444402	01-Oct-13	AT1	Perp-18	€	11.5%	5yr € m/s+1023.7	500	Fully opt.	B3 (Transitional) CET1 / RWAs	Full conversion to equity	B3 CET1 <5.125%, T1 <6% AND Bank/Group losses 4MRQs AND Capital+Reserves down by 1/3rd	Par
Societe Generale	XS0867614595	29-Aug-13	AT1	Perp-18	\$	8.25%	5y \$ m/s+639.4	1250	Fully opt.	B3 (Transitional) CET1 / RWAs	Temporary principal write-down	B3 CET1 <5.125%	Current princ. amt.
BBVA	XS0926832907	26-Apr-13	AT1	Perp-18	\$	9%	5y \$ m/s+826.2	1500	Fully opt.	CET1 / Capital Principal / EBA CT1 / T1 Ratio	Full conversion to equity	1) CET1 < 5.125% 2) EBA CT1 < 7.0% 3) Cap. Principal < 7.0% 4) T1 < 6.0%	Par
Credit Suisse	XS0810846617	31-Jul-12	AT1 (BCN)	Perp-18	\$	9.5%	6m \$ m/s+665	1725	Fully opt.	B3 (Transitional) CET1 / RWAs	Full conversion to equity	1) B3 CET1 <7.0% or 2) non-viability declaration by FINMA	Par
Rabobank	XS0703303262	09-Nov-11	AT1	Perp-17	\$	8.4%	5yr UST+749	2000	Fully opt.	Equity Capital Ratio (Equity / RWAs)	Pro-rata permanent write-down	Equity Capital Ratio <8.0%	Par
Rabobank	XS0583302996	19-Jan-11	AT1	Perp-16	\$	8.375%	5yr UST+642.5	2000	Fully opt.	Equity Capital Ratio (Equity / RWAs)	Pro-rata permanent write-down	Equity Capital Ratio <8.0%	Par
<b>Tier 2 / Senior</b>													
Credit Agricole	US225313AC92	12-Sep-13	T2	33-18	\$	8.125%	5y \$ m/s+628.3	1000	Must pay	B3 (Transitional) CET1 / RWAs	Full permanent writedown	B3 CET1 < 7%	Par
Credit Suisse	XS0957135212	08-Aug-13	T2 (Low Trigger)	Aug-23	\$	6.5%	-	2500	Must pay	B3 (Transitional) CET1 / RWAs	Full permanent writedown	1) B3 CET1 <5.0% or 2) non-viability declaration by FINMA	Par / 103 on capital event
UBS	CH0214139930	22-May-13	T2	23-18	\$	4.75%	5y \$ m/s+376.5	1500	Must pay	B3 (Transitional) CET1 / RWAs	Full permanent writedown	1) B3 CET1 <5.0% or 2) non-viability declaration by FINMA	Par / 101 on capital event
Barclays	US06739FHK03	04-Apr-13	T2	23-18	\$	7.75%	5y \$ m/s+683.3	1000	Must pay	B3 (Transitional) CET1 / RWAs	Full permanent writedown	B3 CET1 <7.0%	Par
KBC	BE6248510610	17-Jan-13	T2	23-18	\$	8%	5y \$ m/s+709.7	1000	Must pay	B3 (Transitional) CET1 / RWAs	Full permanent writedown	B3 CET1 <7.0%	Par
Barclays	US06740L8C27	21-Nov-12	T2	Nov-22	\$	7.625%	-	3000	Must pay	B3 (Transitional) CET1 / RWAs	Full permanent writedown	B3 CET1 <7.0%	Par
UBS	US90261AAB89	10-Aug-12	T2	Aug-22	\$	7.625%	-	2000	Must pay	B3 (Transitional) CET1 / RWAs	Full permanent writedown	1) B3 CET1 <5.0% or 2) non-viability declaration by FINMA	Par / 101 on capital event
Credit Suisse	CH0181115681	03-Mar-12	T2 (BCN)	22-17	CHF	7.125%	5y \$ m/s+668.5	750	Must pay	B3 (Transitional) CET1 / RWAs	Full conversion to equity	1) B3 CET1 <7.0% or 2) non-viability declaration by FINMA	102
UBS	XS0747231362	22-Feb-12	T2	22-17	\$	7.25%	5y \$ m/s+606.1	2000	Must pay	B3 (Transitional) CET1 / RWAs	Full permanent writedown	1) B3 CET1 <5.0% or 2) non-viability declaration by FINMA	Par / 101 on capital event
Bank of Ireland	XS0867469305	29-Jul-11	T2	Jul-16	€	10%	-	1000	Must pay	B3 (Transitional) CET1 / RWAs	Full conversion to equity	B3 CET1 <8.25%	-
Credit Suisse	XS0595225318	24-Feb-11	T2 (BCN)	41-16	\$	7.875%	5y \$ m/s+522	2000	Must pay	B3 (Transitional) CET1 / RWAs	Full conversion (variable)	1) B3 CET1 <7.0% or 2) non-viability declaration by FINMA	102
Yorkshire Build. Soc.	XS0498549194	01-Apr-10	T2	Apr-25	£	13.5%	-	100	Must pay	B2 CT1 (static) / RWAs	Conversion to PPDS	B2 CET1 <5.0%	Par
Rabobank	XS0496281618	12-Mar-10	Senior	Mar-20	€	6.875%	-	1250	Must pay	Equity Capital Ratio (Equity / RWAs)	Permanent principal writedown to 25%	Equity Capital Ratio <7.0%	-
Lloyds	Various	01-Dec-09	LT2 / UT2	10Y Perp	\$/£/€	Var.	Var.	Var.	Must pay	B2 CT1 (static) / RWAs	Full equity conversion (fixed)	B2 CET1 <5.0%	Var.

