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Investors' Trash, Taxpayers' Treasure: The Banco Popular Wipeout and Contingent Convertible Bonds

I. INTRODUCTION

One man's trash is another man's treasure. The old adage applies to the banking and finance industry and there is no better instrument to illustrate this adage than the volatile contingent convertible bond. Contingent convertible bonds ("CoCo bonds") are hybrid debt instruments.¹ Once the issuing bank's capital ratios fall below a certain threshold or regulators determine it is appropriate, the bond is converted into stock for the bondholder or written down if the bank needs to raise its capital levels.² These bonds have enticed investors due to their attractively high yields.³ However, recent events show that the yields may not be worth the risk to bondholders, but could be invaluable to taxpayers.⁴ CoCo bonds came about after the 2008 financial crisis and were designed as part of a global regulatory shift to prevent banks from needing taxpayer-funded bailouts.⁵ Both the Third Basel Accord ("Basel

1. Oscar Williams-Grut, *Here's What CoCo Bonds Are and Why Investors Are Freaking Out About Them*, BUSINESS INSIDER (Feb. 11, 2016, 4:11 AM), <http://www.businessinsider.com/what-are-coco-bonds-2016-2>.

2. *See Banco Popular: First European AT1 Hybrid (CoCo) Triggered*, BONDADVISER (June 15, 2017), <http://www.bondadviser.com.au/blog/banco-popular-first-european-at1-hybrid-coco-triggered/> [hereinafter BONDADVISER] ("CoCos are the equivalent of post-transitional Australian Bank Additional Tier 1 (AT1) Hybrids which carry Capital and Non-Viability Triggers. They pay discretionary coupons and carry the potential (Capital and Non-Viability Triggers) to be converted into shares if the bank's capital ratios fall below a certain threshold, making them the first capital holders (behind equity investors) to be wiped out in a bank failure."); *see also* Erica Jeffery, *AT1 Capital/CoCo bonds: What You Should Know*, EUROMONEY (Nov. 24, 2017), <https://www.euromoney.com/article/b12kqjlvwsz26k/at1-capitalcoco-bonds-what-you-should-know> ("[CoCo bonds] contain a contractual provision to convert into ordinary shares or are [written down] if a bank needs to raise its capital levels, once the CET1 ratio threshold has been breached, or if authorities determine the issuer has reached the point-of-non-viability (PONV).").

3. *See* Williams-Grut, *supra* note 1 (describing the typical high yields carried by CoCo bonds and the two-fold effect the design is intended to have).

4. *See* Williams-Grut, *supra* note 1 (discussing investors' growing fears in aspects of the bond, such as missed interest payments).

5. *See* Williams-Grut, *supra* note 1 ("Coco bonds were cooked up after the financial crisis as a way to prevent banks from needing any more state bailouts.").

III”) and the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank”) responded to the crisis by setting capital and liquidity requirements to manage the risk of systemically important financial institutions (“SIFIs”).⁶ Should capital and liquidity requirements prove incapable of solving the too big to fail problem, however, the concept of contingent capital appears to serve as an appealing alternative.⁷ Debt that converts to equity contingent on signs of institutional failure would ideally serve a two-fold purpose: it lessens the bank’s debt burden while boosting its capital.⁸ The conversion of debt into equity is triggered by the institution coming under financial stress, and is designed to prevent the need to bail out failing institutions by creating a bail-in alternative that imposes losses on bondholders rather than taxpayers.⁹ The recent acquisition of Banco Popular by rival Banco Santander SA (“Santander”) in June 2017 was the first time these instruments foisted losses on the bondholders and serves as the first illustration for investors and institutions alike of CoCo bonds being put to the test.¹⁰ As the recent failure of Banco Popular revealed, CoCo bonds

6. See BASEL COMM. ON BANKING SUPERVISION, *BASEL III: A GLOBAL REGULATORY FRAMEWORK FOR MORE RESILIENT BANKS AND BANKING SYSTEMS 2* (2010), <http://www.bis.org/publ/bcbs189.pdf> (“The Basel Committee is raising the resilience of the banking sector by strengthening the regulatory capital framework”); see also Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) § 171, 12 U.S.C. § 5371 (2016) (setting leverage and risk-based capital requirements). Basel III mandates a phase-in of increased capital ratios. The rationale is that increase in capital provides greater cushion to absorb losses so that the larger the cushion, the more losses the institution can assume before reaching insolvency. See LISSA L. BROOME & JERRY W. MARKHAM, *REGULATION OF BANK FINANCIAL SERVICE ACTIVITIES: CASES AND MATERIALS 561* (4th ed. 2011) (“Areas of emphasis included raising the quality of Tier 1 capital, introducing a leverage ratio, . . . implementing a liquidity coverage ratio to ensure that the institution has sufficient liquidity to survive one month of acute stress, promoting build-up of capital in good times so that it could be drawn upon in times of stress, and requiring higher capital or risk weights to capture the risks of complex trading activities and securitization exposures.”). Congress continued the renewed emphasis on capital in the Dodd-Frank Act. LISSA L. BROOME & JERRY W. MARKHAM, *REGULATION OF BANK FINANCIAL SERVICE ACTIVITIES: CASES AND MATERIALS 562* (4th ed. 2011).

7. See Williams-Grut, *supra* note 1 (“Coco bonds were cooked up after the financial crisis as a way to prevent banks from needing any more state bailouts.”).

8. Williams-Grut, *supra* note 1.

9. See Williams-Grut, *supra* note 1 (Explaining that “rather than the bank owing you money, you suddenly own a little bit of the bank[,]” which is “a way to prevent banks from needing any more state bailouts.”).

10. See Robert Smith, *Coco Bond Contagion Contained After Banco Popular Wipeout*, FIN. TIMES (June 7, 2017), <https://www.ft.com/content/1b26153a-4b7c-11e7-a3f4-c742b9791d43> (discussing the sudden collapse of Banco Popular’s CoCo bonds as the first instance losses have been imposed on AT1 bondholders and that the CoCo bond contagion was successfully contained after the wipeout of Banco Popular).

appear to be successful in absorbing some loss suffered by the issuer,¹¹ but overall, fall short in rescuing an institution from failure and should not be relied on to do so.¹²

This Note discusses how the recent acquisition of Banco Popular and its CoCo bonds' wipeout is revealing of the fundamental characteristics and functions of the instrument through discussion of four major areas of the contingent convertible bond. First, the bonds' one-time conversion may be inadequate to prevent failure;¹³ second, there is a lack of uniformity in CoCo bonds' trigger mechanism;¹⁴ third, conversion of CoCo bonds contributes to increasing market uncertainty and contagion;¹⁵ and finally, CoCo bonds encompass certain inherent risks for investors unlike any other type of bond instrument.¹⁶ As such, these CoCo bonds, or Additional Tier 1 ("AT1") securities,¹⁷ may be inherently risky, exotic high-yield bonds in and of themselves and are likely not dependable in offering systemic protection to financial institutions.¹⁸ Capital rules and regulatory requirements must be globally consistent to ensure a level playing field and to avoid regulatory arbitrage.¹⁹ Further, there is a need for uniformity in the bonds' loss-absorption mechanism and greater investor knowledge of the risks that come with the bonds.²⁰

11. *See id.* ("The sudden collapse in the value of Banco Popular's bonds has been dramatic. Its now worthless €1.25bn of Additional Tier 1 bonds were still trading at about half of face value before the bank's resolution and takeover by rival Santander was announced on Wednesday morning. This is the first time losses have been imposed on AT1 bondholders.").

12. *See* BONDADVISER, *supra* note 2 (describing the auctioning of Banco Popular initiated by the European Central Bank, the entity that deemed Popular "failing or likely to fail" and called for a point of non-viability trigger of the bank's CoCos).

13. *See infra* Part IV.A.

14. *See infra* Part IV.B.

15. *See infra* Part IV.C.

16. *See infra* Part IV.D.

17. *See* BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 12, 15 (setting out details of Additional Tier 1 capital as a method of strengthening the global capital framework).

18. *See* Thomas Hale, *Credit Ratings Bolster Risky Bank Bonds*, FIN. TIMES (Sept. 8, 2015), <https://www.ft.com/content/98c41bd0-562e-11e5-a28b-50226830d644> ("Exotic, high-yielding bank bonds developed in the aftermath of the financial crisis are increasingly attracting investment grade credit ratings, a category that allows big institutional investors to buy such debt.").

19. INT'L SWAPS AND DERIVATIVES ASS'N, INC., THE BASEL III TIMELINE (2015), <https://www.isda-iq.org/2015/10/16/the-basel-iii-timeline/>.

20. *See infra* Part V.

This Note proceeds in six parts. Part II provides a regulatory background and describes the impetus behind the creation of CoCo bonds.²¹ Part III introduces the purpose and design of CoCo bonds.²² Part IV analyzes the aforementioned problem areas of CoCo bonds in the context of the Banco Popular wipeout.²³ Part V proposes recommendations to make uniform the trigger mechanism of the instrument.²⁴ Finally, Part VI summarizes the findings and problem areas as revealed by Banco Popular's buyout and concludes this note.²⁵

II. REGULATORY BACKGROUND AND IMPETUS BEHIND THE CREATION OF CoCo BONDS

The 2008 financial crisis revealed the banking sector's reliance on capital bases that were insufficient and poor in quality.²⁶ As a result, regulators recognized a need for higher and better quality bank capital.²⁷ In 2010, the Basel Committee on Banking Supervision ("the Committee") issued Basel III, a global agreement on banking supervision in response to the financial crisis.²⁸ Basel III sets out an international framework for liquidity risk measurement, standards, and monitoring, which presents the Committee's reform measures to strengthen the regulation, supervision, and risk management of the banking sector.²⁹ In its aim to reform "quality, consistency, and transparency of the capital base,"³⁰ the

21. *See infra* Part II.

22. *See infra* Part III.

23. *See infra* Part IV.

24. *See infra* Part V.

25. *See infra* Part VI.

26. SIDLEY AUSTIN LLP, *BASEL III – ADDITIONAL TIER 1 GOING-CONCERN CAPITAL AND TIER 2 CAPITAL 1* (2010), <https://www.sidley.com/en/insights/newsupdates/2010/12/basel-iii—additional-tier-1-goingconcern-capital-and-tier-2-capital> (explaining the Basel Committee's standards for better quality capital in addressing systemic risks to the banking sector).

27. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 2. The Basel Committee on Banking Supervision consists of senior representatives of bank supervisory authorities and central banks from Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 1 n.1.

28. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 1.

29. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 1.

30. ZE'EV D EIGER ET AL., *CONTINGENT CAPITAL SECURITIES: AN OVERVIEW*, MORRISON & FOERSTER LLP (Apr. 1, 2016), <https://content.next.westlaw.com/Document/I8417b2301cb111e38578f7ccc38dcbee/View/>

regulatory accord cracks down on risk management by implementing more demanding capital and liquidity standards.³¹ The accord also sets forth rules on the type and quality of capital banks must have.³² It requires total regulatory capital to include Tier 1 capital, which consists of Common Equity Tier 1 (“CET1”) as well as AT1.³³ In furthering the goals of its regulatory capital requirement, Basel III provides a loss-absorbency criteria that must be satisfied for non-common equity to be classified as Tier 1.³⁴ Non-common equity must be capable of principal loss absorption through either conversion to equity in the form of common shares at an objective pre-specified trigger point, or principal write-down mechanism which allocates losses to the bondholders, also at a pre-specified trigger point.³⁵ If these criteria are met, issued CoCo Bonds would qualify as AT1 instruments and therefore be considered regulatory capital.³⁶ In 2011, the Basel Committee announced that global systemically important financial institutions (“G-SIFIs”) would not be allowed to use contingent convertible bonds to meet Basel III’s capital requirements.³⁷ However, use of contingent capital to meet national loss

FullText.html?originationContext=knowHow&transitionType=KnowHowItem&contextData=(sc.Default)&firstPage=true&bhcp=1.

31. *Basel III Summary*, IBM, https://www.ibm.com/support/knowledgecenter/en/SSN364_8.8.0/com.ibm.ima.tut/tut/bas_imp/bas3_sum.html (last visited Feb. 2, 2017) (summarizing the provisions of Basel III and specifically, the capital requirements introduced to strengthen banks’ capital requirements and introduce more capital buffers).

32. INT’L SWAPS AND DERIVATIVES ASS’N, INC., *supra* note 19.

33. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 12.

34. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 17.

35. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 17. Per the Basel III Accord, contingent convertible bonds do not have to convert in order to meet the Additional Tier 1 criteria. However, the accord specifies several criteria for CoCos for inclusion in AT1 capital, such as, that the CoCos be issued and paid-in, is perpetual, is callable only after a minimum of five years, has discretionary dividends/coupon payments, and that any repayment of principal must have prior supervisory approval. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 17.

36. Jeffery, *supra* note 2.

37. See CADWALADER, WICKERSHAM & TAFT LLP, CLIENTS & FRIENDS MEMO: CONTINGENT CONVERTIBLE BONDS AND THE IMPACT OF BASEL III (2011), http://www.cadwalader.com/uploads/cfmemos/del_6c7bccb69301edb86111be23d5cf8ea2.pdf (“An example of these supplementary national requirements is a proposal by the Swiss Financial Market Supervisory Authority . . . [which requires] Swiss banks to meet total capital ratio requirements of 19 percent. Of this proposed 19 percent total capital ratio, large Swiss banks may use CoCos to meet 9 percent of their total capital ratio. The remaining 10 percent must be held in the form of common equity, comfortably covering the ‘Basel’ element of the capital requirement.”).

absorbency requirements *supplementing* Basel's loss absorbency requirements would be condoned by the Committee.³⁸

Basel III must be implemented by countries into their own national laws in order to be legally binding.³⁹ The Basel Committee began phasing in its Basel III requirements in 2013 and full Basel III implementation is expected to be finalized in 2019 according to the Committee timetable.⁴⁰

As for the United States, Dodd-Frank contains provisions relating to capital requirements for U.S. banking institutions.⁴¹ Specifically, Dodd-Frank calls for stricter prudential standards for SIFIs.⁴² Of the nine recommendations for greater regulation, five concern additional capital, contingent capital, or liquidity requirements.⁴³ In terms of capital requirements, both Dodd-Frank and Basel III provide explicit minimum leverage ratios—capital over total assets—along with minimum capital ratios—capital over risk-weighted assets.⁴⁴ Specific to CoCo bonds,

38. *Id.*

39. EIGER ET AL., *supra* note 30; *see* BD. OF GOVERNORS OF THE FED. RESERVE SYS., BASEL REGULATORY FRAMEWORK (2017), <https://www.federalreserve.gov/supervisionreg/basel/basel-default.htm> (describing Basel III as a comprehensive set of reforms and laying out recent updates on the Federal Reserve Board's proposed rules similar to the requirements of Basel III, such as provisions to strengthen the liquidity positions of large financial institutions). In the United States, the Federal Reserve Board finalized a rule to implement Basel III capital rules in July 2013 to ensure banks maintain strong capital positions by increasing both the quantity and quality of capital held by U.S. banking organizations. BOARD OF GOVERNORS OF THE FED. RESERVE SYS., BASEL REGULATORY FRAMEWORK (2017), <https://www.federalreserve.gov/supervisionreg/basel/basel-default.htm>.

40. INT'L SWAPS AND DERIVATIVES ASS'N, INC., *supra* note 19; *see* Press Release, Bank for Int'l Settlements, Twelfth Progress Report on Adoption of Basel III Standards Published by the Basel Comm. (2017), <http://www.bis.org/press/p170425.htm> (updating readers of the adoption status of Basel III standards for each BCBS member jurisdiction as of the end of March 2017). As of the Spring 2017 Basel Committee on Banking Supervision's Basel III adoption progress report, implementation of standards, such as total loss-absorbing capacity ("TLAC") holdings are underway for member jurisdictions. Press Release, Bank for Int'l Settlements, Twelfth Progress Report on Adoption of Basel III Standards Published by the Basel Comm. (2017), <http://www.bis.org/press/p170425.htm>.

41. Dodd-Frank § 115, 12 U.S.C. § 5325 (2016) (requiring the Financial Stability Oversight Council to submit a report to Congress regarding a study on contingent capital requirements for nonbank financial companies and large bank holding companies).

42. *See* A. PATRICK DOYLE, ET AL., ARNOLD & PORTER LLP, ADVISORY: DODD-FRANK ACT MANDATES STRICTER CAPITAL REQUIREMENTS FOR FINANCIAL INSTITUTIONS 1 (2010), https://files.arnoldporter.com/advisory—dodd-frank_act_mandates_stricter_capital_requirements_071610.pdf (“[The Dodd-Frank Act] imposes a number of more stringent capital requirements. . .”).

43. *Id.* The provision including imposition of more stringent capital requirements is set forth in the “Collins Amendment” of the Dodd-Frank Act. *Id.*

44. Kevin F. Barnard & Alan W. Avery, *Basel III v. Dodd-Frank: What Does It Mean for US Banks*, WHO'S WHO LEGAL (Jan. 2011), <http://whoswholegal.com/news/features/>

however, Dodd-Frank commissioned a study of the bonds, to be commandeered by the Financial Stability Oversight Council (“FSOC”).⁴⁵ While its findings were overall inconclusive on CoCo bonds, FSOC placed emphasis on its concerns over the trigger mechanism of CoCo bond instruments in its final 2012 report.⁴⁶

Nevertheless, while there had been discussion between the Federal Reserve and the U.S. banking industry to introduce contingent capital in U.S. banks in the wake of Basel III, some interpreted a 2011 speech by then Treasury Secretary Timothy Geithner as a sign that the United States was no longer seriously considering a contingent convertible requirement.⁴⁷ Moreover, the Federal Reserve’s June 2013 final rules implementing Basel III in the United States require that the paid-in amount of any instrument must classify as equity⁴⁸ to qualify as

article/28829/basel-iii-v-dodd-frank-does-mean-us-banks/ (highlighting the differences between Basel III and Dodd-Frank Act in capital ratio requirements of banks and how they conflict in implementation).

45. Dodd-Frank §115, 12 U.S.C. § 5325(c) (2016) (setting out specifically what the Dodd-Frank Act requires the Financial Stability Oversight Council to study regarding contingent capital requirements, such as an evaluation of the amounts of contingent capital that should be required of institutions).

46. See FIN. STABILITY OVERSIGHT COUNCIL, REPORT TO CONGRESS ON STUDY OF A CONTINGENT CAPITAL REQUIREMENT FOR CERTAIN NONBANK FINANCIAL COMPANIES AND BANK HOLDING COMPANIES 19 (2012), [https://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/Co%20co%20study\[2\].pdf](https://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/Co%20co%20study[2].pdf) (expounding on the findings of the study through a review of the types and structures of contingent capital instruments and its potential benefits and drawbacks); see also PAUL GLASSERMAN & ENRICO PEROTTI, THE UNCONVERTIBLE CoCo BONDS 6 (2017), <http://fbf.eu.eu/wp-content/uploads/2017/03/The-unconvertible-CoCo-bonds-Glasserman-Perotti-March-2017.pdf> (discussing the background of CoCo bonds and their weakness in their inability to provide going concern convertibility). “[T]here are a range of potential issues that could be associated with contingent capital instruments, depending on their structure and, in particular, the structure and timing of conversion triggers. Therefore, at this time, the Council recommends that contingent capital instruments remain an area for continued private sector innovation. The Council encourages the Federal Reserve and other financial regulators to continue to study the advantages and disadvantages of including contingent capital and bail-in instruments in their regulatory capital frameworks.” FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 46, at 19.

47. GLASSERMAN & PEROTTI, *supra* note 46, at 5; see Tim Geithner, Treasury Secretary, U.S. Dep’t of the Treasury, Remarks to the International Monetary Conference (2011), <https://www.treasury.gov/press-center/press-releases/Pages/tg1202.aspx> [hereinafter Treasury Secretary Remarks] (“[W]e do not need to impose . . . any of the three other proposed forms of additional capital – convertible, bail in, contingent capital instruments, or counter cyclical capital requirements.”).

48. As according to generally accepted accounting principles (“GAAP”). HAL S. SCOTT, CONNECTEDNESS AND CONTAGION: PROTECTING THE FINANCIAL SYSTEM FROM PANICS 191 (MIT Press, 2016) (discussing contingent capital as an alternative resolution system designed to resolve the too-big-to-fail problem without public support).

