

The Coco Solution

*Contingent convertibles
should be part of
financial reform efforts.*

BY GEORGE M. VON FURSTENBERG

It would not be right to claim that contingent convertibles, henceforth cocos, are so familiar as to need no introduction. Recounting their basic features and functions opens the way to examining what is needed to make them grow sustainably to maximum benefit for stabilizing banks by their own means.

COCOS IN A NUTSHELL

Cocos are designed to make banks better able to cope with emergencies outside bankruptcy and to preserve going-concern value whether or not banks are too big to fail. Technically, cocos are that subspecies of contingent convertible bonds that reference a Basel III regulatory capital ratio, principally common equity Tier 1 as a percent of risk-weighted assets, as their trigger. When this capital ratio falls to or below the trigger level, one of two things must happen automatically according to their covenant: Either the coco debt instruments are simply written off in whole or part, or they actually convert into common stock as their name implies. The number of shares issued in conversion then is such that its product with the conversion price—a contract variable fixed already at the time of the coco issue—is equal to the face value of the cocos converted. The permanent debt forgiveness associated with conversion of all but write-down, write-up cocos helps with

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deleveraging and raises retained earnings and hence CET1 even though paid-in capital does not increase.

When cocos with a low CET1 trigger, such as 5 percent of risk-weighted assets, are activated, the issuing bank is likely to be close to the point of non-viability where the relevant national authority would be called upon to resolve the institution. However, high-trigger cocos that are set off at a CET1 ratio of 7 percent or more are “recovery” rather than “resolution” cocos: Their conversion would bring the bank’s CET1 ratio again above the minimum required.

Cocos may qualify as additional Tier 1 capital or as less-reliably loss absorbing Tier 2 components of regula-

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tory capital. The minimum CET1 requirement is currently 4.5 percent of risk-weighted assets. Additional Tier 1 cocos may account for at most 1.5 percentage points in the total Tier 1 requirement of 6 percent. Cocos classified as Tier 2 may contribute up to 2 percentage points of the minimum total capital percentage of 8 percent. Hence, if additional Tier 1 and Tier 2 were wholly composed of high-trigger and low-trigger cocos, respectively, the two types of cocos together could amount to as much as 3.5 percent of risk-weighted assets from a national regulator’s perspective. U.S. regulators are alone in categorically denying additional Tier 1 cocos credit for satisfying Tier 1 requirements, requiring more CET1 instead.

BUILDING UP COCOS

Cocos started big when Lloyds Banking Group issued a total worth almost £9 billion in various currencies within a few months in 2009–2010. Volume outstanding then stalled briefly before reaching \$50 billion by the end of 2012 and around \$100 billion by mid-2014. When Barclays Bank announced the launch of a new Global Contingent Capital Index in June of 2014, it contained sixty-five coco issues from more than a dozen countries. EU countries still accounted for over 90 percent of the total amount outstanding, with the United Kingdom remaining in the lead.

To gauge how much room there might be to raise the total of cocos outstanding further, *The Banker* database was helpful as a means to obtain the year-end 2013 risk-weighted asset levels for the top fifty banks most likely to be prime prospects for cocos. This risk-weighted asset total

was \$30.462 trillion. At most 3.5 percent thereof could eventually take the form of cocos, since debt instruments and preferred hybrids no longer qualifying for additional Tier 1 or Tier 2 need to be replaced in coming years. The *maximum maximorum* on cocos thus could be \$1 trillion. Long before getting there, cocos, which are required to be perpetuals if they are to qualify as additional Tier 1 capital, themselves may start to be replaced since their first call date is usually ten years after the time of issue.

Cocos in the amount of \$1 trillion would not look patently implausible on the fifty banks’ balance sheets. These banks had aggregate total assets of \$65.507 trillion and an asset-weighted average risk-weighted asset/total asset ratio of 0.465. Now too-big-to-fail banks tend to have long-term debt that amounts to around 8 percent, that is, 10 percent or less, of total assets. Then 3.5 percent of risk-weighted assets would be only 1.6 percent of total assets and thus just 20 percent of long-term debt. Incidentally, the Tier 1 capital aggregate for the same group was \$3.661 trillion. The resulting Tier 1/total asset ratio, a close cousin to the Basel III leverage ratio, of 5.59 percent asset-weighted and 5.81 percent on simple average, is almost twice as high for the top fifty banks as the 3 percent which some who have seen through the bankers’ new clothes have reported and characterized as “outrageously low.” Such contentious matters are discussed in my just-published book, *Contingent Convertibles [CoCos]: A Potent Instrument for Financial Reform* (2014).

COCOS OF APPROPRIATE DESIGN

High-trigger cocos as originally designed have only two possible endings: They would either be paid in full at maturity (Tier 2 cocos) or when called, or the issue would be written off permanently when triggered and converted into equity on its own terms. Because regulators have no cause for interfering with the built-in automatic conversion mechanism when the bank is still well away from the point of non-viability, unlike with low-trigger cocos, there could be no other outcomes. The market value of the common stock issued in conversion should be expected to end up somewhat below the face value of the cocos converted in order to make their holders keep a close watch on the bank and its management. In the absence of risk aversion, the yield on cocos should then be equal to the riskless rate for their remaining term plus a conversion risk premium that compensates for the expected loss conditional on conversion. To calculate this premium requires three factors: that appropriate riskless rate, the annual probability of conversion conditional on survival for successive years, and the recovery rate expected from converting cocos into common stock.

