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OXFORD

The Dark Side of Implementing Basel Capital Requirements: Theory, Evidence, and Policy

Aurelio Gurrea-Martínez* and Nydia Remolina**

ABSTRACT

Most financial systems around the world have imposed new capital requirements for banks in the past years. This policy seems to be justified on two powerful economic grounds. First, better capitalized banks promote financial stability by reducing banks' incentives to take risks and increasing banks' buffers against losses. Second, lack of compliance with a set of rules established by the Basel Committee may harm confidence on a country's financial system. While acknowledging these potential benefits, this paper makes the often overlooked point that the full implementation of Basel capital requirements may be socially undesirable for poorer countries seeking to develop their economies. On the one hand, higher capital requirements may reduce people's access to finance, which can be particularly problematic in emerging countries with less developed capital markets and greater problems of financial exclusion. On the other hand, the one-size-fits-all model incentivized by the Basel Committee does not take into account many emerging countries' social and economic markets, infrastructures, and priorities. In our opinion, the presence and power of certain countries in the Basel Committee makes Basel recommendations partially biased towards those problems existing in these jurisdictions. Based on the aforementioned problems, this paper suggests some policy recommendations to promote a more resilient financial system without hampering financial inclusion and economic growth.

INTRODUCTION

Capital adequacy is one of the most important and indeed seminal aspects of international banking regulation.[1] Capital requirements promote the stability of the financial system by reducing banks' incentives to take unwise risks and increasing banks' buffers

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1 Douglas W. Diamond and Raghuram G. Rajan, 'A Theory of Bank Capital', 55 Journal of Finance 2431 (2000); Hal S. Scott and Anna Gelpern, *International Finance: Transactions, Policy, and Regulation* (Minnesota: Foundation Press, 2012), 553–54; John Armour et al., *Principles of Financial Regulation* (Oxford: Oxford University Press, 2016), 290–315.

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against losses.[2] At the same time, however, capital requirements come with important, and at times underexplored, tradeoffs. Strict capital requirements may generate adverse effects on the real economy by slowing growth and people's access to financial services. Indeed, higher capital requirements for banks might slow the velocity of money in an economy, and with it the speed and extent to which it can be deployed.[3] And, perhaps most overlooked, capital requirements shape indirectly who has access to capital and on what terms. This distribution may not always be fair, or politically acceptable, for some countries and their leadership (and publics). As such, capital requirements pose unusual challenges for practitioners and stakeholders of international economic law.

This article explores this 'dark' side of capital adequacy, and it provides some alternative solutions that may achieve some of the aspirations of traditional banking regulation—that is, better capitalized banks—at a lower financial, and indeed social, cost. To do so, the article is organized as follows: Section I analyzes the origins, rationale, and evolving role of the Basel standards, especially in the context of capital requirements. Section II describes the unintended consequences of implementing high capital requirements and provides some empirical evidence of the costs generated by the implementation of Basel standards on capital adequacy. Section III discusses some policy recommendations to promote the stability of the financial system in a more efficient way than the costly rules imposed by the Basel Committee. Section IV concludes.

I. THE RISE OF CAPITAL REQUIREMENTS

A. The origins and rationale of Basel capital requirements

Before moving to law and economics, a bit of history is in order. The Basel Committee, initially known as the Committee on Banking Regulations and Supervisory Practices, was founded in 1974 by the central bank governors of the Group of Ten Countries.[4] Supervision of internationally active banks was the main focus of the Committee once founded. Nonetheless, capital adequacy soon became the cornerstone of the Committee's activities after Concordat was issued in 1975.[5] In the early 1980s, the onset

2 See the report issued by the Basel Committee on Bank Supervision regarding Basel III: http://www.bis.org/publ/bcbs189.pdf, at 1–3. In the academic literature, see Douglas W. Diamond and Raghuram G. Rajan, 'A Theory of Bank Capital', 55 Journal of Finance 2431 (2000); Anat R. Admati et al., 'Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Socially Expensive', Preprints of the Max Planck Institute for Research on Collective Goods Bonn 2013/23 (2013), at 8–15.

3 World Bank, 'Basel III and Banking Flows to Emerging Markets', 6(1) World Bank Research Digest (2011), at 3.

4 History of the Basel Committee on Banking Supervision, Bank of International Settlements. https://www.bis.org/bcbs/history.htm (visited 12 January 2019).

5 One important aim of the Committee was to close gaps in international supervisory coverage so that (i) no banking establishment would escape supervision; and (ii) supervision would be adequate and consistent across member jurisdictions. The object of the Concordat was to set out certain guidelines for co-operation between national authorities in the supervision of banks' foreign establishments, and to suggest ways of improving its efficacy. In other words, the Concordat provided the first version of principles for sharing supervisory responsibility for banks' foreign branches, subsidiaries, and joint ventures between host and parent (or home) supervisory authorities. Committee on Banking Regulations and Supervisory Practices (1975), 'Report to the Governors on the supervision of banks' foreign establishments', available at https://www.bis.org/publ/bcbs00a.pdf.

of the Latin American debt crisis[6] heightened the Committee's concerns that the capital ratios of the main international banks were deteriorating at a time of growing international risks.[7] This marked the entry of the Basel Committee into the arena of substantive rules regarding capital requirements.

