Are CoCo Bonds Suitable as Core Capital Instruments?

Kevin Dowd*

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> "The big lesson from this history [of innovative capital instruments being included in regulatory measures of core capital] is that a going concern capital instrument must *unambiguously* be able to absorb losses when the bank is a going concern. Apologies for stating the blindingly obvious, but history painfully demonstrates why it is important to state the obvious."
>
> Former Bank Deputy Governor Andrew Bailey (2014, my italics)

One of the central innovations of the Basel III bank capital regime is the introduction of a minimum required leverage ratio for regulated banks. The leverage ratio is defined as the ratio of Tier 1 capital to a measure of the total "amount at risk" known as the leverage exposure,[1] and the leverage ratio so defined is required to be at least 3%. This minimum leverage ratio requirement is intended to complement a revised earlier capital ratio, now known as the CET1 ratio, the ratio of core capital, Common Equity Tier 1 capital, to Risk Weighted Assets. The upshot is that Basel III specifies two different regulatory capital ratios, the new leverage ratio and the revised CET1 ratio, with two different measures of core capital as their numerators and two different "amount at risk" measures as their denominators.[2]

It is odd, however, that Basel III has *two* different core capital measures rather than one. One must then ask how it can make sense to have two different measures of core capital, with one broader than the other. One must surely be better than the other. If the narrower one is best, then the broad one should be too broad because it includes softer capital items that the narrow one does not, and if the broader measure is best, then the narrower one is excessively conservative. The use of both measures is intellectually odd and creates scope for arbitrage, encouraging banks to game the difference between the two different measures.

The narrower measure is CET1 and the broader measure is Tier 1, where Tier 1 is defined as the sum of CET1 plus Additional Tier 1 (AT1) capital. Capital instruments are eligible to be classified as AT1 if they meet certain conditions, e.g., that they be issued and paid-in, be perpetual and be subordinate to depositors, general creditors and subordinated

* Kevin Dowd (kevin.dowd@durham.ac.uk) is professor of finance and economic at Durham University in the United Kingdom. He thanks Ayowande McCunn and Sir John Vickers for helpful inputs but the usual caveat applies.

[1] This leverage exposure replaces the old total assets measure and was introduced in part to harmonize the denominators in EU and US leverage ratios in light of the differences between IFRS and US GAAP accounting measures of total assets.

[2] Under the earlier Basel II regime, there were also two different core capital measures, core Tier 1 and the broader measure, Tier 1. Core Tier 1 was transformed into Common Equity Tier 1, whilst the definition of Tier 1 was tightened somewhat and the new category of AT1 was created.

debt.[3] In practice, the AT1 instruments that matter most are Contingent Convertible bonds, known as CoCos, that convert to equity under certain conditions.

The question, then, and the focus of this article, is whether CoCos are suitable as core capital instruments. If they are, then CET1 would be excessively conservative and it would make sense to abandon it, but if they are not, then Tier 1 is excessively broad and it would make sense to abandon it instead.

This question is an important one because major claims have been made about the usefulness of CoCo bonds as a means of recapitalizing a bank in a solvency crisis. Investors in CoCo bonds take on the *de facto* role of providing capital "insurance", providing for their investments to be converted into equity when it is most needed. This provision for contingent capital enables a bank to be recapitalized without it needing to raise additional equity on the market. If this contingent capital can be relied upon, then it would give banks a less expensive way of raising core capital when they need it most. But if it is not, the contingent capital provided by CoCos must be seen as inferior and CoCos should not be regarded as on a par with core capital. In this case, the Tier 1 capital measure that recognises AT1 instruments as core capital should be replaced and only CET1 should be recognised as "true" core capital.

This article is organized as follows. Section 1 explains the basics of CoCos: how they are structured, their purpose, how they work etc. Section 2 discusses some of the general issues and problems that arise with CoCos. Section 3, 4 and 5 examine specific CoCo topics in a little more detail: their triggers, their systemic stability issues and the lessons to learned from the experience of related capital instruments during the Global Financial Crisis (GFC). Section 6 examines the implications of declassifying CoCos as core capital instruments and Section 7 concludes.