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Analytically, the conversion probability is positively related to the trigger level and inversely to the size of the bank's "excess" capital, a voluntary CET1 buffer above its required level. A buffer of 3 to 4 percentage points, with outlook stable, could also help qualify a bank with a stand-alone credit profile of at least a- for an investment-grade rating (BBB- or higher) of its cocos issue from Standard & Poor's and Fitch on account of the low probability of conversion. Only Moody's has so far refused to rate high-trigger cocos, citing regulatory uncertainty even though high-trigger cocos would be far less exposed to it than low-trigger cocos. The implication is that banks should issue high-trigger cocos when they are well-capitalized and maintain their cocos shield thereafter to remain insured by the equity contingently provided by the holders of their cocos. In addition, they should aim for a high recovery rate on cocos, much closer to 1 than to 0, which would support an investment-grade rating and lower the conversion risk premium.

The recovery rate expected when cocos are issued is equal to the share price then expected conditional on conversion divided by the conversion price for the relevant cocos issue. Write-down-only cocos, which became the rule rather than exception for cocos issued in 2011–12, have a recovery rate of zero as if the conversion price had been set to infinity. All gains from debt cancellation then go to existing shareholders. The Basel Committee on Banking Supervision also endorsed the other extreme of a recovery rate of 100 percent for cocos holders by making the market price of shares observed after (the announcement of) conversion, MP_c , serve as the conversion price, rather than having the conversion price fixed at the time of cocos issue. Such complete recovery would de-motivate cocos holders from exercising debt discipline over management. Hence both extremes, yielding a recovery rate, $MP_c/\text{conversion price}$, of 0 or 1 respectively, must be rejected on incentive grounds. Furthermore, the number of shares issued in conversion must be fixed at the time of cocos issue to allow the exposure to be calculable and hedged. The question then is what the best intermediate value of the recovery rate would be and how it could be implemented.

Avoiding adverse spillover and achieving sustainability—a bank's ability to replenish its cocos portfolio soon after conversion—provide guidance. Cocos holders should suffer some losses from conversion, but these losses should not be so large that institutional investors, like hedge funds, would be exposed to serious harm that could spill back into the banking system which extends credit to such funds. For instance, UBS has been a champion of write-down-only cocos with coupons ranging from 7.625 percent to a mere 4.75 percent. If it would get

so decapitalized that it would be required to cancel first its currently \$1 billion high-trigger and then all its \$8 billion low-trigger cocos debt outside bankruptcy, it would not be able to reissue such "drop dead" cocos anytime soon.

The upshot is that the targeted recovery rate should be around 80 percent, with pre-existing shareholders gaining 20 percent of the face value of cocos that are written off. This might be just enough to get them to agree to the issuance of cocos in the first place. It should not be enough to get them to press for a course of action

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raising the risk of conversion in view of the large stock price decline likely to accompany the capital ratio's fall to the trigger level.

To implement a recovery-rate target of 80 percent, the conversion price should be set at the time of issue at 1.25 times MP_c , the then-expected stock price level most likely to prevail at conversion. Mindful of the adversities leading to conversion, MP_c should be expected to be at most half as high as MP_i , the market price prevailing when the cocos were issued. But what if the guess that $MP_c=0.5MP_i$ and the conversion price of $0.625MP_i$ based on it turn out to be widely off the mark?

To firm up the recovery-rate target at 80 percent *ex post*, cocos holders might be accorded the right to convert their cocos, if not already triggered under their built-in mechanism, at any time when the actual share price is 80 percent or less of the conversion price. Cocos issued with such a put option would be eminently sustainable since their holders could be confident of 80 percent recovery unless there is an abrupt drop in stock price and CET1 at conversion. Such gapping and implosion could perhaps be brought on by privateering prosecutors announcing large fines.

STEPPING STONES TO SELF-RELIANT BANKING

Correctly designed cocos can make pre-existing stockholders support their issuance and induce holders to steer away from excessive risk-taking that could trigger conversion. Issuing high-trigger cocos strengthens the ability of banks to protect their going-concern value. All types of cocos provide for contingent cancellation of the cocos debt outside bankruptcy, but high-trigger cocos, by targeting and ensuring high recovery rates, also make cocos issuance sustainable. Being a self-insurance payoff mechanism, cocos conversion simultaneously deleverages and boosts equity capital in a crisis just when such capital is most needed but least readily available.

High-trigger cocos can do much more for the survival of banks than other subordinated debt which has become bailinable in the hands of national regulators with uncer-

tain outcomes. Nevertheless, some regulators have discriminated against cocos by keeping the deductibility of interest paid on them in doubt and categorically denying additional Tier 1 credit to cocos that would qualify for meeting parts of regulatory capital requirements elsewhere. When Germany's Finance Ministry fell in line with other EU countries on pertinent tax matters in April 2014, the United States was left as the country least favorable to the issuance of cocos with regard to tax treatment and regulatory credit. Beyond this, the Basel III framework may be faulted for generating uncertainty about the self-insurance payoff by not placing high-trigger cocos beyond the reach of regulatory override of their built-in conversion terms. In view of chronic failure at preparedness, regulators should not obstruct, or interfere with, helpful precautionary arrangements made without them. ◆