United Kingdom and United States regulators led the initiative to relate capital requirements to the riskiness of assets taking into account that banks are highly leveraged by nature.[8] Regulators of other jurisdictions joined the effort and in July 1988, the Basel Committee proposed an 8 percent minimum capital ratio, which is calculated by dividing the Core Capital and Supplementary Capital[9] by risk weighting of assets.[10] Backed by the G10 Governors, Committee members resolved to halt the erosion of capital standards in their banking systems and to work towards greater convergence in the measurement of capital adequacy. This resulted in a broad consensus

6 The Latin American debt crisis was a financial crisis that originated in the early 1980s, also known as 'La Década Perdida', when Latin American countries reached a point where their foreign debt exceeded their earning power, and they were not able to repay it. As interest rates increased in the United States and in Europe in 1979, debt payments also increased, making it harder for borrowing countries to pay back their debts. Deterioration in the exchange rate with the US dollar meant that Latin American governments ended up owing tremendous quantities of their national currencies. The contraction of world trade in 1981 caused the prices of primary resources (Latin America's largest export) to fall. While the dangerous accumulation of foreign debt occurred over a number of years, the debt crisis began when the international capital markets became aware that Latin America would not be able to pay back its debt. The turning point occurred in August 1982 when Mexico announced that it would no longer be able to service its debt and requested a renegotiation of payment periods and new loans in order to fulfil its prior obligations. Because of this, most commercial banks reduced significantly or halted new lending to Latin America. As much of Latin America's loans were short term, a crisis ensued when their refinancing was refused. The banks worldwide had to somehow restructure the debts to avoid financial panic. These restructurings usually involved new loans with very strict conditions, as well as the requirement that the debtor countries accept the intervention of the International Monetary Fund (IMF). See Manuel Pastor, 'Latin America, the Debt Crisis, and the International Monetary Fund', 16(1) Latin America's Debt and the World Economic System 79 (1989) at 79–110.

7 Basel Committee on Banking Supervision, 'History of the Basel Committee'. Bank of International Settlements website, https://www.bis.org/bcbs/history.htm (visited 11 January 2019).

8 See Hal S. Scott and Anna Gelpern, *International Finance: Transactions, Policy, and Regulation* (Minnesota: Foundation Press, 2012) 540.

9 Core capital corresponds to equity and disclosed reserves and Complementary capital includes other instruments that can be accounted as capital at national discretion. Some examples of these instruments were undisclosed reserves, general provisions and even subordinated debt instruments, sometimes with some limitations. For example, subordinated debt must not exceed 50% of Tier 1, and general provisions are limited to 1.25% of risk assets. Some items such as goodwill, investments in unconsolidated financial subsidiaries and holdings of other's banks capital must be deducted from capital. See Basel Committee on Banking Supervision, 'International Convergence of Capital Measurement and Capital Standards' (1988), at 4, available at: https://www.bis.org/publ/bcbs04a.pdf.

10 As we mentioned, the idea behind the Basel Accord was to relate capital requirements to the riskiness of assets. The Committee considers that a weighted risk ratio in which capital is related to different categories of asset or off-balance-sheet exposure, weighted according to broad categories of relative riskiness, is the preferred method for assessing the capital adequacy of banks. The framework of weights has been kept as simple as possible and only five weights are used 0, 10, 20, 50, and 100%. The Basel Committee recognized there are inevitably some broad-brush judgements in deciding which weight should apply to different types of asset and the weightings should not be regarded as a substitute for commercial judgment for purposes of market pricing of the different instruments. See Basel Committee on Banking Supervision, 'International Convergence of Capital Measurement and Capital Standards' (1988), at 8–13, available at https://www.bis.org/publ/bcbs04a.pdf.

on a weighted approach to the measurement of risk, both on and off banks' balance sheets.[11]

In June 1999, the Committee issued a proposal for a new capital adequacy framework to replace the 1988 Accord. This led to the release of a revised capital framework in June 2004. This new framework, generally known as 'Basel II', comprised the following three pillars: (i) minimum capital requirements, which sought to develop and expand the standardized rules set out in the 1988 Accord; (ii) supervisory review of an institution's capital adequacy and internal assessment process; and (iii) effective use of disclosure as a lever to strengthen market discipline and encourage sound banking practices.[12] However, just when countries were implementing Basel II, the financial global crisis started and some of the basis of Basel II were highly questioned.[13] The banking sector entered the 2008 financial crisis with too much leverage and inadequate liquidity buffers. The boom of creative lending techniques that led the housing bubble, the proliferation of off exchange-traded derivatives, and the use of off-balance-sheet entities, played an important role during the crisis. The combination of Over-the-Counter (OTC) derivatives, risk-based capital requirements with the gaps of Basel I[14] and Basel II and favourable accounting rules, enabled Wall Street to create an assembly line for purchasing, packaging, and selling unregistered securities, such as subprime collateralized debt obligations, to a wide variety of institutional investors.[15] These weaknesses were accompanied by poor governance and risk management, as well as inappropriate incentive structures. The dangerous combination of these factors was demonstrated by the mispricing of credit and liquidity risks and excess credit growth.