1. CoCo Basics

CoCo bonds can be compared to conventional bonds in that they offer investors the prospect of periodic coupon payments. They differ from conventional bonds in that they have a trigger, the breach of which can lead to them being converted into equity. The trigger is expressed in terms of a bank's ratio of Common Equity Tier 1 capital to its Risk-Weighted Assets (RWAs), its so-called CET1 ratio.

The idea is that in good times when the bank is doing well and its CET1 ratio is high, then they function as coupon-paying bonds, but in bad times when the bank's equity falls below the trigger value, they can be converted into equity (or "bailed in") to recapitalize the bank. Their attraction – and it is a big one – is that they offer a bank a means to recapitalize itself when its capital ratio has fallen to a critical low level given by the trigger value, but without the bank having to recapitalize on the adverse terms that would otherwise prevail using a traditional rights issue when the bank has a low share price.

[3] For more on the qualifying conditions for AT1 capital, see Basel Committee on Banking Supervision, p. 15.

CoCo bonds also differ from conventional bonds into two other respects. First, they are issued as perpetual bonds (i.e., they have no maturity or set retirement date), although they can in some cases be bought back by the issuing back after a specified period (e.g., 5 years or more after their issue). Second, while a conventional bond requires that the issuing bank make coupon payments on pain of default, CoCo bonds allow banks to suspend their coupon payments without being in default of the contract under which they were issued.

The investor will be offered a coupon payment higher than that offered on conventional bonds. The difference between the payments offered by the two bonds is an inducement for CoCo investors to take on the extra risks involved, i.e., the risks that coupon payments might be missed or that the bond will be bailed in. Should the CoCo bond subsequently maintain its coupon payments and not be bailed in, then the investor will have realized a higher return *ex post* than the investor in a conventional bond. On the other hand, if the CoCo bond misses a sufficient number of payments and especially if it is bailed-in, then the CoCo investor can be worse *ex post* than the investor in a conventional bond. In a typical bail-in, the CoCo holder's investment will experience a loss (known as a "haircut") on conversion, but in extreme cases in which the bank share price goes to zero, the haircut can be as high as 100%.[4]

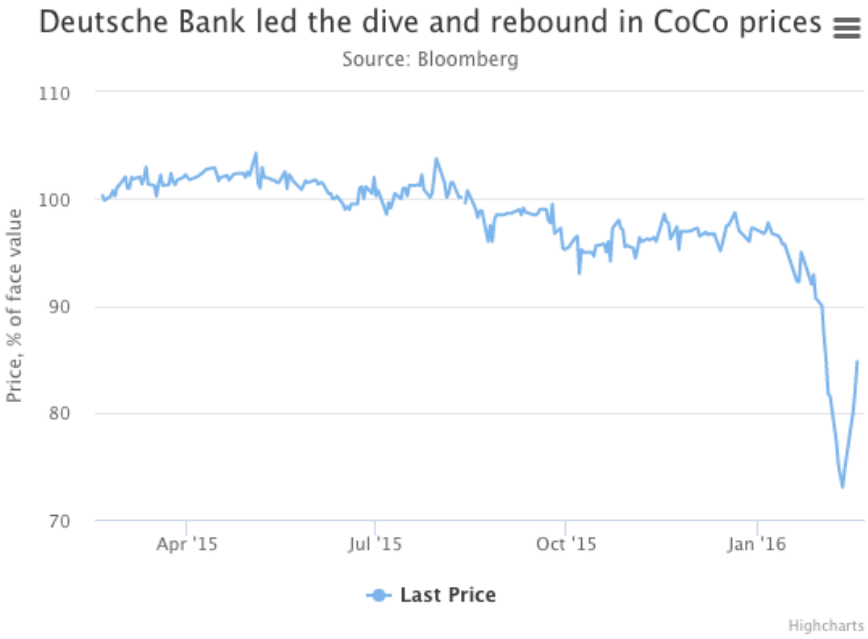
From the issuer's perspective, a CoCo bond is a cheaper source of finance than equity. Bankers are always saying that equity is "expensive" and looking for less "expensive" sources of funding. From their (private) point of view, debt is good because it is "cheap" but if they issue too much debt they over-leverage themselves and run into capital adequacy constraints. The attraction of CoCos is then two-fold:

