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Outline

- What is a Contingent Convertible (CoCo)?
- Why was it created?
- What are the characteristics of CoCos?
- What are the problems?
- What solutions have been proposed?
- Will CoCos prevent a systemic financial crisis?

What is a CoCo?

Definition:

"A CoCo is a debt instrument that automatically converts into equity or suffers a write down when the issuing bank gets into a state of a possible non-viability. This is a situation where the future of the bank is questioned by the depositors, bondholders, and regulators."

(De Spiegeleer and Schoutens, 2012)

Why were CoCos introduced?

- CoCos issuance is primarily driven by their potential to satisfy regulatory capital requirements and strengthen the resilience of the banking system (Avdjiev et al., 2013).
- Contingent capital instruments increase the capital and reduce the debt of a financial institution in times of stress (Pazarbasioglu et al., 2011).
- Contingent capital instruments could reduce the need for public bail-outs (Pazarbasioglu et al., 2011).

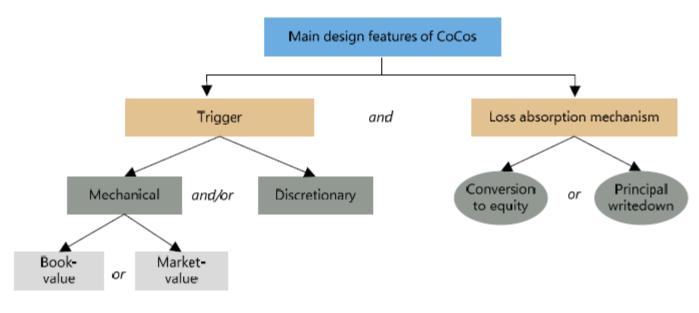
CoCos' Characteristics

- The valuation of a CoCo depends on the trigger and the conversion ratio.
- A trigger specifies the conditions under which there will be a conversion into shares or a write-down.
 - Accounting
 - Market
 - Regulatory
- A conversion ratio is the number of shares that the holder of a bond is going to receive when the trigger is activated.

(De Spiegeleer and Schoutens, 2012)

CoCos' Characteristics

Structure of CoCos Graph 1



Source: Avdjiev et al. (2013, p.45)



CoCos' Characteristics

Table 1: Overview of Some Contingent Capital Bonds and Their Main Characteristics

| | Lloyds | Rabobank | Credit Suisse | Bank of Cyprus | UBS |
|-------------------------|-------------------------|----------------------------|------------------|---------------------|-------------------------|
| Host | Fixed Coupon Bond | Fixed Coupon Bond | Callable Bond | Convertible Bond | Fixed Coupon Bond |
| Issue Size | \$13.7 bn | €1.25 bn | \$2 bn | €890 m | \$2 bn |
| Issue Date | Dec-09 | Mar-10 | Feb-11 | May-11 | Aug-10 |
| Maturity | 10-22 year | 10 year | 30 year NC5.5 | Perpetual NC5 | 5 year |
| Trigger | CT1 | Equity Capital Ratio | CT1 | CT1 | CT1 |
| Trigger Level | 5% | 7% | CT1 7% | 5% | 5% |
| Regulatory Trigger | No | No | Yes | Yes | Yes |
| Trigger Event | Conversion | Haircut 75% | Conversion | Conversion | Haircut 100% |
| Conversion Price | Fixed | | Floored | Floored | |
| Regulatory Treatment | T2 | | T2 | T1 | T2 |

Source: De Spiegeleer and Schoutens (2013, p.131)



- Large investors will be forced to sell their converted bond position as they are not allowed to hold shares. This can lead to even a lower share price of a bank.
- Under an incomplete contract scenario (i.e., when the manager-owners decide over bank's investment policy and risk), CoCos distort risk-taking incentives.
- This destabilizing risk-shifting problem might be greater than the stabilizing effect of providing a pre-committed recapitalization to banks.

(Koziol and Lawerenz, 2012)



- Spiegeleer and Schoutens (2013) show that even a very small share price movement can cause large losses to the CoCo holder. They argue that a large short exposure in shares will be needed to neutralize this risk, which in turn will drive the stock price even further down.
- Calomiris and Herring (2013) argue that prudential regulation failed to require financial institutions to maintain adequate capital because (1) incentive problems distorted the measurement of risk and (2) incentive problems discouraged the timely replacement of lost equity capital.



- Absence of credit ratings for CoCos
 - Heterogeneity in the regulatory treatment of CoCos across jurisdictions hinders the creation of consistent rating methodologies.
 - The existence of discretionary triggers creates valuation uncertainty and further complicates the ratings process.

(Avdjiev et al., 2013)



- Preliminary evidence shows that investors who primarily buy CoCos are focused on short-term gains (i.e., retail investors, private banks, and hedge funds). This type of buyers is not what regulators want.
- Long-term holders such as primarily pension funds and life insurance companies might not be the ideal investors to hold CoCos.
- Pension funds and insurance companies need assets that provide higher yields as compensation for liquidity risk not credit risk.

Persaud (2014)

Who should hold CoCos

Credit risk, which is embedded in CoCos, is a risk that rises with time and is best held by investors with access to a wide range of credit risks that they actively diversify and manage over the short-term and not by investors who buy and hold for a long time (Persaud, 2014).