Tier 1 capital.⁴⁹ This thereby precludes contingent convertible debt from qualifying prior to conversion.⁵⁰ A large number of European and Asian banks were expected to and do issue CoCo bonds in order to meet capital requirements set above the Basel III minimums.⁵¹ However, in the United States, no banks have issued CoCo bonds to date.⁵² A major attributing reason is the likelihood of unfavorable tax treatment: CoCo bonds in the United States may be treated not as debt, but equity, and thus the interest payments would not be tax deductible.⁵³

Countries have been divided on the issue of whether contingent capital is the right tool to deal with ex ante SIFI risk-control and ex post failure containment.⁵⁴ While Europe and the United States have pushed for bank taxes as a method of correcting adverse externalities such as those arising from excessive risk taking,⁵⁵ other countries, such as Canada, vouch for contingent capital.⁵⁶ Indeed, officials have conceded

49. *Id.*

50. *Id.*

51. CADWALADER, *supra* note 37, at 1; see Paul J. Davies, *Investors Diving Into Risky Bank Bonds*, WALL ST. J. (Dec. 26, 2017), <https://www.wsj.com/articles/investors-diving-into-risky-bank-bonds-1514299178> (“[C]ontingent convertible bonds, or cocos, are mainly issued by European and Asian banks. . . .”).

52. CADWALADER, *supra* note 37, at 1.

53. See FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 46, at 7 (“An additional drawback, from the perspective of potential issuers, is that depending upon the structure of the instrument, the interest payment may not be tax deductible by the issuer, potentially resulting in the issuance of a debt instrument that is significantly more costly than typical subordinated debt.”); see also Treasury Secretary Remarks, *supra* note 47 (discussing that in the U.S., the largest firms will be required to hold an additional surcharge of common equity and that contingent capital will not be imposed on top of that).

54. See Viral V. Acharya et al., *Capital, Contingent Capital, and Liquidity Requirements*, REGULATING WALL STREET: THE DODD-FRANK ACT AND THE NEW ARCHITECTURE OF GLOBAL FINANCE 144 (Wiley ed., 2010) (discussing the concept of contingent capital in the wake of the 2008 financial crisis and potential limitations in its ability to curb taxpayer-funded rescuing of failing systemically important financial institutions). A primary purpose of contingent capital is to avoid regulatory bailout after failure (ex post failure). *Id.* However, the question remains on whether CoCos can control institutions’ risk-taking before the fact (ex ante risk-control). *Id.*

55. See INT’L MONETARY FUND, A FAIR AND SUBSTANTIAL CONTRIBUTION BY THE FINANCIAL SECTOR: FINAL REPORT FOR THE G-20 16 (2010), <https://www.imf.org/external/np/g20/pdf/062710b.pdf> (“Specific proposals include . . . taxes on short-term and/or foreign exchange borrowing, on high rates of return . . . and for corrective taxes related to notions of systemic risks and interconnectedness. The presumption is that receipts from these taxes would go to general revenue, although they need not equal the damage—however defined—that they seek to limit or avert.”).

56. Acharya et al., *supra* note 54, at 168.

that implementation and execution of the contingent capital approach had to be ironed out and understood before it was feasible.⁵⁷

III. AN INTRODUCTION TO THE PURPOSE AND DESIGN OF CONTINGENT CONVERTIBLE BONDS

In the aftermath of the financial crisis, banks faced pressure to satisfy regulatory capital requirements and sought ways to boost Tier 1 capital as mandated by increased regulatory requirements.⁵⁸ CoCo bonds, otherwise known as AT1s, are hybrid securities that were designed to meet this need by absorbing loss through imposing the brunt of institutional failure on the investors that have purchased the CoCo bonds.⁵⁹ The two main features of CoCo bonds is the generation of additional common equity capital to strengthen a firm's ability to absorb losses on its balance sheet and to improve incentives for management to raise capital when needed.⁶⁰ These hybrid capital securities absorb losses when the capital of the issuing bank falls below a certain level.⁶¹ Unlike a judicial or administrative restructuring proceeding, contingent capital instruments are designated in advance to convert only under a pre-defined set of contractual conditions.⁶² The event of capital falling below a certain level "triggers" the bonds where the bonds either automatically convert into equity—a debt-for-equity conversion—or the nominal value gets written off—a principal write-down.⁶³ Upon the trigger event—ideally before the institution runs too low on cash—the bonds' conversion then flips the switch so that rather than the bank owing its bondholders money, the bondholders own shares of the bank.⁶⁴

57. Acharya et al., *supra* note 54, at 168.

58. STEFAN AVDJIEV ET AL., BANK FOR INT'L SETTLEMENTS QUARTERLY REVIEW, COCOS: A PRIMER 47 (2013), http://www.euromoney.com/Media/documents/shared/euromoney/r_qt1309f.pdf ("Over time, as banks felt more pressure from markets and regulators to boost their Tier 1 capital, they started to issue CoCos with trigger levels at or above the preset minimum for satisfying the going-concern contingent capital requirement.").

59. *Id.* at 43.

60. FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 46, at 5.

61. AVDJIEV ET AL., *supra* note 58, at 43.

62. See SCOTT, *supra* note 48, at 192–93.

63. MICHAEL SCHMID, CREDIT SUISSE, INVESTING IN CONTINGENT CONVERTIBLES 9 (2014), https://www.credit-suisse.com/media/am/docs/asset_management/events/2014/fits2014-program/4-2-schmid-contingent-convertibles.pdf.

64. Williams-Grut, *supra* note 1.

This design was intended to create a prophylactic effect of heightened market discipline on CoCo bondholders so as to avoid shareholder dilution and the potential of bearing economic loss.⁶⁵ Ideally, issued CoCo bonds would have trigger levels at or above the present minimum Tier 1 capital requirement in order to satisfy the going-concern contingent capital requirement.⁶⁶ Such a design intends to incentivize banks to maintain higher ratios of true economic capital relative to its risky assets as management would raise capital in a timely manner such that dilutive conversions never occur.⁶⁷ The implication and design is that “too big to fail” financial institutions would not be permitted to approach the point of insolvency.⁶⁸

In the capital structure of a bank, AT1 CoCo bonds are junior bank debt, sitting directly ahead of common equity capital and ranked below subordinated debt.⁶⁹ As “junior” debt, CoCo bonds are not as secure as other bonds issued and would be of a lower priority in case of a default.⁷⁰ However, CoCo bonds make up for their risky position in the capital structure in providing a significant return advantage—their returns, especially from more developed market issuers, by and large trump those on other forms of bank debt.⁷¹ This is the instrument’s

65. FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 46, at 7 (“[The] potential for the contingent capital instrument holders to bear economic loss, along with the accompanying dilution of the existing common equity holders, could provide incentive to both existing holders of common shares and holders of contingent capital instruments to more closely monitor the risk and financial performance of the issuer, thus providing additional market discipline on the issuer’s behavior.”).

66. Jeffery, *supra* note 2.

67. See Charles W. Calomiris & Richard J. Herring, *How to Design a Contingent Convertible Debt Requirement That Helps Solve Our Too-Big-To-Fail Problem*, 25 J. APPLIED CORP. FIN. 39, 44–45 (2013) (arguing that CoCos would prevent banks from reaching insolvency by recapitalizing long before that point and would resolve the “too-big-to-fail” problem).

68. See *id.* (discussing the efficacy of CoCo designs as providing strong incentive to strengthen risk management and take remedial measures to raise equity well before they face a substantial risk of insolvency).

69. *Cocos & AT1’s – What, Who and Where?*, MACRO & CREDIT MARKET VIEWS BLOG (Feb. 19, 2016) <http://creditmacro.blogspot.com/2016/02/cocos-at1s-what-who-and-where.html> (illustrating where CoCo bonds/AT1s sit in the capital structure and the four types of bond structures and the different outcomes for investors should the banks’ capital fall below a pre-defined trigger level).

70. Jenny Cosgrave, *Do We Need to Worry About CoCo Bonds?*, CNBC (Feb. 10, 2016), <https://www.cnbc.com/2016/02/10/do-we-need-to-worry-about-coco-bonds.html> (discussing the volatility and liquidity concerns surrounding CoCo bonds by highlighting Deutsche Bank’s ability to make coupon payments).

71. *Id.*

selling point, making up for its comparatively high risk.⁷² To illustrate the high-yield characteristic of CoCo bonds, the expected return on CoCo bonds is currently 5% to 7%, whereas European high-yield bonds are offering approximately 4%.⁷³ Unsurprisingly, CoCo bonds are the riskiest debt issued by banks.⁷⁴ Indeed, only a quarter of the CoCo bonds in the Eurozone market are judged investment-grade by credit agency Fitch.⁷⁵ Accordingly, retail investors are restricted from involvement in certain jurisdictions, such as in the United Kingdom.⁷⁶

The pricing of CoCo bonds in primary markets is consistent with the proximity to the trigger point.⁷⁷ The lower the trigger point, the lower the loss-absorbing capacity the CoCo bonds will have.⁷⁸ Consequently, the CoCo bonds with low triggers will be less expensive to issue.⁷⁹ However, due to regulatory pressures, banks began issuing CoCo bonds with trigger levels at or above the present minimum for satisfying the going-concern contingent capital requirement.⁸⁰ As a result, the volume of CoCo bonds classified as AT1 capital has increased since the start of 2012.⁸¹ In more recent years, however, the largest category of CoCo bonds issued by trigger level falls within conversion at the point of non-viability (“PONV”), which is effectively gone-concern capital.⁸²

72. SCHMID, *supra* note 63, at 13.

73. SCHMID, *supra* note 63, at 13.

74. Thomas Hale & Dan McCrum, *Why CoCo Bonds are Worrying Investors*, FIN. TIMES (Feb. 9, 2016), <https://www.ft.com/content/b75b285c-cf07-11e5-92a1-c5e23ef99c77> (examining reasons why investors might be worried about buying CoCos, such as issuers' missing coupon payments and concern regarding receiving initial investments back if regulators are prohibiting banks from issuing new bonds in order to pay back investors).