- CoCos give them contingent equity, which (hopefully) converts into actual equity when it is needed, and which is a less expensive (to them) source of funding than actual equity.
- Under current Basel III capital adequacy rules, CoCos count as core capital that qualifies to meet banks' Basel III minimum leverage ratio requirements.

The price of CoCos would then signal the financial strength of the bank. If the bank is considered to be in good financial shape, then CoCo bonds should trade not too far from par, with any deviation from par mainly depending on how interest rates have changed in the period since the bond was issued. But if investors start to see the bank as financially vulnerable and begin to doubt its solvency, then the price can fall well below par, with the discount from par reflecting the market's perception of the bank's weakness.

An example is given from a *Daily Telegraph* article published on 21 February 2016 (Wallace, 2016). In the early part of this period, this CoCo was trading mostly above par, but from October it started to show fall well below par, and in early 2016 it fell sharply to a little over 70% of par before rebounding.

[4] For example, in the recent case of Banco Popular in Spain, CoCo investors lost all their holdings when these were bailed-in on June 7th 2017 and the Bank was sold to Banco Santander for one euro.



2. Issues and Problems

CoCos give rise to a number of issues.

First principles issues

A good starting point is to ask why a bank would consider issuing CoCos in the first place.[5] If banks want more capital, then why not obtain more capital in the usual ways, via a rights issue (or new share issue) or by building up their equity from retained earnings? To rely on CoCos instead of new share capital is to concede that a bank may not be an attractive investment proposition for its existing shareholders and if that is the case, then those involved should be asking why. Further questions arise if banks seek to issue CoCos at the same time as they are taking measures that reduce their equity outstanding (via share buybacks) or reduce its growth (via dividend distributions).

One might also ask who would be holding these instruments and how the discipline would operate. The banking system can hardly be recapitalized by banks holding each others' CoCos. They are not suitable for retail investors, so much so that some financial regulators (e.g., the UK Prudential Regulatory Authority) prohibit retail investors from holding them. Pension funds are another possible investor class, but they have to operate within risk tolerance limits that would preclude instruments as risky as CoCos and one can imagine the outcry if they were to suffer major losses on CoCos that were bailed-in. Sovereign wealth funds are another possibility, but they are constrained by their risk mandates as well. So it is difficult to see why most investors would be interested in them. On the other hand, they would appear to be ideal vehicles for investors who wish to

[5] CoCos can also be difficult to price, e.g., there may be no theoretical price or there may be multiple theoretical prices (see Sundaresan and Wang, 2010).

speculate on the view that, when push comes to shove in a crisis, then regulators wouldn't dare bail-in investors who had bet against them.

Stability concerns

There are also concerns relating to market and financial system stability:

- CoCos have not been tested in a major crisis.
- CoCos create the possibility of price manipulation and gaming around triggers. As triggers are approached, incentives can be created for market players to manipulate the prices of CoCos or bank stock to avoid or (in more worrying cases) to deliberately trigger conversion.[6] These create the possibility of both death price spirals and runs from weaker banks, creating not just liquidity stress, but broader systemic stress too.[7]
- CoCos send out a distress signal that can aggravate a crisis and may therefore be of no use when most needed. For example, it would be difficult, to say the least, for regulators to authorize the bail-in of a systemically important bank, for fear that doing so might itself trigger a systemic crisis. I shall have more to say on this issue presently.
- CoCos are procyclical and their use by regulators undermine their efforts to counter the cycle.[8]

See also Sir John Vickers (2017):

> … for AT1 capital, which regulation treats as akin to common equity, there are questions about investor understanding, market liquidity, the possibility of downward share price spirals (if the trigger were a market price), the credibility of conversion (if the trigger is a regulatory value, as in fact) and the corresponding risk that regulatory values will be manipulated or relaxed (e.g. by delaying asset impairments or by reducing risk weights) to forestall conversion.