Responding to these risk factors, the Basel Committee issued Principles for Sound Liquidity Risk Management and Supervision[16] in the same month that Lehman Brothers failed. In July 2009, the Committee issued a further package of documents to strengthen the Basel II capital framework, notably with regard to the treatment of certain complex securitization positions, off-balance sheet vehicles, and trading book exposures.[17] These enhancements were part of a broader effort to strengthen

11 See Bank of International Settlements, 'History of the Basel Committee', (2018), available at https://www.bis.org/bcbs/history.htm (visited 11 January 2019).

12 See Bank of International Settlements, 'Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework', available at https://www.bis.org/publ/bcbs107.htm (visited 11 January 2019).

13 Basel II relies on credit rating agencies—which were highly criticized during the financial crisis for the rating of credit default swaps and its conflicts of interest—for the measurement of credit risk that impact how much capital a bank needs.

14 Basel I included as capital instruments such as subordinated debt and the framework of weights for asset risk measurement was too simple for the complexity of assets of the financial services industry in the years before the global financial crisis.

15 See Richard Christopher Whalen, 'The Subprime Crisis: Cause, Effect and Consequences', Networks Financial Institute Policy Brief No. 04 (2008), available at https://ssrn.com/abstract=1113888 (visited 11 January 2019).

16 The final document is available at http://www.bis.org/publ/bcbs144.htm (visited 11 January 2019).

17 See Basel Committee on Banking Supervision, 'History of the Basel Committee'. Bank of International Settlements website, https://www.bis.org/bcbs/history.htm (visited 11 January 2019).

the regulation and supervision of internationally active banks in the light of weaknesses revealed by the financial market crisis.

In September 2010, the Group of Governors and Heads of Supervision announced higher global minimum capital standards for commercial banks.[18] This followed an agreement reached in July regarding the overall design of the capital and liquidity reform package, now referred to as 'Basel III'.[19] In November 2010, the new capital and liquidity standards were endorsed at the G20 Leaders' Summit in Seoul and subsequently agreed at the December 2010 Basel Committee meeting.[20]

The proposed standards were issued by the Committee in mid-December 2010 (and have been subsequently revised). The December 2010 versions were set out in Basel III: International framework for liquidity risk measurement, standards and monitoring, and Basel III.[21] The tightened definitions of capital, significantly higher minimum ratios, and the introduction of a macroprudential overlay represent a fundamental overhaul for banking regulation. At the same time, the Basel Committee and the G20 leaders emphasized that the reforms would be introduced in a way that does not impede the recovery of the real economy.[22]

In addition, time was needed to translate the new internationally agreed standards into national legislation. To reflect these concerns, a set of transitional arrangements for the new standards was announced in September 2010, although national authorities were free to impose higher standards and shorten transition periods where appropriate.[23] Capital regulations such as new definitions and categories of capital and capital conservation buffer were fully implemented by member jurisdictions of the

18 See Basel Committee on Banking Supervision, 'Group of Governors and Heads of Supervision Announces Higher Global Minimum Capital Standards'. Press Release (2010), available at https://www.bis.org/press/p100912.htm (visited 11 January 2019).

19 See Basel Committee on Banking Supervision, 'Results of the December 2010 Meeting of the Basel Committee on Banking Supervision'. Press release (2010), available at https://www.bis.org/press/p101201a.htm (visited 11 January 2019).

20 The Chairman of the Basel Committee on Banking Supervision, who was the President of the Netherlands Bank, described the Basel III Framework as '*a landmark achievement that will help protect financial stability and promote sustainable economic growth. The higher levels of capital, combined with a global liquidity framework, will significantly reduce the probability and severity of banking crises in the future.*' He added that '*with these reforms, the Basel Committee has delivered on the banking reform agenda for internationally active banks set out by the G20 Leaders at their Pittsburgh summit in September 2009*'. The press release is available at http://www.bis.org/press/p101216.htm (visited 11 January 2019).

21 Basel Committee on Banking Supervision, 'Basel III: International Framework for Liquidity Risk Measurement, Standards and Monitoring', available at https://www.bis.org/publ/bcbs188.htm (visited 11 January 2019). Basel Committee on Banking Supervision, 'Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems', available at https://www.bis.org/publ/bcbs189_dec2010.htm (visited 11 January 2019).

22 Basel Committee on Banking Supervision, 'Basel III Rules Text and Results of the Quantitative Impact Study Issued by the Basel Committee'. Press Release (2016), available at: https://www.bis.org/press/p101216.htm (visited 26 January 2019).

23 See Basel Committee on Banking Supervision, 'History of the Basel Committee'. Bank of International Settlements website, https://www.bis.org/bcbs/history.htm (visited 11 January 2019).

Basel Committee on Banking Supervision by the end of 2016.[24] Nonetheless, some risk-based capital standard,[25] aspects of the Basel III leverage ratio,[26] requirements for liquidity,[27] requirements for systemically important banks,[28] and the revisions to the regulatory framework for risk-weighted assets (RWAs)[29] are still being implemented.