75. *Id.*

76. *Id.* The Financial Conduct Authority formalized its ban on the sale of CoCos to retail investors, making permanent the temporary ban it had set in place in October 2014. In its policy statement released in June 2015 announcing the decision, the FCA highlighted the complex terms of the bonds, such as issuer's discretion on conversion, timing, effect on pricing, currency exchange rate, and conversion rate as risk factors that it found challenging for investors to model and price. Matthew Jeynes, *FCA Confirms Retail Distribution Ban on CoCo Bonds*, FTADVISER (June 12, 2015), <https://www.ftadviser.com/2015/06/12/investments/fixed-income/fca-confirms-retail-distribution-ban-on-coco-bonds-AGzo0OTRGQhJpiOUKZ5t7L/article.html>.

77. AVDJIEV ET AL., *supra* note 58, at 51.

78. AVDJIEV ET AL., *supra* note 58, at 51.

79. AVDJIEV ET AL., *supra* note 58, at 51–52.

80. AVDJIEV ET AL., *supra* note 58, at 47.

81. AVDJIEV ET AL., *supra* note 58, at 47.

82. GLASSERMAN & PEROTI, *supra* note 46, at 5. In other words, when conversion is at a point of gone-concern capital, the institution is either at or nearing liquidation state, whereas conversion at a going concern rate means the trigger point is pre-set at a higher capital ratio

By the same token, CoCo bond yields are mainly determined by the instrument's trigger mechanism and the loss-absorption mechanism—that is, whether loss is absorbed through a debt-to-equity conversion, or a write-down in value.⁸³ The trigger is bifurcated by whether it is a mechanical or discretionary trigger, and if mechanical, whether determination of the trigger point is accounting-based or market-based.⁸⁴ One model—the discretionary model—is favored by the Basel Committee and assigns decision-making authority in trigger conversion to the issuer's primary regulator.⁸⁵ This means that while the convertibility is subject to contract, the regulator ultimately has the discretion to determine the conditions triggering the convertibility upon the regulator finding that the issuer's financial condition is unsatisfactory,⁸⁶ or trigger the write-down, effectively declaring the CoCo bonds at a PONV.⁸⁷ Another model bases trigger conversion on the adequacy of the issuer's capital ratios.⁸⁸ A third model takes into account market-based variables, such as the issuer's share price and credit spreads, to determine when the instruments convert.⁸⁹ The latter two models are mechanical-based trigger models, distinguishable from the first, discretion-based model described.⁹⁰ The choice of trigger can be divided along several dimensions: high trigger (going concern) or low

such that liquidation is not a significant likelihood in the near future. See GLASSERMAN & PEROTTI, *supra* note 46, at 5 (“By far the largest category, measured either in dollars or by number of banks issuing, specifies conversion at the point of non-viability, which is decidedly gone-concern capital.”); see also *Business Dictionary*, BUSINESSDICTIONARY.COM, <http://www.businessdictionary.com/definition/gone-concern.html> (last visited Dec. 30, 2017) (defining “gone concern”).

83. AVDJIEV ET AL., *supra* note 58, at 51–52.

84. GLASSERMAN & PEROTTI, *supra* note 46, at 5.

85. SCOTT, *supra* note 48, at 192.

86. SCOTT, *supra* note 48, at 192–93. Discretionary triggers are otherwise known as “point of non-viability” triggers. In particular, supervisors can activate the loss absorption mechanism if they believe that such action is necessary to prevent the CoCo-issuing bank's insolvency. EUROPEAN PARLIAMENT, BRIEFING: CONTINGENT CONVERTIBLE SECURITIES, IS A STORM BREWING? 4 (May 2016), [http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/582011/EPRS_BRI\(2016\)582011_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/582011/EPRS_BRI(2016)582011_EN.pdf) (summarizing the history of CoCos, their main characteristics, pros and cons, and recent developments in a briefing by the European Parliamentary Research Service).

87. See BONDADVISER, *supra* note 2 (describing that the European Central Bank deemed Banco Popular likely to fail, triggering the point-of-non-viability, writing down all existing shares, and canceling all AT1 instruments).

88. SCOTT, *supra* note 48, at 193.

89. SCOTT, *supra* note 48, at 193.

90. SCOTT, *supra* note 48, at 193.

trigger (gone concern).⁹¹ Moreover, the loss absorption mechanism is characterized by either a conversion to equity or a principal write-down as aforementioned.⁹² In the case of CoCo bonds that get written down, some CoCo bonds may be written down permanently, while others get written down temporarily—to be revived if the bank's capital ratio rises again.⁹³ If temporary, the write down is generally reversed if the issuer's financial condition improves.⁹⁴ Further, the write-off may be complete or partial.⁹⁵ If partial, only the amount needed to restore the issuing bank's regulatory capital ratio above the trigger point converts is written down.⁹⁶

Therefore, CoCo bonds are multi-dimensional instruments, in which all aspects of the instruments' trigger design factor into the price of CoCo bonds as well as what and how much of a yield investors receive from CoCo bonds.⁹⁷ This is just one area of concern surrounding the effectiveness of CoCo bonds in absorbing loss and delivering on return to investors.

Finally, CoCo bonds have no maturity date,⁹⁸ meaning that an investor may never get his or her money back.⁹⁹ Thus, the bonds are perpetual, although issuing banks do have the right to exercise a call option to repurchase the bonds, but not without prior supervisory approval, and only after a minimum of five years.¹⁰⁰ Any repayment of

91. GLASSERMAN & PEROTTI, *supra* note 46, at 5.

92. AVDJIEV ET AL., *supra* note 58, at 46.

93. David Turner, *Yield-Hungry Investors Take Their Chances with CoCo Bonds*, INSTITUTIONAL INV'OR (Nov. 19, 2014), <http://www.institutionalinvestor.com/article/3402054/banking-and-capital-markets-banking/yield-hungry-investors-take-their-chances-with-coco-bonds.html#.WbmJUoqQyRs> (discussing the high-risk nature of CoCos and the investor uncertainty due to regulators' unpredictable discretionary actions to hike risk weights of assets).

94. FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 46, at 7.

95. SCHMID, *supra* note 63, at 9.

96. FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 46, at 8. Alternatively, the terms of the instrument could specify a fixed amount of a conversion, write off, or write down upon activation of the trigger. *Id.*

97. AVDJIEV ET AL., *supra* note 58, at 51–52 (discussing different determinants of CoCo pricing).

98. Wolf Richter, *Deutsche Bank's CoCo Bonds Speak of Fear of the Worst*, WOLF STREET, Sept. 16, 2016, <https://wolfstreet.com/2016/09/16/deutsche-bank-unglued-again-co-co-bonds-shares-plunge/> (explaining the impact of regulatory fines imposed on Deutsche Bank in 2016 on Deutsche's CoCo bondholders and how the panic shed light on characteristics of the hybrid debt instrument).

99. *Id.*

100. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 16.

principal also requires supervisory approval.¹⁰¹ Furthermore, unlike typical bonds, annual coupon payments—or interest payments—are contingent on the bank’s ability to maintain its capital above required levels and if its capital should fall below that threshold, the bank can exercise the option not to make the coupon payment.¹⁰² As such, coupon payments are discretionary, and once skipped, do not get repaid at a later date.¹⁰³ This is where the “bail in” aspect kicks in: investors can potentially “absorb” losses via missed coupon payments, and if conversion is triggered, they become shareholders by virtue of a debt-to-equity conversion.¹⁰⁴ Otherwise, the CoCo bonds are canceled entirely if regulators deem the bank is failing.¹⁰⁵

IV. BANCO POPULAR’S WIPEOUT AND AN ANALYSIS OF THE EFFECTIVENESS OF CoCo BONDS IN ABSORBING LOSS AND RESCUING FAILING INSTITUTIONS

A. *Inadequacy of a Conversion*

The effectiveness of CoCo bonds in saving an institution from failure appears to be thwarted by the instrument’s conversion capacity.¹⁰⁶ Once triggered, a conversion of AT1 capital into equity may not be adequate.¹⁰⁷ Total regulatory capital consists of Tier 1 capital, which

101. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 16.

102. Richter, *supra* note 98 (“When CoCos plunge, it’s a sign investors think those thresholds are approaching, that the bank will have to raise more capital by issuing shares and/or CoCos. But with both plunging, raising capital that way will be prohibitively expensive. So skipping CoCo coupon payments might be the next step to avoid, or delay, falling over the bank. That’s what the market is afraid of.”).

103. *See* BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 16 (stipulating that the bank must have full discretion at all times to cancel distributions and payments, which means the payments are extinguished such that banks are not required to make distributions and payments in kind).

104. Richter, *supra* note 98.

105. Richter, *supra* note 98.

106. *See* Acharya et al., *supra* note 54, at 166 (“[C]ontingent capital is not adequate even for containment of ex post distress in all contingencies, especially in the form it is proposed whereby there will be a one-time conversion of part of a firm’s debt into equity. If instead, and depending on how deteriorated the conditions are, there was a requirement of progressive conversion of debt into equity all the way down the capital structure of financial firms, then indeed all firm losses could eventually be passed on to creditors.”).

107. *See* Acharya et al., *supra* note 54, at 166 (articulating the numerous shortfalls associated with CoCo bond conversion).

includes CET1 and AT1, as well as Tier 2 capital.¹⁰⁸ The Basel Committee describes Tier 1 capital as “going concern” capital—capital that takes the first and proportionately greatest share of any losses as they occur.¹⁰⁹ Tier 2, on the other hand, is the supplementary component of bank capital and provides loss absorption on a “gone concern.”¹¹⁰ Thus, AT1 comprises of only one component in a bank’s capital structure.¹¹¹ As such, the amounts of contingent capital are not sufficiently large to rescue a bank that is truly at the brink of insolvency, as the converted CoCo bonds present only a sliver of a firm’s capital reserves.¹¹²

Instead, a progressive conversion of debt into equity all the way down the capital structure of the financial institution is more plausible in absorbing the firm’s losses to be passed on to creditors.¹¹³ Since AT1 capital is made up of subordinated and perpetual Tier 1 capital instruments issued by a bank that are not included in CET1, the contingent conversion would thus only result in converted equity that falls within this category of an entire firm’s total capital.¹¹⁴ However, even if CoCo bonds were issued with the capacity to convert beyond a designated portion of a financial institution’s debt capital structure,¹¹⁵ CoCo bonds are still limited in the amount of support they can provide to an ailing firm to the value of CoCo bonds that are actually issued and outstanding.¹¹⁶ Therefore, CoCo bonds, as issued in their current form, will probably not be effective or significantly prevent a bank from failing.¹¹⁷

108. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 12.

109. BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 14.

110. CADWALADER, *supra* note 37, at 3; *See also* Tier 2 Capital, INVESTOPEDIA, <http://www.investopedia.com/terms/t/tier2capital.asp> (last visited Sept. 17, 2017) (defining Tier 2 capital).

111. Jeffery, *supra* note 2.

112. *See* Jeffery, *supra* note 2 (explaining that contingent capital is comprised of only AT1 capital and that total regulatory capital consists of not just Tier 1 capital, but also Tier 2 capital).

113. *See* Acharya et al., *supra* note 54, at 166 (“[C]ontingent capital is not adequate even for containment of ex post distress in all contingencies, especially in the form it is proposed whereby there will be a one-time conversion of part of a firm’s debt into equity.”).

114. *See* Jeffery, *supra* note 2 (describing what comprises AT1 capital).

115. *See* SCOTT, *supra* note 48, at 195.

116. *See* SCOTT, *supra* note 48, at 195.

117. *See* Acharya et al., *supra* note 54, at 166 (arguing that a one-time conversion would be ineffective for containment of distress).

B. *Flaws to the Trigger Point*

Second, the trigger design—arguably the most essential element as it kick-starts the CoCo bond’s converting function—varies greatly among CoCo bonds issued.¹¹⁸ Whether the contingent capital will convert in times of financial stress turns on the choice of the capital-ratio trigger: the triggering event defining the point when the CoCo bonds will convert from debt into equity, or alternatively, when the nominal value, or principal, is written down.¹¹⁹

The capital-ratio as related to CoCo bond triggers is the comparison between a bank’s core equity capital and its total risk-weighted assets.¹²⁰ Under the requirements of Basel III, Tier 1 capital instruments must provide for a “going-concern” write-down of principal or conversion into equity at a pre-specified trigger point.¹²¹ Yet, to date, out of the distribution of Tier 1 CoCo bonds by trigger level, the largest category—more than 95% of CoCo bonds issued—fall at a conversion point of non-viability, according to Moody’s database.¹²² This is alarming as an instrument converting at a PONV trigger point is effectively bail-in debt, meaning the institution is at or near a point of insolvency and bondholders will have to take a loss on their holdings.¹²³ The smallest category of CoCo bonds issued fall within conversion at a high trigger—a Tier 1 capital ratio of 7% or higher.¹²⁴ This suggests that the bulk of presently issued CoCo bonds will not fulfill their prophylactic role in preventing risk ahead of default and creates an impression of a

118. See AVDJIEV ET AL., *supra* note 58, at 44 (discussing that CoCos can have one or more triggers and describing how the loss absorption of the CoCo can be activated once any trigger is breached).

119. GLASSERMAN & PEROTTI, *supra* note 46, at 5.

120. See BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 12 (defining capital and components of capital and requiring that specific components of an institution’s capital be a certain percentage of risk-weighted assets at all times).

121. See BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 12, 17 (defining going-concern Tier 1 Capital as including AT1 capital and that the instruments must absorb loss upon breaching a pre-specified trigger point); see also EIGER ET AL., *supra* note 3 (elaborating on the Basel III framework and its criteria that the Tier 1 instruments must be capable of principal loss absorption at a pre-specified trigger point).

122. GLASSERMAN & PEROTTI, *supra* note 46, at 5.

123. GLASSERMAN & PEROTTI, *supra* note 46, at 5.

124. GLASSERMAN & PEROTTI, *supra* note 46, at 5. Moody’s CoCo Monitor shows 19 banks issue CoCos at a higher trigger level of 7% -8%, 37 banks issue CoCos at a trigger level of 4.5%-5.5%, and finally, 109 banks issue CoCos that trigger at the PONV (Note: no U.S. banks issue CoCos). GLASSERMAN & PEROTTI, *supra* note 46, at 5.

general failure of the equity component of CoCo bond debt by way of going concern conversion.¹²⁵ Higher, not lower, CoCo bond triggers are ideal as higher triggers while the institution is still a going-concern would reduce bank risk-taking as the capital instrument is still viable.¹²⁶ Thus, higher triggers provide additional equity capital at earlier intervention points.¹²⁷ On the other hand, a low trigger, such as the trigger point with which 95% of today's CoCo bonds are issued as mentioned above, is a gone concern trigger, meaning the CoCo bonds convert at the PONV.¹²⁸ Thus, such low trigger CoCo bonds have lower loss-absorbing capacity.¹²⁹

The high proportion of low-trigger CoCo bonds to going concern CoCo bonds may be attributable to the fact that authorities are generally reluctant to trigger conversion.¹³⁰ An instrument with a discretionary trigger is less likely to convert, as discretionary triggers give the bank's national regulator supervisory discretion to determine when the issuer has reached the PONV.¹³¹ Indeed, issuance of CoCo bonds with a discretionary trigger, rather than a mechanical trigger, are more commonplace.¹³² Currently, worldwide issuance with discretionary triggers exceeds issuance with strictly mechanical triggers.¹³³ This trend weakens the original purpose of CoCo bonds as the greater portion of these instruments being issued according to discretion-based triggers means there are likely more "unconvertible" CoCo bonds than convertible, even in the event of banks hitting low capital ratios.¹³⁴ Indeed, a common investor concern regarding discretionary triggers is the

125. GLASSERMAN & PEROTTI, *supra* note 46, at 5.

126. See AVDJIEV ET AL., *supra* note 58, at 51 ("All else the same, CoCos with relatively low triggers offer more favourable terms to holders of CoCos than to equity holders since the trigger is less likely to be breached and the former group is less likely to absorb losses. By contrast . . . equity holders prefer high-trigger CoCos since they are more likely to lead to early loss absorption by holders of CoCos.").

127. NERA ECONOMIC CONSULTING, UNDERSTANDING CONTINGENT CONVERTIBLE SECURITIES: A PRIMER 2 (2016), http://www.nera.com/content/dam/nera/publications/2016/Understanding_Contingent_Convertible_Securities-A_Primer.pdf (explaining what CoCos are, their product characteristics, issuance to date, credit ratings, and recent developments).

128. SCHMID, *supra* note 63, at 7.

129. AVDJIEV ET AL., *supra* note 58, at 47.

130. GLASSERMAN & PEROTTI, *supra* note 46, at 6.

131. NERA ECONOMIC CONSULTING, *supra* note 127, at 2.

132. GLASSERMAN & PEROTTI, *supra* note 46, at 6.

133. GLASSERMAN & PEROTTI, *supra* note 46, at 6.

134. GLASSERMAN & PEROTTI, *supra* note 46, at 6.

difficulty in predicting the regulator's use of its discretion.¹³⁵ Certainly, regulatory discretion is always potentially subject to insufficient information, ineffective monitoring and political pressures.¹³⁶

To investors, safer bonds are characterized by a greater distance between the CoCo bond's trigger point and a bank's threshold level in CET1 ratio.¹³⁷ The trigger should ideally be set at a high enough capital ratio level so that in a trigger event, the issuing bank is still fully viable.¹³⁸ However, under a discretionary trigger, the bank's national regulator will call the trigger only upon its determination that the issuing bank has reached the PONV.¹³⁹ Therefore, there is a strong argument for trigger levels to be determined by a mechanical trigger, rather than by supervisory discretion.¹⁴⁰ Yet, the real difference between mechanical and discretionary triggers may not be significant, as a mechanical trigger still requires an explicit agreement of a bank's regulator, rendering the automatic trigger a *de facto* discretionary regulatory decision.¹⁴¹ Practically speaking, then, the two types of triggers are indistinguishable, as automatic conversion can only occur once a bank admits to failing to satisfy the minimal capital ratio requirement.¹⁴²

Even assuming the mechanical trigger approach is pursued, calculating the trigger point of capital requires either an accounting-based or a market-based approach.¹⁴³ A market-based trigger takes into account

135. NERA ECONOMIC CONSULTING, *supra* note 127, at 2; *see* HENNING HESSE, COCO BONDS AND RISK: THE MARKET VIEW 2 (2016) (“[I]nvestors value CoCo bonds higher when the distance to the trigger is high. This shows two things: First, investors are well aware of one of the key risk in CoCo bonds. Second, and perhaps more importantly, it supports the view that investors think that an automatic trigger event is plausible, rather than thinking that a CoCo bond will only be triggered on regulator’s discretion (for example in a bail-in).”).

136. Suresh Sundaresan & Zhenyu Wang; *On the Design of Contingent Capital with a Market Trigger*, 70 J. FIN. 881, 883 (discussing the controversial debate over the proper design of the trigger component of contingent convertible bonds, namely, whether triggers should be determined by accounting ratios, regulatory discretion, or bank management).

137. HESSE, *supra* note 135, at 7.

138. EIGER ET AL., *supra* note 30 (describing the process of setting the trigger point as a “delicate balancing act.”).

139. NERA ECONOMIC CONSULTING, *supra* note 127, at 2.

140. GLASSERMAN & PEROTTI, *supra* note 46, at 6.

141. *See* GLASSERMAN & PEROTTI, *supra* note 46, at 6 (discussing that the distinction between discretionary and automatic triggers may be tenuous in practice as automatic conversion can only occur once a bank admits it has failed to satisfy the minimum capital requirement).