A recent Bank of England article also expressed major doubts about CoCos. To quote, there are

> a number of issues concerning how this new and untested form of capital will work to mitigate risks to financial stability …
>
> While AT1 can potentially increase CET1 of banks under a stress, a sharp market reaction following a trigger event, or as understanding of the features and risks of AT1 instruments evolve, could limit banks' ability to raise further capital and affect confidence in the banking system. It could also impose significant losses on holders of AT1 instruments, some of which

[6] To quote Martin Taylor from the Bank of England's Financial Policy Committe in 2015: "I worry that CoCos may be subject to potentially destablising manipulation by convertible arbitrageurs …"

[7] See also, e.g., Alloway (2011).

[8] Zeng (2014).

> may be systemically important. … [W]ith only limited information on the investor base available at present, it remains difficult to assess precisely this risk for financial stability.[9]

Compare this statement to Andrew Bailey's contemporaneous "blindingly obvious" statement that "a going concern capital instrument must *unambiguously* [my italics] be able to absorb losses when the bank is a going concern." This raises an interesting question for the Bank of England: if Mr. Bailey insists that a going concern capital instrument must unambiguously be able to absorb losses and if the Bank acknowledges that AT1 instruments do not meet this requirement, then why does the Bank allow AT1 instruments to count as core capital for regulatory capital adequacy purposes?

The three following sections further develop on the key issues raised here: the trigger; systemic stability issues; and the lessons to be drawn from experience to date.

3. The CoCo Trigger

When it comes to the trigger, the first issue is whether the trigger is automatic or subject to the discretion of regulators.

CoCos with discretionary triggers …

In practice, real-world CoCos all involve triggers that are dependent on regulatory discretion: when the trigger is breached, it is up to regulators to decide whether to implement the bail-in.

However, there may be reasons why regulators might be reluctant to "pull the trigger". First, there is danger that regulators might fear that authorizing a bail-in could send a distress signal that might make the situation worse, either by undermining confidence in the bank concerned or by creating the potential for contagion that adversely affects other banks. Second, regulators might prefer alternative attempted solutions, such as a lifeboat operation, a government or central bank guarantee or injection of new capital, or nationalization. And third, regulators can anticipate being lobbied to avoid a bail-in by CoCo investors or by other interested parties, notably the government, that would themselves be under lobbying pressure from same those investors.[10]

[9] Bank of England, *Financial Stability Report*, June 2014, Box 3.

[10] To give an example, in late 2015 CoCo investors in a number of small Tuscan banks were bailed in. It turned out that many of these were retail investors who had been missold their investments by unscrupulous salespeople. The result was a major public outcry in Italy which made the Renzi government reluctant to authorise the bail-in of big Italian banks such as Monte dei Paschi the next year.

It follows that the probability of a bail-in should the trigger be breached is always going to be non-zero. No one will know in advance whether a bail-in would be authorized or not, and no-one can quantify the odds either.[11]

However, given the various reasons why regulators might be reluctant to authorise a bail-in, it is probably safe to say that the odds of them doing so would be low for any major institution, especially a systemic one. In the limit, as those odds are perceived to go to zero, we could have a situation where investors are earning a surplus on their yield that does not go to zero to bear a risk that does go to zero. But the general point is that if there is perceived to be a low probability of a bail-in because of a belief that the regulators lack the resolve to "pull the trigger", then investors would be paid excessively and rewarded for calling regulators' bluff. This might be one reason why the market has been growing rapidly and, if I am correct, then their CoCo investment calculations might be rational if socially regrettable.