Lastly, on December 2017 the Committee's Basel III reforms complemented the initial phase of the Basel III post-crisis standards that started being discussed in 2010.[30] The 2017 reforms sought to restore credibility in the calculation of RWAs[31] and improve the comparability of banks' capital ratios. While the first phase of Basel III focused largely on the capital side of the capital ratio calculation (the numerator), the

24 Capital instruments that no longer qualify as Common Equity Tier 1 capital or Tier 2 capital were already implemented by all member jurisdictions by 2016. Turning to the minimum capital requirements, the higher minimums for Common Equity and Tier 1 capital were phased in from 2013, and became effective at the beginning of 2015. The minimum common equity and Tier 1 requirements increased from 2% and 4% to 3.5% and 4.5%, respectively, at the beginning of 2013. The minimum common equity and Tier 1 requirements rose to 4% and 5.5%, respectively, at the beginning of 2014. The final requirements for common equity and Tier 1 capital were set at 4.5% and 6%, respectively, at the beginning of 2015. The 2.5% capital conservation buffer, comprises common equity and is in addition to the 4.5% minimum requirement.See Basel Committee on Banking Supervision, 'Fourteenth Progress Report on Adoption of the Basel Regulatory Framework' (2018), available at https://www.bis.org/bcbs/publ/d440.pdf (visited 11 January 2019).

25 Countercyclical buffer, margin requirements for non-centrally cleared derivatives, capital requirements for bank exposures to central counterparties, capital requirements for investment funds, the Total Loss-absorbing capacity requirement and the securitization framework published in December 2014.

26 In December 2017, the Basel Committee issued the revised leverage ratio framework, which will become into effect on 1 January 2022.

27 Such as monitoring tools for intraday management and the Net Stable Funding Ratio.

28 Such as the leverage ratio buffer for Global Systemically Important Banks, the Global Systemically Important Banks Framework, Domestic Systemically Important Banks framework.

29 In December 2017, the Basel Committee on Banking Supervision published the finalized Basel III post-crisis reforms, which will take effect from January 2022 and include the following aspects: revised standardized approach for credit risk, revised internal ratings-based approach for credit risk, revised credit valuation adjustment framework, revised minimum capital requirements for market risk, revised operational risk framework and an output floor based on the revised Basel III standardized approaches.

30 Some called this last post-crisis document of standards 'Basel IV'. For example, see PricewaterhouseCoopers, 'Basel IV. The Next Generation of RWA', available at https://www.pwc.com/gx/en/services/advisory/basel-iv.html (visited 13 January 2019); Deutsche Bank, 'What is Basel IV', available at https://www.db.com/newsroom_news/2018/what-is-basel-iv-en-11456.htm (visited 13 January 2019); McKinsey & Company, 'Bringing Basel IV into Focus', available at https://www.mckinsey.com/business-functions/risk/our-insights/bringing-basel-iv-into-focus (visited 13 January 2019).

31 RWAs are an estimate of risk that determines the minimum level of regulatory capital a bank must maintain to deal with unexpected losses. A prudent and credible calculation of RWAs is an integral element of the risk-based capital framework.

2017 reforms concentrated on the denominator.[32] The implementation timeline for these reforms starts in January 2022 and ends in January 2027.[33]

B. The evolving role of the Basel standards

1. The growing scope of Basel capital requirements

Capital requirements have evolved with regards to different aspects, including the type of banks and the number of jurisdictions complying with the Basel standards, as well as its legally binding effects. This section will focus on defining the scope of the implementation of Basel capital requirements before moving to the understanding of the reasons behind its growing scope, discussed in Section I.B.2.

Types of institutions subject to this new regulatory framework Basel capital requirements were created to prevent systemic risk exacerbated by banks that operate across national borders. Supervision of internationally active banks was the main focus of the Committee from its creation. According to the Basel I Accord, the agreed framework was designed to establish minimum levels of capital for internationally active banks and national authorities were free to adopt arrangements that set higher levels.[34] Additionally, under Basel Committee's Charter, members agreed to fully implement Basel standards for their internationally active banks.[35]

This evolved over time and when Basel II was published in 2004, the document mentioned not only internationally active banks, but also 'banks with significant risk exposures'[36] and 'other significant banks and their significant bank subsidiaries'[37]. Basel II implementation was atypical and caused a split between the United States and

32 Most banks around the world use the standardized approach (SA) for credit risk. Under this approach, supervisors set the risk weights that banks apply to their exposures to determine RWAs. This means that banks do not use their internal models to calculate RWA. The main changes to the SA for credit risk are expected to reduce reliance on external credit ratings and to require banks to conduct sufficient due diligence when using external ratings. Additionally, 2017 reform introduced some constraints to banks' estimates of risk parameters and limitations for banks using internal-ratings based approach. The reforms also contain some changes regarding operational risk, a leverage ratio buffer for G-SIBs and a risk-sensitive output floor that limits the amount of capital benefit a bank can obtain from its use of internal models, relative to using the SA. See Basel Committee on Banking Supervision, 'Basel III: Finalising Post-crisis Reforms' (2017), available at https://www.bis.org/bcbs/publ/d424.pdf (visited 11 January 2019).

33 See Basel Committee on Banking Supervision, 'Basel III: Finalising Post-crisis Reforms' (2017), available at https://www.bis.org/bcbs/publ/d424.pdf (visited 11 January 2019).

34 See Basel Committee on Banking Supervision, 'International Convergence of Capital Measurement and Capital Standards' (1988), at 2, available at https://www.bis.org/publ/bcbs04a.pdf (visited 11 January 2019).

35 See Section V, num. 12 of Basel Committee's Charter, available at https://www.bis.org/bcbs/charter.htm (visited 11 January 2019).