142. GLASSERMAN & PEROTTI, *supra* note 46, at 6.

143. GLASSERMAN & PEROTTI, *supra* note 46, at 5.

a bank's share price or its credit default swap spread.¹⁴⁴ An accounting-based trigger is activated if the institution's capital ratio drops below a specified level.¹⁴⁵ An accounting-based trigger is a more backward looking approach and may be impractical in its ability to forecast the future evolution of the issuing bank's capital ratio.¹⁴⁶ Nevertheless, regulators have resisted including any sort of market signal in a CoCo bond conversion trigger, and to date, no issued CoCo bond utilizes a market-based trigger.¹⁴⁷ The consequence of an accounting-based trigger without consideration for market information might lead to the possibility of even a high-trigger CoCo bond converting too late to provide going-concern capital if the regulatory accounting numbers fail to reflect the bank's true financial condition.¹⁴⁸

Indeed, bank failures may unfold too quickly for the bonds' loss mechanisms to kick in.¹⁴⁹ The lag resulting from accounting-based triggers may be one explanation to Banco Popular's recent CoCo bond wipeout.¹⁵⁰ Banco Popular had a total market capitalization of €4 billion at the start of 2017, but was forcibly acquired by Spain's largest bank, Banco Santander SA—just as Popular came close to a collapse from bad property loans—for just €1 in an overnight auction after the European Central Bank ("ECB") deemed Popular "failing or likely to fail" in June 2017.¹⁵¹ This was the first time that CoCo bonds have been wiped out.¹⁵²

144. GLASSERMAN & PEROTTI, *supra* note 46, at 6.

145. NERA ECONOMIC CONSULTING, *supra* note 127, at 2.

146. NERA ECONOMIC CONSULTING, *supra* note 127, at 2.

147. GLASSERMAN & PEROTTI, *supra* note 46, at 6.

148. *See* NERA ECONOMIC CONSULTING, *supra* note 127, at 2 ("For CoCos with accounting-based triggers, it may be difficult to forecast the evolution of the issuer's capital ratio.").

149. Neil Unmack, *Going Going Gone*, REUTERS: BREAKING VIEWS, June 7, 2017, <https://www.breakingviews.com/considered-view/popular-wipeout-leaves-coco-bonds-on-drawing-board/> (explaining why Banco Popular's wipeout shows CoCo bonds' value did not provide the expected results while highlighting that contagion of investor panic was contained which might show that Popular was an isolated case).

150. *See id.* ("One conclusion could be that CoCos are redundant, as bank failures happen too quickly for the bonds' intricate loss mechanisms to swing into action.").

151. Tom Beardsworth, *How Spain's Zombie Bank Rescue Snares Bondholders: QuickTake Q&A*, BLOOMBERG, June 7, 2017, <https://www.bloomberg.com/news/articles/2017-06-07/how-spain-s-zombie-bank-rescue-snares-bondholders-quicktake-q-a> (summarizing the Santander-Banco Popular takeover and why Banco Popular's junior bonds and Tier 1 (CoCo bonds) were completely written off); *see also* BONDADVISER, *supra* note 2 ("[T]he ECB deemed Banco Popular as 'failing or likely to fail' and sold the bank to its rival Banco Santander for €1 in an overnight auction conducted by the Single Resolution Board.").

152. Beardsworth, *supra* note 151.

Specifically, Banco Popular's CoCo bonds were wiped out before they even triggered.¹⁵³ Regulators had deemed the bonds non-viable before reaching the trigger point.¹⁵⁴ Nonetheless, before news of the Santander takeover, Popular's CoCo bonds—a total of €1.25 billion worth of AT1 bonds—were still trading at around 50% of face value, suggesting a high probability of loss, but still not at the point of a wipeout.¹⁵⁵ Further, the bonds issued by Popular consisted of €750 million of CoCo bonds that were due to be converted into equity when its CET1 ratio dropped below 7%, and another €500 million that would convert at 5.125%.¹⁵⁶ Thus, Popular issued CoCo bonds with patently conservative, Basel III-compliant trigger points, and yet their non-viability before reaching the trigger points indicated a lag in the instruments' ability to react to institutional failure in a timely manner.¹⁵⁷ Due to Popular's lack of liquidity and inability to meet short term obligations, ECB stepped in and called for the trigger of the bonds as at a PONV.¹⁵⁸

Therefore, Popular demonstrates that a financial institution's reported capital levels are more ambiguous than useful for investors.¹⁵⁹ Bank failures are typically attributable to a sudden shortage of liquidity rather than capital.¹⁶⁰ Indeed, despite what the reported CET1 ratios for Popular may have been prior to the Santander acquisition, some models suggest that Popular's *real* CET1 at the time of its resolution was negative 2%, as implied by the write-downs made by Santander.¹⁶¹ Thus, Popular could serve as a cautionary tale that when a bank faces crises, its capital levels are not only misleading in providing a sense of security, but have minimal utility for investors.¹⁶² Popular demonstrated that while its

153. Unmack, *supra* note 149.

154. Unmack, *supra* note 149.

155. Unmack, *supra* note 149.

156. Matei Rosca, *CoCo Calculations Change as Flops Bring Bank Risks to Forefront*, S&P GLOBAL, Aug. 3, 2017 (discussing that the outcome of CoCo bonds by way of Banco Popular and BremerLB have shown them to be riskier than analysts have perceived).

157. See Unmack, *supra* note 149 (“The Spanish lender’s failure and rescue by rival Santander did not provide the expected test for bonds which convert into equity under stress: the securities were wiped out before they could be triggered.”).

158. BONDADVISER, *supra* note 2.

159. Rosca, *supra* note 156.

160. Unmack, *supra* note 149.

161. Rosca, *supra* note 156.

162. Rosca, *supra* note 156.

market capitalization indicated value to investors,¹⁶³ it in reality encountered a liquidity crisis and subsequently could not pay off the debt instruments.¹⁶⁴

More importantly, Popular's wipeout is revealing of the unpredictable nature of discretionary triggers.¹⁶⁵ Popular's issues stemmed from its heaping pool of nonperforming loans made on the eve of a housing crash, which took up a large portion of its capital buffers.¹⁶⁶ This led to the lack of liquidity which caused ECB to declare the bonds non-viable, effectively canceling them.¹⁶⁷ Yet, up to that point, regulators did not instruct it to stop making payments on its CoCo bonds despite having broad discretion and in light of the bank nearing insolvency.¹⁶⁸ Fear of triggering runs and causing sudden shortages of liquidity are likely to make executives and regulators apprehensive of taking any sort of action that might undermine confidence, including canceling coupon payments.¹⁶⁹ As it happens, regulators, in facilitating the Popular acquisition, completely bypassed the pre-determined trigger points of 7% and 5.125%,¹⁷⁰ which were contractually set, for Popular's bonds in order to write off the bonds completely.¹⁷¹ With no warning and not a single coupon payment missed, bondholders and investors were arguably blind-

163. See Rosca, *supra* note 156 ("As Popular . . . demonstrated, a bank may have an adequate capital ratio but still encounter a liquidity crunch that means it cannot pay the debt.").

164. Rosca, *supra* note 156.

165. See Unmack, *supra* note 149 (discussing that regulators deemed Popular non-viable before any of the trigger points in the CoCo bonds were reached); see also NERA ECONOMIC CONSULTING, *supra* note 127, at 2 (explaining that it may be difficult to predict regulators' use of its discretion in triggering the CoCo bonds).

166. Lisa Abramowicz, *The Untested \$181 Billion Bank Safety Net*, BLOOMBERG QUICKTAKE, June 6, 2017, <https://www.bloomberg.com/gadfly/articles/2017-06-06/banco-popular-could-use-a-little-help-from-its-cocos> (describing Banco Popular as an idiosyncratic case and the arising uncertainties for a \$181 billion pool of contingent convertible debt globally).

167. Unmack, *supra* note 149.

168. Abramowicz, *supra* note 166; see also NERA ECONOMIC CONSULTING, *supra* note 127, at 2 ("[E]ven when an issuer is able and willing to make interest payments on AT1 CoCos, it could be prevented from doing so by the regulator.").

169. Unmack, *supra* note 149.

170. Rosca, *supra* note 156; JOHN KRIZ & JOE URCIUOLI, SPECTRUM ASSET MANAGEMENT, *BANCO POPULAR POST MORTEM: IMPLICATIONS FOR THE AT1 MARKET* (2017), <https://www.samipfd.com/935220.pdf>.

171. See BONDADVISER, *supra* note 1 ("ECB's action stemmed from Popular's lack of liquidity (i.e. inability to meet short term obligations) and hence, the Point Of Non-Viability (PONV) was triggered. As a result, all existing shares (Common Equity Tier 1) and Additional Tier 1 (AT1) instruments were cancelled.").

sided, literally taking a loss overnight.¹⁷² Given the unpredictability of regulatory action and other previously mentioned factors such as political pressures,¹⁷³ bonds such as those of Popular's will continue to hold an element of uncertainty and volatility.

Nonetheless, given the attenuated difference between mechanical and discretionary triggers and the fact that they are *de facto* indistinguishable, the search for a more dependable type of trigger is likely futile and highlights an area of ambiguity in CoCo bonds that should not be ignored.¹⁷⁴

C. Systemic Contagion

Even if CoCo bonds converted at its pre-specified trigger points without regulatory action—before a bank's true capital ratio renders the bonds non-viable—conversion of the instruments may create incidental damage aside from saving a failing institution.¹⁷⁵ The actual act of conversion, once triggered, could spark or intensify contagion as existing creditors and potential investors might interpret the conversion of contingent capital into equity in one institution as a transmission signal of fatal distress for their own institutions or for the financial system as a whole.¹⁷⁶ Indeed, conversion of an institution's CoCo bonds signals to depositors that the institution's asset quality has deteriorated.¹⁷⁷ After all,

172. Beardsworth, *supra* note 151.

173. Analysts commented that authorities' actions in stepping in to wind down Popular and safeguard its assets gives the eurozone authorities new credibility after questions were raised during a tortuous struggle to clean up Italy's troubled banks. In June 2017, an agreement to rescue Italian Monte dei Paschi di Siena bank came about, after close to 18 months of discussion over ways to restructure and bail out Italy's weakest banks, during which Bank of Italy governor criticized European banking authorities for "decision making processes relatively incompatible with rapid intervention" and lack of effective coordination. Tobias Buck, *Santander Takes Over 'Failing' Rival Banco Popular After EU Steps In*, FIN. TIMES, June 7, 2017, <https://www.ft.com/content/4cf8a400-4b4b-11e7-a3f4-c742b9791d43>; see Alex Barker, *Brussels and Rome Seal Rescue Deal for Monte dei Paschi*, FIN. TIMES, June 1, 2017, <https://www.ft.com/content/3c6e3cb8-46ae-11e7-8519-9f94ee97d996> (describing the agreement to rescue Monte dei Paschi di Siena bank after drawn-out discussions regarding the restructuring of the Italian bank, which includes both investor bail-in and injection of capital using public funds approved by the EU).