The regulators would then be caught in a time-inconsistency trap. They implement a policy, the promise of a CoCo bail-in to deliver their anticipated outcome (*A*) in which bail-ins will occur if triggers are breached. However, investors buy the CoCos in the knowledge that there is a high probability that regulators will not be able to make good on that promise, and the result is an anticipated outcome (*B*) in which there is a high probability that bail-ins do not occur regardless of the trigger being breached. The uncertainty over whether a bail-ins would or would not occur is damaging in itself, and regulators do not achieve their desired anticipated outcome *A* but instead get the inferior anticipated outcome *B*.

…. Vs CoCos with automatic triggers

A solution to this time-inconsistency problem is to replace a discretionary trigger with an automatic one, i.e., to have the regulators have their hands in advance like Odysseus did when he wished to hear the Sirens without wrecking his ship. If the trigger is automatic, then everyone would know that the bail-in would definitely occur should the trigger be breached and there would be nothing to be gained from investors lobbying regulators to prevent being bailed in.

However, no bank issues any CoCos with automatic triggers so this solution is currently moot.

Is the trigger sufficiently high?

Another issue that arises is whether triggers are high enough. Recall that the trigger is specified in terms of the CET1 ratio. The trigger would be less than the current CET1 ratio, otherwise the CoCo bond would have been triggered already or we should be asking why it hadn't been. Two cases then arise:

[11] This probability will also be unquantifiable in advance, if only because of the presence of strategic (or game-theoretic) uncertainty.

- If the trigger is reasonably high, then CoCos allow the bank to be recapitalized whilst it is still a going concern.
- If the trigger is too low, then the bank will be distressed and potentially already in or facing the imminent prospect of being put through some "resolution" or bankruptcy process by the time that the trigger is breached. In this case, the CoCo bonds will provide "gone concern" rather than "going concern" capital.

In this context, I would note that the point of core capital is to provide going concern capital, i.e., to support the bank in a crisis whist it is still a going concern, not to support it afterwards when it is a gone concern that is going through resolution or bankruptcy procedures. Therefore, a CoCo capital instrument can only be considered as potential core capital if its trigger is sufficiently high: thus, the height of the trigger is a critical issue for purposes of core capital adequacy.

It is unfortunate, then, that the regulatory definition of AT1 capital quoted earlier in this article does not specify let alone attempt to justify any minimum trigger that allows a CoCo to qualify as AT1 capital. The implication of this omission is that this definition – which is hard-coded into Basel III - allows CoCos with low triggers to qualify as core capital for regulatory purposes despite the fact that they only provide gone concern capital and do not fulfil the economic function of core capital.

This is a gaping weakness hard-coded into the core (pardon the pun) of the Basel capital regime.

But there is still the question of how high the triggers should be for a CoCo to serve as going concern capital. Some insight on this issue is provided by Sir John Vickers (2017):

> Unless conversion is triggered well above levels at which resolution becomes an issue, the theoretical benefit of Cocos as going-concern capital could be evaporated. But the EU Capital Requirements Regulation requires a minimum trigger level of only 5.125% of CET1 capital in terms of RWAs. The PRA requires UK banks to have a minimum trigger level of 7% of CET1 capital, which is better but not a high figure, especially when the possibility of regulatory mis-measurement is allowed for.

So existing regulatory rules are inadequate because they allow CoCos with low triggers based on questionable regulatory and accounting measures to count as AT1 and hence core capital.

A leading expert in this field, Ayowande McCunn, informs me that the trigger probably needs to be at least 11% of CET1 to RWA for the CoCo to be a going concern instrument. If the trigger is too low, CoCos involve forbearance incentives that undermine this primary purpose. As he wrote in a recent working paper:

> CoCos were designed by regulators to absorb losses prior to resolution to create incentives for stakeholders to monitor. However, CoCo stakeholders have incentives to forbear (delay triggering CoCos). This incentive means that CoCos may be triggered as part of resolution (or other insolvency process) rather than being triggered in advance.