Source: Citi Research

## Appendix: Explain the regulatory framework underpinning bank hybrids

### 17. Basel III in brief

More so than its predecessors, the Basel III accord which has been agreed upon by the Basel Committee for Banking Supervision (BCBS), will be at the centre of the global banking regulations. It is now being phased in around the world and will be fully implemented by 2019, also in jurisdictions that never fully embraced Basel II or Basel 2.5, like the US.

At the heart of Basel III is an implicit assumption that no one single measure can create a stable global financial system – benchmarking to one metric encourages banks to optimise around it, concentrating and exacerbating risks in other areas. As such, Basel III uses a combination of capital, liquidity and funding ratios to create a system of checks and balances, which are intended to ensure that banks keep to the middle ground. We will focus on the capital rules themselves here, but liquidity and funding rules may to some extent influence hybrid issuance indirectly.

Basel III operates with two broad types of capital:

- Tier 1 capital, also referred to as "going-concern capital", must be fully loss absorbing even while a bank remains viable. It comprises the conventional forms of capital, principally common equity, and "Additional Tier 1", which consists of qualifying hybrid debt instruments and certain minority interests that do not count towards equity.
- Tier 2 is "gone-concern" capital. It must only absorb losses at the point where a bank becomes non-viable. In simple terms, that Point of Non-Viability (PONV) occurs when a regulator determines that a bank would cease to be a solvent, functioning institution without the writedown / conversion or a public capital injection. Tier 2 capital consists largely of qualifying subordinated bank debt.