174. GLASSERMAN & PEROTTI, *supra* note 46, at 6 (discussing that the distinction between discretionary and automatic triggers is tenuous in practice).

175. Smith, *supra* note 10.

176. SCOTT, *supra* note 48, at 194.

177. STEPHANIE CHAN & SWEDER VAN WIJNBERGEN, *COCOS, CONTAGION AND SYSTEMIC RISK 2* (2014), <https://papers.tinbergen.nl/14110.pdf> (analyzing how CoCo conversion leads to higher systemic risk).

these AT1 bonds should ideally convert only when the bank's capital ratio hits a certain point ahead of default.¹⁷⁸

However, the aftermath of the Popular trauma may have eased concern that investors would panic when a CoCo bond wipes out, thus creating a domino effect of contagion to other lenders.¹⁷⁹ After the wipeout of the Popular bonds, there appeared to be little spillover into the remainder of the market.¹⁸⁰ Other AT1 securities were quickly buying and selling at higher ranges, including debt issued by other Spanish banks and one bank's CoCo bonds—those of CaixaBank—were trading at higher prices just hours after the demise of the Popular bonds.¹⁸¹ As such, the market rally after Popular's wipeout signified containment of post-wipeout “contagion.”¹⁸² Some argue that this was an indication of healthy CoCo bond functionality and that the lack of contagion in investor panic manifested the instrument's success.¹⁸³

Lending credence to this argument, and ignoring the fact that the bonds were completely canceled before Popular was acquired, regulators' apparent reluctance to trigger a bail-in in Popular's scenario still raises an integral question: How effective of a buffer were \$181 billion in CoCo bonds?¹⁸⁴ As long as bank assets are positively correlated, there remains the possibility of a CoCo bond conversion in one bank leading to investor panic in another bank.¹⁸⁵ As such, a CoCo bond conversion can create negative externality, leading to investor anxiety, and greater likelihood of bank runs by alarmed depositors.¹⁸⁶ Conversion inevitably signals to

178. AVDJIEV ET AL., *supra* note 57, at 46.

179. Smith, *supra* note 10.

180. Smith, *supra* note 10.

181. Smith, *supra* note 10.

182. Smith, *supra* note 10.

183. Smith, *supra* note 10.

184. Abramowicz, *supra* note 166.

185. CHAN & VAN WIJNBERGEN, *supra* note 177, at 46.

186. CHAN & VAN WIJNBERGEN, *supra* note 177, at 46. Even if a conversion has not been triggered, the Basel Committee proposal on bail-ins limits bail-in conversion to noncommon Tier I and Tier II capital instruments only. This may reduce the danger of setting off a run or spreading contagion, since short-term debt would be protected, because short-term debt is excluded from conversion being that it is not a capital instrument. However, limiting the selection of bailable instruments to Tier I and Tier II capital only, could restrict the total amount of capital potentially available to absorb losses, limiting the usefulness of bail-ins to circumstances where institutional losses do not exceed existing capital. Short-term investors who suspect that their issuer's long-term debt and common equity are insufficient to facilitate the recapitalization will expect to be impaired as well, and may run anyway. SCOTT, *supra* note 48, at 197–98.

depositors that asset quality has worsened and as a consequence, the probability of a bank run likely goes up—the opposite outcome of what CoCo bonds are designed to create.¹⁸⁷

In February of 2016, Deutsche Bank's share price saw a dramatic drop causing investors to flee the bank's bonds, heeding warnings from analysts that Deutsche Bank might not be able to afford interest payments on its CoCo bonds.¹⁸⁸ Indeed, the plunge in Deutsche Bank's share price created an adverse chain reaction amongst nervous investors, resulting in a "self-feeding cycle of falling prices."¹⁸⁹ Some argue that unlike in 2016, when there was market fear of Deutsche Bank missing its coupon payments, Banco Popular had less of a systemic reach than Deutsche Bank in the size and scope of its operations.¹⁹⁰ But Deutsche Bank should not serve as a security blanket supporting the view that Banco Popular's contagion containment is an isolated instance.¹⁹¹ In the event of an actual bank run, CoCo bonds will not satisfy systemic demand for liquidity, therefore contingent capital can never serve as a useful tool for rescuing financial institutions affected by contagion.¹⁹² As such, a mass conversion of the CoCo bonds of any significantly sized financial institution should not be taken lightly, and in addition, regulators' discretionary decisions to trigger bail-ins and continue allowance of coupon payments offers little assurance to current and potential investors that other institutions are not also undergoing financial stress.¹⁹³

187. CHAN & VAN WIJNBERGEN, *supra* note 177, at 3. In the United States, bank runs will likely not be as much of a concern due to the Federal Deposit Insurance Corporation ("FDIC"). The FDIC provides government-guaranteed deposit insurance and so depositors have no incentive to start a run on the bank when they will not suffer losses when a bank fails, provided that the bank has FDIC insurance. See BROOME & MARKHAM, *supra* note 6, at 157.

188. Tim Wallace, *German Finance Minister and Bank Chief Insist: Deutsche is 'Rock Solid'*, THE TELEGRAPH, Feb. 9, 2016, 6:31 PM, <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/12148961/German-finance-minister-and-bank-chief-insist-Deutsche-is-rock-solid.html> (explaining the market panic induced by Deutsche Bank's shares falling in price and how it has compelled bank's management to reassure investors that the bank is still stable).

189. *Id.*

190. Abramowicz, *supra* note 166.

191. See SCOTT, *supra* note 48, at 194 (discussing that conversion events might well intensify contagion).

192. SCOTT, *supra* note 48, at 194.

193. See SCOTT, *supra* note 48, at 194 ("Since contingent capital does not satisfy the systemic demand for liquidity during a run, it can never serve as a useful tool for rescuing financial institutions affected by contagion. Proponents of contingent capital instruments who appreciate this limitation acknowledge the necessity of interim liquidity facilities, organized privately or in all likelihood by a public lender of last resort to steward issuers through a period of systemic crisis."). The Deutsche AT1 incident subsided only after concerted action

D. Inherent Risks to Investors

Finally, CoCo bonds carry a great deal of inherent risk for their investors.¹⁹⁴ CoCo bonds as a hybrid debt instrument are designed to resemble equity by either automatically converting into equity or writing off its face value upon a trigger event.¹⁹⁵ Currently, there are more write-down CoCo bonds being issued than there are CoCo bonds that convert to equity, according to Moody's CoCo Monitor data.¹⁹⁶ Both forms of conversions technically reduce leverage and could thus act as a tool in reducing risk taking, but overall there is no research consensus on the merits of the two types of conversion structures as compared to each other.¹⁹⁷

In any case, the risky nature of CoCo bonds compels investors to understand the form of loss absorption the CoCo bond takes on when the trigger is reached.¹⁹⁸ Conversion into equity should, in principle, be a better choice for investors as it would offer the possibility of value from a stock investment,¹⁹⁹ whereas the value of write-down CoCo bonds goes

by the bank's management and decision to buy back its own bonds, as well as limitation of its CoCos to institutional portfolios. However, its importance should not be minimized as the cause of turmoil was uncertainty about receiving coupon payments and investors' fear that they would be holding perpetual bonds with no coupon payments forever—a possibility that lies and continues to be at the discretion of the bank or the supervisors. EUROPEAN PARLIAMENT, *supra* note 86, at 9.

194. See Beardsworth, *supra* note 151 ("Shareholders always lose when banks fail . . .").

195. GLASSERMAN & PEROTTI, *supra* note 46, at 1.

196. GLASSERMAN & PEROTTI, *supra* note 46, at 3. The issuance of write-down CoCo bonds in Europe, the U.K., and in the Asia Pacific region substantially exceeds that of convertible CoCos. GLASSERMAN & PEROTTI, *supra* note 46, at 3.

197. GLASSERMAN & PEROTTI, *supra* note 46, at 4. There is no distinction in the regulatory treatment between conversion-to-equity and writedown CoCos, although some research shows that issuing conversion-to-equity CoCos has a negative impact on issuer's credit default swap spreads, while issuing CoCos with a principal writedown has less of an impact. STEFAN AVDJIEV ET AL., COCO BOND ISSUANCE AND BANK FUNDING COSTS 35 (2015) [hereinafter COCO BOND ISSUANCE AND BANK FUNDING COSTS], https://bfi.uchicago.edu/sites/default/files/research/Bolton_CoCos%202015-06-10%2C%20v2.pdf. This is attributable to the fact that conversion to equity increases the cost of risk-taking for current shareholders and management due to equity dilution. *Id.* at 28. Aside from the impact on bank funding costs, however, there appears to be no regulatory distinction. *Id.* at 3. "Even though principal writedown contracts have different incentive effects than equity-conversion contracts, they are treated equally by regulators . . . [and] there are no theoretical analyses that compare the two conversion mechanisms." *Id.*

198. See BASEL COMM. ON BANKING SUPERVISION, *supra* note 6, at 17 (stipulating that loss-absorption must take the form of either a write-down mechanism or equity conversion).

199. See AVDJIEV ET AL., *supra* note 58, at 46 (discussing the different conversion rates for conversion-to-equity CoCo bondholders).

to zero.²⁰⁰ However, CoCo bonds converting into equity results in dilution of return for existing shareholders.²⁰¹ This may lead to stronger incentives for the financial institution to take cavalier actions in creating stronger incentives for CoCo bond investors, such as gambling through riskier, higher-return investments.²⁰² On the other hand, investors of write-down CoCo bonds would receive nothing upon reaching a trigger point, just as in the Banco Popular wipeout.²⁰³ Compared to equity conversion, write-down CoCo bonds may be less disruptive but, in any write-down scenario—whether a permanent write off or a temporary write down—the investors still could face permanent loss if the bank’s capital ratio never improves.²⁰⁴ And as Banco Popular illustrates, shareholders always lose when banks fail.²⁰⁵ Banco Popular’s total market capitalization was \$4.5 billion at the beginning of 2017 and had declined to zero by the time of its acquisition by Santander, as evidenced by the €1 purchase price.²⁰⁶ The investors in the CoCo bonds and Banco Popular’s shareholders, in consequence, received nothing.²⁰⁷ For contingent capital instruments that result in permanent write-downs after a triggering event, the write-off results in an increase in retained earnings for the issuer and always a loss for the instrument holder.²⁰⁸

Principal aside, coupon payments are another concern for CoCo bond investors. Regulators may suspend or limit coupon payments if they deem a bank’s capital to be nearing a certain threshold near or above the trigger point, thereby affecting the bond’s principal.²⁰⁹ As briefly

200. Beardsworth, *supra* note 151.

201. CoCo BOND ISSUANCE AND BANK FUNDING COSTS, *supra* note 197, at 28–29 (“Conversion to equity increases the cost of risk taking for current shareholders and management due to equity dilution.”).