36 See Basel Committee on Banking Supervision, 'International Convergence of Capital Measurement and Capital Standards. A Revised Framework' (2004), at 149, available at https://www.bis.org/publ/bcbs107.pdf (visited 11 January 2019).

37 See Basel Committee on Banking Supervision, 'International Convergence of Capital Measurement and Capital Standards. A Revised Framework' (2004), at 189, available at https://www.bis.org/publ/bcbs107.pdf (visited 11 January 2019).

Europe. While the United States implemented Basel slowly, partially and only for its most sophisticated banks, Europe implemented it for all banks.[38]

In Basel III, the international activity of banks did not seem to be the main focus of the Committee. Internationally active banks were mentioned only to clarify some of the standards but not as the main targets of the rules. For example, when explaining the countercyclical buffer, Basel III clarifies that for internationally active banks it will be a weighted average of the buffers deployed across all the jurisdictions to which it has credit exposures which might mean that this type of banks will likely find themselves subject to a small buffer on a more frequent basis, since credit cycles are not always highly correlated across jurisdictions.[39] The discussions related to whether Basel standards should apply to all size of banks are now taking place in some jurisdictions due to the studies that have measured the impact of post-crisis regulatory burden and its unintended consequences.[40]

Geographical scope of Basel capital requirements Basel standards framework rapidly went beyond those jurisdictions belonging to the Basel Committee. For a variety of reasons discussed in Section I.B.2, there was an expansion in the number of jurisdictions applying Basel capital requirements. Under the Basel Committee's Charter, only internationally active banks should fully implement Basel standards. Nevertheless, these standards constitute minimum requirements and members of the Basel Committee on Banking Supervision (BCBS) may decide to go beyond them. In September 1993, the Basel Committee issued a statement confirming that G10 countries' banks with material international banking business were meeting the minimum requirements set out in the Accord[41] and just

38 Hal S. Scott and Anna Gelpern, *International Finance: Transactions, Policy, and Regulation* (Minnesota: Foundation Press, 2012), 538.

39 See Basel Committee on Banking Supervision, 'Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems' (2010), at 65, available at https://www.bis.org/publ/bcbs189_dec2010.pdf (visited 11 January 2019).

40 The Congress of United States eased the burden on banks with $50 billion and $100 billion in assets from compliance with some of the more stringent parts of the Dodd–Frank reforms, with the purpose to promote economic growth. Additionally, this legislative initiative established that financial regulatory agencies may evaluate which burdens could be unnecessarily affecting economic growth every 10 years. As a result, the Federal Reserve published a proposal that prescribes materially less stringent requirements on small firms. The lowest rung would entail banks with between $100 billion and $250 billion in assets. They would be subject to significantly reduced requirements including exclusion from stress tests the Fed conducts to see how banks would hold up in the face of another financial crisis. See Randal K. Quarles (Vice Chairman for Supervision), 'Implementation of the Economic Growth, Regulatory Relief, and Consumer Protection Act', Board of Governors of the Federal Reserve System (2018), available at https://www.federalreserve.gov/newsevents/testimony/quarles20181002a.htm (visited 11 January 2019). In Germany, some authors recommended a small banking box approach, which is an entirely new and a more radical way to reinforce proportionality: a specific, independent set of rules for smaller institutions. The idea behind this proposal is counting with a set of rules that makes demands on small banks without placing an unnecessary burden on them and impacting negatively the expansion of lending. See Andreas Dombret, 'Heading Towards a "Small Banking Box"—which Business Model Needs what Kind of Regulation?' Presentation at the Bavarian Saving Banks Conference (2017), available at: http://www.bundesbank.de/Redaktion/EN/Reden/2017/2017_06_29_dombret.html (visited 11 January 2019).

41 See Basel Committee on Banking Supervision, 'History of the Basel Committee'. Bank of International Settlements website: https://www.bis.org/bcbs/history.htm (visited 11 January 2019).

before Basel II was published in 2004, banks from 120 countries had adopted the Basel I rules.[42]

Regarding Basel III, capital requirements have been implemented in all member jurisdictions[43] and jurisdictions that are not members of the Basel Committee also report substantial progress in adopting these standards. The Financial Stability Institute publishes a regular overview of that progress showing that a significant number of these jurisdictions have already brought key elements of Basel III into force or are in the process of doing so—many of which have closely followed the Basel Committee agreed implementation dates. According to the Financial Stability Institute, in 2012, only six non-Basel Committee countries had adopted final rules relating to the new definition of regulatory capital. This number increased to 44 in 2014 and exceeded 60 by the end of 2016. By 2018, around 70 non-Basel Committee member jurisdictions had issued final rules on these elements of the Basel III framework.[44]

The binding effects of Basel capital requirements The binding effects of capital requirements have also changed over time, expanding the scope of capital requirements. International financial regulation, in which Basel capital requirements are certainly included, does not share the same issuance procedures and enforcement as international public law. The commitments by members of the Committee are not imposed in treaties.[45] In this context, Basel capital requirements were not rules directly imposed to countries or financial institutions. They were just recommendations, and therefore, a type of *soft law* that turn into mandatory. These requirements were not *formally* binding to all financial systems and institutions when they were issued by the Basel Committee. International financial regulation is encouraged by various disciplining mechanisms that render it, under certain circumstances, more coercive than traditional theories of 'soft law' making it mandatory. International financial regulation defies a number of common, and indeed foundational, assumptions regarding the operation and compliance pull of informal legal obligations. The complex operations of the international financial system challenge traditional academic frameworks that classify obligations into hard and soft law.