Figure 28. Key features of Additional Tier 1 (AT1) under Basel III

- Issued and paid in
  - Unsecured, unguaranteed and subordinated to depositors, general creditors and subordinated debt of the bank
  - Perpetual without steps-ups or other incentives to redeem and callable only after  $\geq 5$  years with supervisory approval.
  - If classified as a liability it must feature principal loss absorption through either
    - conversion to equity at a pre-specified trigger point; or
    - principal writedown mechanism
- Basel III does not state that the writedown needs to be permanent.
- Give full discretion to cancel distributions without causing an event of default. Deferred coupons must be non-cumulative, i.e. deferred coupon payments will not be paid out at a future date.
- "Dividend stoppers", restricting the issuer from paying dividends on common equity, are permitted. "Dividend pushers", obliging the issuer to pay a coupon if a dividend has been paid, are not.
- Must not hinder recapitalisation
- T&C must contain a clause allowing write-off or conversion into equity by the regulator at the PONV (contractual PONV), unless this is already a law in the jurisdiction (statutory PONV)

Source: Citi Research

Figure 29. Key features of Tier 2 capital under Basel III

- Issued and paid in
  - Unsecured, unguaranteed and subordinated to depositors, general creditors of the bank
  - Minimum maturity of 5 years with amortising capital treatment over the last five years with no step-ups or incentives to redeem
  - May be callable after a minimum of five years with supervisory approval with no incentive to call
  - T&C must contain a clause allowing write-off or conversion into equity by the regulator at the PONV (contractual PONV), unless this is already a law in the jurisdiction (statutory PONV)

Source: Citi Research

The specific capital rules that banks must satisfy have become more complicated than in previous iterations of Basel, as summarised in Figure 30 below.

**Figure 30. Basel III capital requirements (after transitional periods):**

Three minimum capital ratios apply from January 2015 – all three must be met for a bank to be deemed viable:

- A minimum amount of common equity of >4.5% % of risk-weighted assets (RWAs)
- Tier 1 capital of >6% of RWAs, where T1 capital consists of common equity Tier 1 (CET1) and additional Tier 1 (AT1) capital (hybrid debt)
- Total capital of >8% of RWAs. Total capital consists of Tier 1 capital and Tier 2 capital.

These are then bolstered by several "buffers"

- A 2.5% "capital conservation buffer". Banks that meet the 4.5% CET1 minimum requirement but fail to meet the combined amount of 7% will be subject to restrictions on distributions, depending on the size of the shortfall. The capital conservation buffer is due to be phased in from 2016-19.
- National regulators may require a 'discretionary counter-cyclical buffer' of 0-2.5% of RWAs, consisting of equity and "other fully loss absorbing capital" during periods of high credit growth associated with a build-up of system-wide risk. Conversely, regulators can lower this buffer in times of stress.
- Finally, the Basel Committee on Banking Supervision (BCBS) is still reviewing requirements for additional 'loss absorbing capacity' of CET1 capital for systemically important banks (SIBs), which are expected to range between 0-2.5% CET1 of RWAs.

Separately, banks will have to maintain a "supplemental leverage ratio":

- Tier 1 capital of >3% of an 'exposure measure' comprising consolidated assets and various off-balance sheet exposures<sup>18</sup>. Note that AT1 capital counts towards the leverage ratio.

Source: Citi Research

However, it is this setup which gives banks an incentive to issue hybrid securities. The Basel text specifies that CET1 will first be used to satisfy the minimum capital requirements before any remaining amount can count towards any of the buffers.

Generally, we would expect banks to issue as much as the rules will give them capital credit for. The bulk of **AT1** issuance is likely to fill the 1.5% difference between the regulatory minimum amount of common equity and the Tier 1 capital. However as discussed below, leverage ratio requirements may also contribute to AT1 issuance. **Tier 2** issuance will be used to cover the difference between Tier 1 and the Total Capital requirements.

## 18. How is Europe implementing Basel III?

### CRD IV/CRR

Basel III is not law; it forms the basis for legislation that must be adopted by individual countries. In the EU, that's happening through the fourth iteration of the Capital Requirements Directive (CRD IV)<sup>19</sup>. It was agreed in June this year and when it comes into force on 1 January 2014 it will apply to all credit institutions (including banks, building societies and investment firms).