Risk-shifting incentives

CoCos should be used only in conjunction with devices to control risk-shifting incentives (Koziol and Lawerenz, 2012).

Bank executive remuneration packages can be designed to incorporate a dimension that rewards the maintenance of a high market value of any bail-in securities on issue (Australia and New Zealand Shadow Financial Regulatory Committee, 2015).

A study showed that banks that provided risk managers with greater compensation and standing within their organizations experienced smaller crisis-related losses and lower stock price volatility prior to the crisis (Calomiris and Herring, 2013).

Single trigger versus multiple triggers

Instead of issuing CoCos with one single trigger, a financial institution could issue CoCos containing multiple triggers, each of which would convert a fraction of the bond (De Spiegeleer and Schoutens, 2013). Or issue CoCos with dual triggers with the first trigger leading not to conversion but suspension of the coupon payment (Persaud, 2014).

All CoCos should convert if conversion is triggered and the conversion ratio should dilute the position of pre-existing equity holders (Calomiris and Herring, 2013).



<u>High-level triggers versus low-level triggers</u>

Instruments with high-level triggers (i.e., set at capital levels well above distress thresholds) can be a useful tool for crisis prevention.

Instruments with low-level triggers can be useful tools for orderly resolution.

Circuit breakers can be specified in debt contracts to avoid potential sharp share price declines.

Pazarbasioglu et al. (2011)

<u>Triggers and systemic events</u>

Conversion should be made contingent not only on the individual firms capital ratio, but also on a systemic event (Koziol and Lawerenz, 2012).

CoCos' conversion could be linked to a date when aggregate banking industry losses exceed a trigger level (Kashyap et al., 2008).

A CoCo could convert only if (1) the bank's stock price breaches a trigger and (2) an aggregate financial institution's stock index falls below another trigger (McDonald, 2013).

CoCos and systemic crises

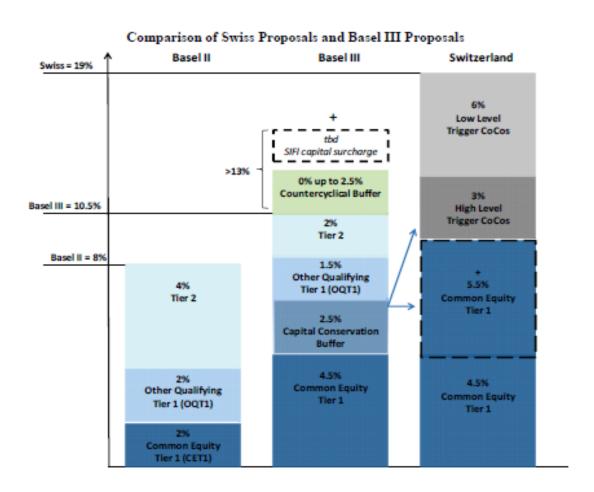
Can CoCos reduce systemic risk?

The ability of CoCos to reduce systemic risk depends on whether their buyers are themselves systemically important (Avdjiev et al., 2013).

While these instruments could be useful additions to the crisismanagement toolkit, they are unlikely to be effective as stand-alone tools (Pazarbasioglu et al., 2011).

CoCos may make sense for an idiosyncratic bank failure but not when many banks run into trouble at the same time (Persaud, 2014).

An illustration



Source: Pazarbasioglu et al. (2011, p.17)

References

Australia and New Zealand Shadow Financial Regulatory Committee (2015). Bail In: Not a Panacea, *Statement No. 13*, 1–4.

Avdjiev, S., Kartasheva, A., and Bogdanova, B. (2013). CoCos: a primer, BIS Quarterly Review, September, 43–56.

Calomiris, C. W. and Herring, R. J. (2013). How to Design a Contingent Convertible Debt Requirement That Helps Solve Our Too-Big-to-Fail Problem, Journal of Applied Corporate Finance, 25(2), 39–62.

De Spiegeleer, J. and Schoutens, W. (2012). Pricing Contingent Convertibles: A Derivatives Approach, The Journal of Derivatives, Winter, 27–36.

De Spiegeleer, J. and Schoutens, W. (2013). Multiple Trigger CoCos: Contingent Debt Without Death Spiral Risk, Financial Markets, Institutions & Instruments, Topics in Financial Intermediation, New York University Salomon Center, 129–141.

Kashyap, A., Rajan, R. and Stein, J. (2008). Rethinking Capital Regulation, Federal Reserve Bank of Kansas City Economic Symposium on Maintaining Stability in a Changing Financial System, 431–471.

Koziol, C. and Lawrenz, J. (2012). Contingent convertibles. Solving or seeding the next banking crisis?, Journal of Banking & Finance, 36, 90–104.

McDonald, R. (2013). Contingent Capital with a Dual Price Trigger, Journal of Financial Stability, 9, 230–241.

Pazarbasioglu, C., Zhou, J., Le Leslé, V., and Moore, M. (2011). Contingent Capital: Economic Rationale and Design Features, IMF staff discussion note, SDN/11/01, 2–35.

Persaud, A.D. (2014). Why Bail-In Securities Are Fool's Gold, Peterson Institute for International Economics, Policy Brief Number PB14-23, 1–7.