Whatever their character as hard or soft, this standards need to be analyzed and understood against their institutional backdrops and disciplining mechanisms which make them, in practice, mandatory. [46] Although its compliance is not enforceable

42 See Hal S. Scott and Anna Gelpern, *International Finance: Transactions, Policy, and Regulation* (Minnesota: Foundation Press, 2012), 542.

43 The Basel Committee comprises 45 members from 28 jurisdictions, consisting of central banks and authorities with formal responsibility for the supervision of banking business.

44 William Coen (Secretary General of the Basel Committee on Banking Supervision), 'Global adoption of the Basel framework: enhancing financial stability across countries', Speech 9th Islamic Financial Services Board Public Lecture on Financial Policy and Stability (2017), available at https://www.bis.org/speeches/sp170405.pdf (visited 11 January 2019).

45 Some authors include these instruments under the category of 'soft law' since they do not impose formal legal obligations for the member jurisdictions. See Chris Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (Cambridge: Cambridge University Press, 2015), at 120.

46 See Chris Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (Cambridge: Cambridge University Press, 2015), 120–27 and 179–81.

through sanctions, other mechanisms exist in international financial regulation to incentivize and, somehow make mandatory, the implementation of Basel standards even for non-member jurisdictions of the Basel Committee. For example, bank compliant with capital requirements even beyond the minimum required is perceived as less risky or, in other words, more solvent. Also, significant evidence is available that banks often keep higher amounts of capital on their books than is formally required under their national regulations.[47]

2. Understanding the reasons behind the growing scope of Basel standards
The expansion of the scope of Basel-based capital requirements, especially to emerging markets and non-internationally active banks, , can be explained by two primary reasons. First, international surveillance programs and financial assistance provided by international organizations such as the International Monetary Fund (IMF) and the World Bank forced many countries to comply with Basel capital requirements in order to be able to receive financial aid. Second, market forces and reputational concerns also served as a powerful mechanism to embrace the adoption of Basel capital requirements by countries and institutions beyond those initially included in the scope of the Basel standards.

International surveillance programs and financial assistance The IMF, the World Bank, and the Financial Stability Board—initially known as the Financial Stability Forum—have played integral roles in the adoption of the Basel standards.[48] The fall of the Berlin wall in 1989 and the dissolution of the Soviet Union in 1991 enabled the IMF to become a nearly universal institution. In 3 years, membership increased from 152 countries to 172.[49] However, by then the involvement of the IMF and the World Bank was mostly related to the promotion of a stable system of exchange rates and macroeconomic aspects rather than financial market regulation matters.[50] This surveillance involved matters such as foreign direct investment, government spending and transparency, exchange rate controls, and similar economic aspects, but not issues related to how countries were implementing financial regulation reforms with regards to banks' performance and capital requirements.

47 See Chris Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (Cambridge: Cambridge University Press, 2015), 149.

48 See Hal S. Scott and Anna Gelpern, *International Finance: Transactions, Policy, and Regulation* (Minnesota: Foundation Press, 2012), 542; Chris Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (Cambridge: Cambridge University Press, 2015), 120.

49 See International Monetary Fund, 'Societal Change for Eastern Europe and Asian Upheaval (1990–2004)'. Available at https://www.imf.org/external/about/histcomm.htm (visited 13 January 2019).

50 Article IV of International Monetary Fund's Articles of Agreement required that each member collaborate with the IMF and other members via surveillance to assure orderly exchange arrangements and to promote a stable system of exchange rates. See Chris Brummer, *Minilateralism: How Trade Alliances, Soft Law and Financial Engineering are Redefining Economic Statecraft* (Cambridge: Cambridge University Press, 2014), 102–03.

Later, the Asian financial crisis in 1990s[51] marked a relevant change in this surveillance performed by the IMF and the World Bank. As a result, many countries were forced to implement major reforms in their financial sector as a condition to obtain financing from the IMF.[52] However, this brought consequences for many countries, not only the ones involved in the Asian financial crisis. International policy makers or groups of financial regulators[53] started to promote better practices and standards in order to prevent capital market crises that could severely affect the stability of the global financial system and exchange rates. Additionally, G-7 leaders pressed for increased surveillance activities directed towards capital market management and, in 1998, the Financial Stability Forum—today, the Financial Stability Board—was in charge of identifying the internationally accepted prudential standards that could prevent global financial crises in the future.[54] These standards became later the basis for the global surveillance system led by the IMF and the World Bank, called