<sup>18</sup> The Basel Committee on Banking Supervision (BCBS) has recently proposed a tightening in the definitions of consolidated assets for the purposes of calculating the leverage ratio. See ['The Legacy of the Bank Leverage Ratio \(for Credit\)'](#) J. Shoup, 18 September.

<sup>19</sup> [http://ec.europa.eu/internal\\_market/bank/regcapital/legislation\\_in\\_force\\_en.htm](http://ec.europa.eu/internal_market/bank/regcapital/legislation_in_force_en.htm)

A directive itself is not directly applicable in the member states; it must be ratified and transposed into national legislation. But unlike previous iterations, the meat in CRD IV (including the main articles on hybrid debt) lies not in the directive but in the associated Capital Requirements Regulation (CRR). Regulations in the EU are directly applicable and require no implementation in member states. As such, well over 100 competencies which had previously been legislated for at the national level are being harmonised. That should to some extent reduce the discrepancies that resulted from the transposition of previous iterations of Basel.

So what does CRD IV stipulate?

Basically, all the minimum capital ratios are the same as in Basel III (see Figure 30 above)<sup>20</sup>. It also includes the counter-cyclical and the capital conservation buffers and a buffer for systemically important institutions. Under the principle of 'maximum harmonisation', CRD IV is supposed to be implemented without 'gold-plating' (setting of even higher standards) by individual member-states.

But national regulators will still have considerable discretion. For instance, CRD IV permits an extra Systemic Risk Buffer to 'mitigate long-term non-cyclical systemic or macro-prudential risks' in a member state. Member states can set this up to 5% CET1 of RWAs – or higher with approval from the European Commission. Moreover, under the so-called "Pillar 2" national regulators still have risk/supervisory powers that allow them to require higher capital ratios from banks that they deem are subject to particular risks. The leverage ratio has been left under Pillar 2 in CRD IV.

CRD IV definitions of what counts as equity capital differ from the Basel accord and are generally considered as being more lenient than Basel III. In contrast, on the provisions that relate specifically to hybrid capital, CRD IV is more conservative than the Basel framework:

- CRD IV sets a specific minimum trigger level for principal loss absorption on AT1 instruments, when CET1 falls below 5.125% of RWAs.
- CRD IV explicitly states that the counter-cyclical buffer must be made up of common equity – as such 'other fully loss absorbing capital', be it AT1 or other CoCos, will not count towards the buffer, as envisaged on Basel III.
- CRD IV explicitly prohibits dividend stoppers on the basis that they could inhibit recapitalisation. Basel III doesn't.

As with Basel III, CRD IV is silent on whether writedowns have to be permanent or not. However, the EBA has been mandated to flesh out much of the detailed guidance not directly addressed in CRD IV/CRR, through "Regulatory Technical Standards" and by managing the so-called Single Rulebook Q&A process<sup>21</sup>. The latest draft of these guidelines allows an issuer at his/her full discretion to write-back coupons and principal on a pro rate basis once the institution has returned to profitability<sup>22</sup>.

<sup>20</sup> Though the mandatory buffer for globally systemically important banks (G-SIBs) will be 1-3.5% CET1 of RWAs (as opposed to 1-2.5% under Basel III), split between five sub-categories. Other systemically important institutions will also have to maintain an additional buffer of up to 2%.

<sup>21</sup> <http://www.eba.europa.eu/single-rule-book-qa#search>

<sup>22</sup> <http://www.eba.europa.eu/documents/10180/16058/EBA-RTS-2013-01%28Near-final+Draft+RTS+on+OF+Part+1%29.pdf>

### Bail-in directive in the final stages

CRD IV does not deal directly with the point of non-viability. Rather that is being implemented through the Recovery & Resolution Directive (RRD), which is still being finalised. Obviously, as a Directive that needs to be transposed into national legislation it remains to be seen how much divergence there will be between Member States.