202. GLASSERMAN & PEROTTL, *supra* note 46, at 4.

203. Beardsworth, *supra* note 151.

204. *See* Beardsworth, *supra* note 151 (explaining how in Banco Popular’s acquisition, bondholders received nothing as the bonds were written down completely, and Tier 2 holders—holders of junior notes—also received nothing from a conversion as Banco Popular was sold for a nominal amount).

205. Beardsworth, *supra* note 151.

206. Beardsworth, *supra* note 151.

207. Beardsworth, *supra* note 151.

208. FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 46, at 18. This is because rather than having to issue common equity as the issuing bank would do under a debt-to-equity CoCo conversion, the alternative feature of writing off the nominal value has the effect of extinguishing the issuing bank’s outstanding debt entirely. As such, the amount of loss-absorption could be equal to the full face amount of the instrument. FIN. STABILITY OVERSIGHT COUNCIL, *supra* note 46, at 18.

209. Turner, *supra* note 93.

mentioned earlier, the 2016 market scare revolving around whether Deutsche Bank would be able to pay its coupons on its CoCo bonds as it approached the threshold for required capital showcased investor confusion and frenzy arising from uncertainty over CoCo bonds.²¹⁰ As Deutsche Bank's shares plunged in late 2016, hitting a three-decade low, its €1.75 billion bond's falling price induced a panic among investors over whether Deutsche Bank would be skipping CoCo bond coupon payments.²¹¹ But even if coupon or principal payments were not missed, this is likely not a reliable indicator of an institution's safety and soundness.²¹² None of Banco Popular's AT1 bonds had incurred losses for investors, either in terms of missed principal or coupon payments.²¹³ Yet, the bonds' real price dropped to zero at the call of the authorities.²¹⁴

All in all, to absorb loss, CoCo bonds must be responsive to the health of an institution, so the coupon payments are optional and the bonds themselves are perpetual.²¹⁵ This means CoCo bonds will not mature unless the bank exercises an option, which is typically after five years.²¹⁶ While investors' early presumptions may have been that banks would almost always take up the option to redeem its CoCo bonds, regulators may not allow banks to exercise the option to redeem the bonds if its low capital ratio requires having to issue new bonds at higher costs.²¹⁷ Therefore, for investors, this means the risk of losing their initial investment in addition to missed coupon payments never really goes away.²¹⁸

210. Richter, *supra* note 98.

211. Frances Coppola, *Deutsche Bank: A Sinking Ship?*, FORBES (Sept. 27, 2016), <https://www.forbes.com/sites/francescoppola/2016/09/27/deutsche-bank-a-sinking-ship/#367d72873805> (emphasizing the impending trouble Deutsche Bank was in, leading to worries that the bank would be unable to pay its coupons or that the bonds would have to be bailed in).

212. See Smith, *supra* note 10 (discussing that while no Banco Popular CoCo bonds had ever incurred losses for investors prior to the wipeout, the bonds' real price was at one point, "zero").

213. See Smith, *supra* note 10 ("No AT1 bond has yet incurred losses for investors, either in terms of missed principal or coupon payments.").

214. Hale & McCrum, *supra* note 74.

215. Hale & McCrum, *supra* note 74.

216. Hale & McCrum, *supra* note 74.

217. Hale & McCrum, *supra* note 74.

218. See Turner, *supra* note 93 ("[I]nvestors have to rely not only on the issuer's performing well but also on the favorability of 'exogenous factors' such as a lack of 'regulatory intrusion' . . .").

Moreover, regulators' discretionary involvement creates yet another area of uncertainty and poses as an exogenous factor to investors.²¹⁹ As previously mentioned, what currently triggers a CoCo bond's conversion, whether it be a principal write-down or an equity conversion, depends on the capital ratio of the institution.²²⁰ Regulatory behavior may well affect the calculation of the institution's capital ratio.²²¹ Indeed, regulators may raise the risk weightings of assets which could effectively cut a bank's capital ratio, even if the bank's capital remains stable.²²² With this additional wild card factor for investors, the risks CoCo bonds pose to its holders render more confusion and hassle than the high-yields—if any yield at all—are worth.²²³

V. RECOMMENDATIONS

The current landscape for CoCo bonds is one without a global consensus.²²⁴ If CoCo bonds remain as an avenue to rescue failing institutions, international coordination will be required to ensure institutions have an equal competitive landscape so that regulatory arbitrage is averted.²²⁵ Reform in the trigger system may be most palpable in refining the efficacy of the CoCo bond instrument in absorbing loss.²²⁶ A rule-based system-wide trigger as opposed to an institutional-level trigger would more likely address systemic risk-taking.²²⁷ A rule-based trigger allows for anticipation, whereas a trigger event at the discretion of regulators would likely produce adverse news

219. Turner, *supra* note 93.

220. See *supra* Part IV.B.

221. Turner, *supra* note 93.

222. Turner, *supra* note 93. Regulators in recent years have increased the risk weightings of assets. Doing so will reduce a bank's capital ratio, even if a bank's capital remains stable. In 2014, regulators did just that with Danske Bank: raising the risk weights due to the Copenhagen bank's mortgage loans from 2013 cut its capital ratio by more than a percentage point. Turner, *supra* note 93.

223. See Turner, *supra* note 93 (describing the role regulators have played in the past as perceived by investors as a "sudden-death quality" and making investors wary).

224. Acharya et al., *supra* note 54, at 144.

225. Acharya et al., *supra* note 54, at 144; see INT'L SWAPS AND DERIVATIVES ASS'N, INC., *supra* note 18 (indicating that some of the most significant changes of Basel III have yet to be implemented and that there is "still some way to go.").

226. See GLASSERMAN & PEROTTI, *supra* note 46, at 4 (making note of academic research advocating for different trigger mechanisms); see also STIJN VAN NIEUWERBURGH, REWRITING FINANCIAL REGULATION 42 (2009), http://govtpolicyrecs.stern.nyu.edu/docs/wHITEPAPERS_ebook_chapter_9.pdf (advocating for a rule-based reform to the trigger system).

227. NIEUWERBURGH, *supra* note, at 43.

and an information contagion to the market, causing a downward spiral.²²⁸ Further, the required capitalization below which conversion is triggered should be measured based on market measures of equity, rather than book measures of equity.²²⁹ Accounting-based measures, as previously mentioned, often lag in reflecting the true capitalization of firms, which is the most likely explanation behind Banco Popular's wipeout.²³⁰

Until this fundamental change to the conversion trigger is made to CoCo bonds, they will continue to be exotic, impractical instruments for investors.²³¹ But most importantly, the bonds will be ineffective in rescuing troubled institutions without government or public intervention.²³²

VI. CONCLUSION

The demise of Banco Popular reveals the true characteristics of CoCo bonds when put to the test. Banco Popular's takeover was the first time the hybrid debt instruments wiped out, revealing both the bonds' ability to absorb loss as required by international regulatory standards, but not without the expense of bondholders through unpredictable loss-absorption mechanisms.²³³ The bonds demonstrated first and foremost the inadequacy of conversion to wholly rescue a bank from failure. Second, Banco Popular shed light on the complex trigger system, how

228. NIEUWERBURGH, *supra* note, at 43.

229. NIEUWERBURGH, *supra* note, at 43.

230. NIEUWERBURGH, *supra* note, at 43.

231. See Alexander Weber & Boris Groendahl, *EU Bank-Disposal Chief Koenig Defends Handling of Banco Popular*, BLOOMBERG (July 7, 2017), <https://www.bloomberg.com/news/articles/2017-07-07/bank-disposal-chief-says-italy-aid-shows-flaws-in-failure-rules> (discussing that head of the euro area's bank-failure authority rejected allegations that the agency's actions accelerated the collapse of Banco Popular and that many of Popular's junior bondholders were questioning the transparency of the resolution). Pacific Investment Management Co., Anchorage Capital Group, Algebris Investments and Ronit Capital are among investors seeking to challenge the forced write down of AT1 and Lower Tier 2 bonds. Katie Linsell & Tom Beardsworth, *Wiped-Out Banco Popular Creditors Kept Waiting for Swap Payout*, BLOOMBERG (Aug. 16, 2017), <https://www.bloomberg.com/news/articles/2017-08-16/banco-popular-swaps-payout-delay-shows-snap-in-market-overhaul> (reporting that wiped-out Banco Popular's bondholders have been delayed in their waiting and will continue to wait for payouts on credit-default swaps due to a valuation of what Popular's junior creditors may be owed before derivatives contracts insuring those notes pay out, as announced by the International Swaps & Derivatives Association's Determinations Committee).

232. BONDADVISER, *supra* note 2.

233. See *supra*, Part IV.B.

regulator discretion impacted the loss-absorption process, and the futility of any reform in the same. Further, an ex post accounting of Banco Popular's capital levels revealed the delay of the bonds' loss-absorption mechanisms.²³⁴ Finally, the optional coupon payments, permanent write-downs, unpredictable regulatory behavior, and possibility of contagion are aspects of CoCo bonds that create unavoidable, incidental risks to investors. On the other hand, the Banco Popular investors' losses can be viewed as a win for taxpayers as the sale of Banco Popular was facilitated without bail-out assistance.²³⁵

The €1 buyout, while disappointingly insignificant to investors, is arguably priceless for taxpayers that may have had to fund Banco Popular's rescue were it not for the bonds being written down. Although not quite junk bonds, CoCo bonds may have proven to be investors' trash, but as it turns out, taxpayers' treasure.

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234. See Rosca, *supra* note 156 (“[F]or a bank facing crisis, the capital level might even mislead investors by providing a false sense of security. [M]odeling suggested that Popular's real CET1 at the time of its resolution, as implied by the write-downs made by Santander, was negative 2%.”).

235. Smith, *supra* note 10.

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