51 The Asian financial crisis affected mostly East Asia beginning in July 1997 and raised fears of a worldwide economic meltdown due to financial contagion. The crisis started in Thailand with the financial collapse of the Thai baht—Thai currency—after the Thai government was forced to float the baht due to lack of foreign currency to support its currency peg to the US dollar. At the time, Thailand had acquired a burden of foreign debt that made the country effectively bankrupt even before the collapse of its currency. Indonesia, South Korea, and Thailand were the countries most affected by the crisis. Hong Kong, Laos, Malaysia, and the Philippines were also hurt by the slump. Brunei, China, Singapore, Taiwan, and Vietnam were less affected, although all suffered from a loss of demand and confidence throughout the region. Japan was also affected, though less significantly. The IMF created a series of rescue packages for the most-affected economies to enable affected nations to avoid default, tying the packages to currency, banking, and financial system reforms. The IMF's support was conditional on a series of economic reforms, the 'structural adjustment package' (SAP). The SAPs called on affected nations to reduce government spending and deficits, allow insolvent banks and financial institutions to fail, and aggressively raise interest rates. See Masahiro Kawai and Peter J. Morgan, 'Central Banking for Financial Stability in Asia', Asian Development Bank Institute, 377 ADBI Working Paper Series (2012), available at https://web.archive.org/web/20121018154416/ http://www.adbi.org/files/2012.08.28.wp377.central.banking.financial.stability.asia.pdf (visited 11 January 2019); Stanley Fischer, 'The IMF and the Asian Crisis—Address by Stanley Fischer' (1998), available at https://www.imf.org/en/News/Articles/2015/09/28/04/53/sp032098 (visited 11 January 2019); Sam Ho, 'History Lesson: Asian Financial Crisis. Reasons for the Asian Financial Crisis' (2011), available at https://web.archive.org/web/20151117133309/ http://spyonstocks.com/history-lesson-asian-financial-crisis (visited 11 January 2019).

52 This is when the scope of surveillance was extended beyond monetary and policy affairs. National and international regulatory authorities concluded that capital markets performance could have important implications or the financial stability. See Chris Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (Cambridge: Cambridge University Press, 2015), 94.

53 For example, the International Organization of Securities Commissions or the Basel Committee for Banking Supervision.

54 The Forum was founded in 1999 to promote international financial stability. Its founding resulted from discussions among Finance Ministers and Central Bank Governors of the G7 countries. The FSF membership included about a dozen nations who participate through their central banks, financial ministries and departments, and securities regulators, including the USA, Japan, Germany, UK, France, Italy, Canada, Australia, the Netherlands, and several other industrialized economies as well as several international economic organizations. At the G20 summit on November 2008, it was agreed that the membership of the FSF will be expanded to include emerging economies, such as China. The 2009 G-20 London summit decided to establish a successor to the FSF, the Financial Stability Board. The FSB includes members of the G20 who were not members of FSF. See Financial Stability Board, 'Our History' (2018), available at: http://www.fsb.org/history/ (visited 14 January 2019).

Financial Sector Assessment Program (FSAP),[55] in which the Reports on Observance of Standards and Codes[56] include the Core Principles for Effective Banking Supervision[57] issued by the Basel Committee.

According to Principle 16 of the Core Principles for Effective Banking Supervision, financial supervisors should set prudent and appropriate capital adequacy requirements for banks that reflect the risks undertaken by a financial institution in the context of the markets and macroeconomic conditions in which it operates. The Core Principles add that supervisors shall define the components of capital, bearing in mind their ability to absorb losses, and at least for internationally active banks, capital requirements shall not be less than the applicable Basel standards.[58]Additionally, the Basel Committee does not consider implementation of the Basel-based framework a pre-requisite for compliance with the Core Principles, and the FSAP should be tailored to country-specific circumstances[59]. Yet, FSAP grades Basel capital requirements compliance for the jurisdictions evaluated. In fact, FSAPs are incorporated into IMF and World Bank aid programs, which tie the adoption of international regulatory practices such as Basel capital requirements, to the conditions of the World Banks and the IMF's loans making these standards mandatory.

For example, Peru is not a member of the Basel Committee.[60] Nonetheless, this country is evaluated under the FSAP undertaking a full graded Basel Core Principles assessment of the essential criteria, as compliant, non-compliant, or materially non-compliant. According to this report evaluation, 'the Superintendence of Banks, Insurers, and Private Pension Funds has made significant progress on the implementation of the

55 The FSAP was established in 1999. It is a comprehensive and in-depth assessment of a country's financial sector. The FSAP analyzes the resilience of the financial sector, the quality of the regulatory and supervisory framework, and the capacity to manage and resolve financial crises. Based on its findings, FSAPs produce recommendations of a micro- and macro-prudential nature for the evaluated country to implement. See International Monetary Fund, 'Financial Sector Assessment Program (FSAP)' (2018), available at: https://www.imf.org/external/np/fsap/fssa.aspx (visited 13 January 2019).

56 The Report on the Observance of Standards and Codes (ROSC) initiative was launched in 1999 as a prominent component of efforts to strengthen the international financial architecture. The initiative aims at promoting greater financial stability, both domestically and internationally, through the development, dissemination, adoption, and implementation of international standards and codes. The ROSC initiative has recognized international standards in 12 policy areas. The 12 policy areas fall under 1 of 3 broader groups—policy transparency, financial sector regulation and supervision, and market infrastructure. See World Bank, 'Reports on the Observance of Standards and Codes' (2018), available at: http://www.worldbank.org/en/programs/rosc (visited 11 January 2019).