> In fact, if CoCos are triggered as part of resolution then they are unlikely to create incentives for stakeholders to monitor. As a consequence, *it is difficult to justify the existence of CoCos as regulatory [core] capital*. Accordingly, it might be argued that CoCos operate, in an economic sense, in a similar way to preference shares with tax deductible interest payments.[12] (McCunn, 2016)

4. Systemic Stability Issues

CoCos work best when we are dealing with a single, small non-systemic bank. In the best-case scenario, regulators would be in a position to resist lobbying from CoCo investors and they would have few systemic risk concerns if they authorised the bail-in. Indeed, it is conceivable in such circumstances that regulators might even be keen to authorise a bail-in to boost their credibility *pour encourager les autres*.

Such a scenario may be somewhat fanciful, however. Regulators must always expect some lobbying and it cannot be assumed that such lobbying would be ineffective even for a small bank. Nor can it be taken for granted that regulators would always be unconcerned about potential systemic risks for a small financial institution.

But these concerns pale into insignificance when we are dealing with a large bank whose failure or distress would have systemic implications or if we dealing with a group of banks or, conceivably, the banking system as a whole.

The point is that CoCos cannot be relied upon to work in a systemic crisis. As Avinash Persaud (2014) observes:

> Bail-in securities may make sense for an idiosyncratic bank failure—like the 1995 collapse of Baring Brothers, which was the result of a single rogue trader. But they do not make sense in the more common and intractable case where many banks get into trouble at roughly the same time as the assets they own go bad. On such occasions these securities, which may also have encouraged excessive lending, either will inappropriately shift the burden of bank resolution on to ordinary pensioners or, if held by others, will bring forward and spread a crisis. Either way they will probably end up costing taxpayers no less and maybe more. In this regard, fool's gold is an apt description. … Either we need real gold – more equity capital – or not. Fool's gold is no alternative. …
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> Bail-in securities are not the silver bullet… they will likely make matters

[12] It is noteworthy in this context that the CoCo's posterboy "success story" – the June 2017 bailing-in of CoCo investors in Banco Popular in Spain – failed in its principal purpose of supporting the bank as a going concern. The main reasons for this failure were (a) the scale of the losses that the bank was carrying, the full extent of which are still unknown and are now Santander's concern, and (b) the low triggers on its CoCos, which meant that the bank's CoCos only provided gone concern capital.

worse. If more gold plating of bank capital is what is required, then this fool's gold will not do.

Now let's suppose that a big system bank has its CoCos bailed in. We can then envisage three different channels by which news of the bail-in can adversely impact other banks:

- There is the "bad news about our bank" channel by which investors perceive the bail-in as conveying bad news about their own banks' financial condition.
- There is the "fire-sale" channel: investors perceive the bail-in as bad news, and then anticipate a greater likelihood that the bailed-in bank will be forced to fire-sale its assets, thereby forcing their banks to write down the values of similar assets in their own portfolios.
- There is the "increased bail-in probability" channel: investors in other banks and their CoCos perceive an increased probability that their banks' CoCos will be in bailed-in as well. An immediate consequence would be that the prices of these other CoCos would fall, with potentially adverse impact on the other banks' share prices.

A second related problem is then obvious: if there is any danger that authorizing a bail-in could trigger a crisis, then regulators would presumably be reluctant to do so – and this is so even if we put aside the (enormous?) pressure that would be put upon them by interested parties lobbying them not to bail-in CoCo investors, including those from the government. Taking all these considerations into account, the chances of regulators authorizing a bail-in with potentially adverse systemic implications must be close to zero.

We can conclude that CoCos cannot feasibly be used to recapitalize banks in the very circumstances in which we would most wish to do so.