This directive will specify various measures to restore the capital position of ailing banks, including statutory bail-in provisions through writedowns or conversion into equity at the PONV. While the wording on PONV is very general in the Basel III document, the RRD sets out that for a statutory bail-in to occur the regulator has to determine that 1) the institution is failing or likely to fail<sup>23</sup>, 2) there is no prospect of an alternative action that could prevent failure within a reasonable timeframe, and 3) intervention is in the public interest.

When a bail-in occurs it should 1) respect the hierarchy of the capital structure, 2) leave no creditor worse off than in a conventional liquidation, and 3) preserve greater value than with a disorderly failure.

The current RRD proposal will also make depositor preference much more explicit, as regulators are given the power to bail in not just bank capital instruments, but also most senior unsecured creditors (short-term debt is excluded), so as to protect retail depositors and taxpayers. This puts senior unsecured in a much thinner and more junior slice of the liability structure. As such, the need to keep senior unsecured funding costs down is likely to be one driver of future bank capital issuance, as we will discuss later on.

An important question mark that will likely be left open by the RRD is the conversion rate between debt and equity at the PONV, which again leaves scope for differences between member states.

The RRD is due to be implemented at the national level by the end of 2014 with the application of bail-in provisions intended to apply only from January 2018. The ECON committee in the European Parliament has suggested bringing the latter date forward to 2016. There is a widespread expectation that application may be brought forward all the way to 2015. However, the asset separation and bridge bank tools that will make it easier to split out subordinated debt come into force from 2015.

Ahead of the RRD, the European Commission updated its rules on state aid to banks on 1 August this year. Under these new rules, states will generally<sup>24</sup> only be allowed to recapitalise a failing bank after a restructuring plan involving bail-in of shareholders and subordinated (but not senior) bondholders has been approved by the Commission. From the time the capital need is known or should be known a bank should take measures to retain funds to the extent that is legally possible – preventing payments of coupons that are deferrable and any redemptions of hybrid instruments<sup>25</sup>.

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<sup>23</sup> Which in turn is defined as being in breach of the minimum capital ratios, that liabilities exceed assets, that the bank has insufficient liquidity to pay obligations as they fall due or that extraordinary public financial support is required.

<sup>24</sup> In exceptional circumstances, the Commission may approve state aid without a restructuring plan, which must then be submitted within two months.

<sup>25</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2013:216:0001:0015:EN:PDF>

## 19. Will implementation differ across Europe?

Despite the Commission's attempt at maximum harmonisation in the implementation of Basel III, there will be important differences between national jurisdictions that investors will have to factor in.

We would expect regulators in France, Germany and in Southern Europe to stick fairly closely to the CRD IV framework, but other regulators have already indicated that they intend to use the flexibility afforded them in CRD IV to adopt higher standards still.

In the UK, in particular, there is a clear preference for more conservative regulation.

The Prudential Regulation Authority (PRA) have put out a consultation document on CRD IV<sup>26</sup>, where they envisage using the Pillar 2 powers to impose an additional CET1 buffer on a discretionary basis, reflecting firm-specific stress test results. They also propose that new AT1 instruments have a higher trigger than the 5.125% that is the specified level under CRD IV for going-concern loss absorption (according to Barclays, the PRA have confirmed that a 7% trigger would qualify). Moreover, they want writedowns of principal to be permanent, with no scope for a writeback should a stressed bank recover in future.

The PRA used a leverage ratio based on a stressed version CET1 capital in its capital shortfall exercise – providing a strong indication that it wouldn't look favourably on a bank relying heavily on standard AT1 instruments to meet the 3% target (Barclays has been permitted to include an AT1 bond issued with a 7% trigger).

Finally, the Banking Reform Bill implementing the recommendations of the Independent Committee on Banking, chaired by Sir John Vickers, is likely to include an explicit requirement that global UK banks keep a minimum equity level of 10% and a total capital ratio<sup>27</sup> of at least 17% of RWAs along with a modified bail-in regime when it is enacted early next year.