But if at CoCos are unlikely to be bailed-in in the face of a prospective systemic crisis, then CoCos will serve no use as a core capital in a crisis (i.e., when it matters). Their impact will then be *ex ante*, serving to inflate perceptions of core capital, specifically, banks' reported Tier 1 capital measures, giving the impression that banks are better capitalized than they actually are. This false risk comfort in the run-up to the next systemic crisis can hardly be good for systemic stability when the crisis hits.

Unless we can be confident that CoCo investors will actually be bailed-in during a crisis – and we can be confident that they will not – then CoCos would appear to be harmful *ex ante*, because they provide false risk comfort, and useless at best in the crisis, because they can't/won't be drawn upon to recapitalize the banks. I say "useless at best" because it is entirely possible that the CoCo market could itself become a systemic stability concern.

Recall that in February last year, Deutsche Bank's well publicised problems led the prices of its CoCos to plunge to about 70% of par before they later rebounded. Prices of other banks' CoCos also fell sharply and new issuance in the market dried up. The falls reflected major concerns focused mainly around Deutsche's solvency but also, to a lesser extent, the solvency of other big European banks as well.

This episode revealed a number of worrying features of the CoCo market in distress. (1) The price discounts made the issue of further CoCos expensive and temporarily almost[13] closed off this route to bank recapitalization. (2) The price discounts were sufficiently high as to suggest that investors were worried about more than the banks temporarily suspending CoCo coupon payments, i.e., investors must have had serious worries about being bailed in and/or about the banks' underlying solvency. (3) The market subsequently recovered, but one could imagine that it could have deteriorated further, in the worst-case scenario front-running a solvency crisis across the entire European banking system. This implies, in turn, (4) that the CoCo market could serve as a new and potentially significant channel of contagion in a future crisis.

5. Lessons from pre-GFC Hybrids

We might even say that that we have seen this movie before. CoCos are a form of hybrid capital and hybrid capital instruments have been around for a long time. Indeed, the experience of hybrids during the GFC is instructive. To quote a speech by Bank Deputy Governor Sir Jon Cunliffe in 2014:

> The market in 2008 and 2009 clearly did not believe either the numbers for bank capital or for bank assets. Capital was not just pure equity. Tier 1 capital also included so-called 'hybrid' capital instruments – debt that was supposed to convert to equity to absorb losses. However, the ability of these instruments to absorb losses proved to be illusory. …
>
> We have tightened up on the required quality of regulatory capital. The 'hybrid' debt instruments that proved not to be loss-absorbing no longer count as Tier 1 capital.[14]

He is right, but omits to mention that CoCos are themselves a form of hybrid capital and share many of the same features of the pre-GFC hybrids that failed to perform during the GFC. If the old chocolate teapot melted during the heat of the last crisis, it might be unwise to assume that the new chocolate teapot that replaced it will not melt during the next one.

6. Implications of Declassifying CoCo Bonds as Core Capital

If CoCos are not suitable as core capital instruments, then they should not be classified as such, but what would happen if they were declassified as core capital? Or, more or less equivalently, what would happen if Basel III and the associated national bank capital rules that incorporate Basel III were amended to allow only CET1 instruments to qualify as core capital?

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[13] In fact, Deutsche issued a new CoCo of about €5 billion later in February as part of a bond market counter-attack. This tactical response may have worked, at least for a while: the price of Deutsche's CoCos recovered before falling to record lows in September that year, before recovering again.

[14] Cunliffe, *op. cit.*, p. 1.

The impact in Europe would be considerable. The entire €125 billion or so outstanding stock of European CoCo bonds would be declassified as core capital, an amount that would represent a notable hit to European banks' reported core capital numbers.