The PRA may get some pushback against its proposals – in particular the restriction on writebacks. Yet it would not surprise us if some of the more conservative regulators, for instance in Scandinavia, will also demand a high trigger and/or higher capital levels. The Danish Central Bank Governor, Lars Rohde, has recently suggested that systemically important banks might need to hold more CET1 capital than the 12% after buffers implied by the Basel III. Similarly, it appears that the large Swedish banks will need to meet a counter-cyclical buffer at the higher end of the 0-2.5% range on top of the 12% CET1 required by the regulator from 2015.

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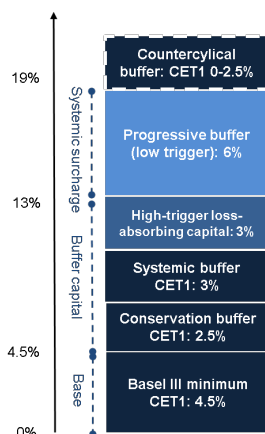
<sup>26</sup>

<http://www.bankofengland.co.uk/pradocuments/publications/policy/2013/implementingcrdivcp513.pdf>

<sup>27</sup> In this context called 'primary loss absorbing capital'.



Figure 31. "Swiss Finish" (Fully loaded, 2019)



Source: UBS, Q2 report

Outside the EU, the Swiss national regulator has also taken a more conservative stance than Basel III (Figure 31), requiring Systemically Important Financial Institutions (SIFIs) to hold 10% of RWAs in CET1. In addition, they will have to hold as much as 9% of RWAs in other loss-absorbing capital, like contingent convertibles. 3% must have a 'high' trigger of 7% of more. The remaining 6% may have a 'low' trigger of 5 1/8%.

So although the central parts of the Basel III framework provide a common platform, considerable differences in national requirements will once again complicate cross-border comparisons.

This in turn, means that a uniform hybrid market is very unlikely, especially for AT1 instruments. Investors will still have to review the features of each and every bond, and price them in conjunction with the credit quality of the bank.

Another important aspect is tax treatment. Some tax authorities have not yet explicitly confirmed that AT1 structures can be treated as debt and therefore have the interest deducted before tax. Our expectation is that the structure will be tax deductible in most jurisdictions – countries like the UK, France, Spain and Italy have already confirmed it. Germany is one country where uncertainty remains, not least regarding whether discretion over coupon payments is compatible with the definition of 'interest'. In the Netherlands, we are also awaiting clarification.

## 20. How will Basel III be implemented in the US?

In the US, the Final Rule implementing Basel III (and certain parts of Dodd-Frank) was approved by the Federal Reserve and other bank regulators in July.

The rules will apply to all US insured depository institutions, savings & loan holding companies and bank holding companies with assets in excess of \$500m. Within that framework, holding companies of foreign banks with systemic importance (global consolidated assets >\$50bn) will also be captured for the first time.

Banks with consolidated assets under \$250bn will calculate their RWAs based on a standardised approach, while large banks will also have to calculate them under an Advanced Approach. Under the so-called "Collins Amendment" to Dodd-Frank (Section 171), Advanced Approach banks will have to apply the less favourable of the two. Implementation will take place through transitional arrangements between 2014 and 2019.

The US rules are generally a 'purer' implementation of the Basel III accord than CRD IV. For one, the definition of the capital base is more conservative.

The minimum capital ratios and the leverage ratio are implemented as per the Basel III prescriptions above (though systemic banks will still have to comply with the existing Tier 1 capital to consolidated assets ratio of 4%).

All banks will need to fill the 2.5% capital conservation buffer, while the Advanced Approach banks will need to fill both the capital conservation buffer and the countercyclical buffer (which has been limited to CET1 capital, as under CRD IV). If they don't then they will be subjected to restrictions on their pay-outs.