We can also look at the impact this change would make on individual banks' reported core capital ratios. Take Deutsche Bank. Its 2016 *Annual Report* stated that as of December 31 2016, its (fully loaded) CET1, AT1 and Tier 1 capital were €42.3 billion, €4.6 billon and €46.8 billion respectively. Given that its leverage exposure of €46,829 billion, its Tier 1 leverage ratio, the ratio of T1 to leverage exposure, was 3.5%, which is to be compared to the minimum required leverage ratio of 3.0%. If we replace Tier 1 with CET1 as the numerator in the leverage ratio, then its leverage ratio falls to 3.1%, which is just above the regulatory minimum.[15] One then has to see these numbers in the context of Deutsche' s other well-known issues.

Declassifying CoCos as core capital would highlight a key inadequacy of the Basel capital adequacy system and lead to increased pressure on banks to boost their ("true"?) core capital. However, one very much doubts that either European banks nor their regulators would welcome such consequences given the existing strains on European banking, and for that reason I do not expect any such reform to be implemented any time soon, notwithstanding its desirability, even necessity, from a first principles perspective. But hiding the problem does not make it go away. Labelling AT1 capital instruments as core does not make them so in terms of their underlying economic function. Instead, one can only expect European regulators to address this problem as they have addressed most other European banking problems in recent years – to kick the can down the road and hope it goes away.

Failure to address this problem will make it worse later on. In fact, one can even hazard a guess how much worse it will become. The Basel III leverage ratio rules specify that 75% of the minimum required Tier 1 capital should consist of CET1, i.e., that up to 25% of Tier capital can consist of AT1 capital. If we go back to Deutsche, we see that its AT1 capital is only 4.6/46.8 = 10% of its Tier 1 capital. If I were advising Deutsche on how to "optimise" its capital and still be rule-compliant, then ane obvious suggestion is to grow its Tier 1.[16] The same would apply to other big European banks as well. There is thus plenty more room to grow this particular market/problem.[17]

Which point perhaps helps to explain the growth of the CoCo market in the first place.

7. Conclusions

[15] If one replaces the leverage exposure with total assets as the denominator, the picture is worse still: the Tier 1 to total assets ratio falls to 2.9%, which falls further to 2.7% if one uses Tier 1 with CET1. There can be no question that Deutsche is highly leveraged.

[16] The other obvious bit of advice is to push for the lowest possible trigger, but I digress.

[17] Were I advising regulators, my advice would of course be to declassify AT1 as soon as possible. If that is judged to be too "unrealistic" a reform, they can at least try to limit the future growth of this problem. They could do so e.g., by decreasing the eligible proportion of AT1 capital that counts towards Tier 1 for purposes of the minimum required leverage ratio or, better still, pushing to have this proportion gradually phased out over time. One can only wish them good luck with that.

Let me draw the argument together. Why are CoCos unreliable as core capital? One reason is that to function as core capital, they must offer the prospect of new going concern capital. But CoCos can only be going concern if their triggers are high enough and the Basel rules allow CoCos with low triggers to qualify as core capital. A second reason is that for CoCos to function as core capital we must be able to rely on their being bailed-in if triggers are breached, but given the need for regulatory approval and the pressures on regulators not to approve bail-ins, then there is no such reliability. To regard CoCos as core capital is about as sensible as buying home insurance whilst having little reason to believe that you can actually claim on it when you need to. A third reason is that CoCos give rise to a number of serious financial stability concerns: to rely on them can destabilize the financial system in a number of ways, whereas core capital is meant to shore the system up. A fourth reason is that the experience of other hybrids during the GFC gives us no reason to believe that we can rely on them in the next crisis. In fact, the opposite is the case: CoCos are a form of hybrid capital instrument and hybrids failed to perform in the GFC when they were needed. Finally, the size of the CoCo market indicates that the CoCo issue is large enough to be important and there is scope for the market/problem to grow much further and still be Basel III-compliant.

The bottom line is that CoCo or AT1 instruments ought not to be regarded as *on any par* with the best regulatory measure of core capital, CET1.

Going further, based on this analysis, it is doubtful whether CoCos perform any socially worthwhile function at all.

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