The Fed has already indicated that further rules are on the way for the systemically important financial institutions:

- A surcharge for the Globally Systemically Important Banks (G-SIBs) is not part of the US Final Rule. But a G-SIB buffer will be implemented when detailed BCBS guidelines are published. The Federal Reserve has also signaled that it may introduce a capital surcharge for domestic SIBs.
- Second, only days after the Final Rule was agreed upon, the Fed, the FDIC and the OCC issued a notice of proposed rulemaking regarding the supplementary leverage ratio (SLR). In a departure from Basel III, a buffer akin to the capital conservation buffer should be built into the SLR for SIFIs<sup>28</sup>. From 2018 such banks would be required to hold an additional 2% of Tier 1 capital relative to a measure combining consolidated assets with off-balance sheet exposures to be regarded as 'well-capitalised' and avoid restrictions on payouts<sup>29 30</sup>.
- The US has a well established bail-in regime that grants the FDIC special Federal powers to resolve failing banks outside the courts. These include the ability to impose losses on unsecured creditors and large depositors. The Orderly Liquidation Authority (OLA) created as part of Dodd-Frank has expanded the FDIC's tool kit further, allowing greater differentiation in how creditors are compensated. Yet, the US resolution framework is still evolving. A central element that the FDIC is developing is the "single-point-of-entry" approach, which implies that losses in resolution would be imposed (in the first instance) at the holding company level. The Fed has indicated that the Board of Governors is considering a proposal that would require large banks to maintain a minimum amount of long-term unsecured debt at the holding company level. If this happens, then it may lead to considerable subordinated debt issuance by US bank holdcos.

With the implementation of Basel III, prior restrictions on how much Tier 2 capital can count towards total capital and how much subordinated debt can count as Tier 2 capital have been lifted. However, only instruments that are classified as equity for accounting purposes can count towards AT1 capital. Any liability accounted instruments will not qualify.

Moreover, it will probably not be possible to structure AT1 instruments that can be treated as debt for tax purposes – as existing TruPS are. In part, this reflects the absence of any incentive to redeem and the writedown or conversion features, but the main constraint is the perpetual maturity, which under US tax principles mandates equity treatment.

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<sup>28</sup> Bank holding companies with consolidated assets over \$700bn or with assets under custody of more than \$10tr

<sup>29</sup> Insured depository institutions of these banks would need a 6% SLR to be regarded as well capitalised.

<sup>30</sup> See ['The Legacy of the Bank Leverage Ratio \(for Credit\)'](#) J. Shoup, 18 September.

## 21. So where do we still need clarification?

With the implementation of CRD IV, the EBA technical guidelines and the adoption of the Final Rule in the US, there is for the first time now a relatively clear set of parameters around which the hybrid capital market can evolve. However, among the multitude of regulatory initiatives at various stages of implementation, quite a few issues still need clarification before the market can evolve fully. Here we only touch on a few of the more important ones.

At the broadest level, the Basel Committee still needs to publish the final guidelines which refine the categorization of institutions for the SIFI buffer.

Perhaps more importantly for hybrid capital, the framework on the leverage ratio still needs to be finalised. While the BCBS's latest proposal may be scaled back in places, we expect a tougher definition of the Exposure Measure (see question 3) will be adopted. It also remains to be seen whether the leverage ratio will migrate from Pillar 2 to Pillar 1. Once these and other issues have been decided, it will need national implementation, where it already appears that there will be more divergence between regulators than in the minimum capital requirements.

More technical points, like the final calculation of RWAs, and the liquidity measures, may also end up having some impact on the hybrid market, though more on the volumes than the features.

Away from the BCBS, there is, as indicated above, still considerable uncertainty about how regulators will use their Pillar 2 powers. In many countries, frameworks are still being formulated, but the PRA consultation paper illustrates (see question 19) that in some cases it is likely to involve significant departures from the standard Basel III structure. In our view, these Pillar 2 modifications will be the most significant source of variation in both volumes and structure of hybrid debt between banks operating in different jurisdictions.

## Appendix A-1

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