57 The Core Principles for Effective Banking Supervision are the de facto minimum standard for sound prudential regulation and supervision of banks and banking systems. Originally issued by the Basel Committee on Banking Supervision. In 1997, they are used by countries as a benchmark for assessing the quality of their supervisory systems and for identifying future work to achieve a baseline level of sound supervisory practices. The Core Principles were revised in 2006 and 2012. See Basel Committee on Banking Supervision, 'Core Principles for Effective Banking Supervision' (2012), available at https://www.bis.org/publ/bcbs230.pdf.

58 See Basel Committee on Banking Supervision, 'Core Principles for Effective Banking Supervision' (2012), at 44–6, available at: https://www.bis.org/publ/bcbs230.pdf.

59 See International Monetary Fund, 'Financial Sector Assessment Program (FSAP)' (2018), available at https://www.imf.org/external/np/fsap/fssa.aspx (visited 13 January 2019).

60 See Basel Committee on Banking Supervision, 'Basel Committee Membership' (2018), available at https://www.bis.org/bcbs/membership.htm (visited 13 January 2019).

Basel III regulatory reform agenda.'[61] Additionally, the assessment shows a comparison between what Peruvian regulators require regarding capital adequacy and Basel III standards. The differences between Basel recommendations and Peruvian regulations are highlighted in the report, but the implemented approaches aim to achieve the same objectives as Basel III and, according to the FSAP, 'broadly equivalent'.[62]

Another example is the Russian FSAP report, issued in 2016 by the IMF, in which it is highlighted that the Russian framework for capital adequacy has been periodically updated to include Basel III standards and was further amended by a series of reforms, most of which became effective in January 2016. The report states that 'there are a few deviations from the Basel capital calculation that are in fact being eliminated according to the CBR [Central Bank of Russia], starting on 1 January 2016.'[63]

Market pressures and reputational concerns Market pressures and reputational concerns also pushed regulators and banks to adopt Basel standards. This seems to be justified on several grounds. First, many countries may have been motivated to follow the world's most important economies (all of them represented in the Basel Committee) in an attempt to replicate their financial regulatory framework not only as a way to show how sound their financial system is but also to be perceived in the market as compliant with a reputable institution such as the Basel Committee.[64] Therefore, regardless of the country's financial problems and priorities, which we will explain

61 See International Monetary Fund, Monetary and Capital Markets Department, 'Peru: Financial Sector Assessment Program-Detailed Assessment of Observance—Basel Core Principles for Effective Banking Supervision', IMF Staff Country Reports (2018), at 37, available at https://www.imf.org/en/Publications/CR/Issues/2018/12/14/Peru-Financial-Sector-Assessment-Program-Detailed-Assessment-of-Observance-Basel-Core-46474 (visited 11 January 2019).

62 See International Monetary Fund, Monetary and Capital Markets Department, 'Peru: Financial Sector Assessment Program-Detailed Assessment of Observance—Basel Core Principles for Effective Banking Supervision', IMF Staff Country Reports (2018), at 37, available at https://www.imf.org/en/Publications/CR/Issues/2018/12/14/Peru-Financial-Sector-Assessment-Program-Detailed-Assessment-of-Observance-Basel-Core-46474 (visited 11 January 2019).

63 See International Monetary Fund, Monetary and Capital Markets Department, 'Russian Federation Financial Sector Assessment Program Detailed Assessment of Observance Basel Core Principles for Effective Banking Supervision' (2016), at 148, available at https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Russian-Federation-Financial-Sector-Assessment-Program-Detailed-Assessment-of-Observance-44285 (visited 11 January 2019).

64 In most cases, implementing the Basel standards does not require legislative approval. Central banks and regulatory agencies are often the ones in charge of prudential regulations. This facilitates the implementation of Basel Committee's recommendations in many jurisdictions from a procedural point of view, since not legislative track must be followed. Nonetheless, this is not the case of all jurisdictions. For example, Chilean financial regulation requires the legislative to adopt the prudential requirements in a law, which makes more difficult to this jurisdiction to implement Basel standards. The legislative agenda usually has other priorities in the top of the list, specially taken into account that Chilean banks were not highly affected by the global financial crisis. See Enrique Marshall, 'En deuda con Basilea III', Diario Financiero (2018), available at https://www.df.cl/noticias/opinion/columnistas/en-deuda-con-basilea-iii/2018-09-20/195235.html (visited 11 January 2019).

further in Section II.A, many jurisdictions might be indirectly forced to adopt these new capital requirements.[65]

Second, currently the number of banks that interact in international markets is higher than when the Basel Committee was founded. The number of international banks in the globalized world has increased, as well as the complexity of financial conglomerates. In 1995, around 20% of the banks were international banks. In 2013, almost 40% of the banks worldwide were international banks, despite the fact that the number of international banks decreased in 2008 and 2009 as a result of the global financial crisis.[66] The more active a bank is internationally, the more incentivized it will be to implement Basel standards. Due to the reputation of the Basel Committee, many market participants (including lenders, investors, and credit rating agencies) may appreciate, and even encourage, Basel standards implementation. After all, these rules are enacted by a group of developed countries theoretically equipped with many experts to provide advice on how to design a better financial system. For example, investors in financial institutions with low capital ratios generally require a bank issuer to accept lower prices or higher return rates for their securities to reflect the increased risk associated with their investment.[67] These market discipline mechanisms are particularly important in the context of capital adequacy requirements because to capitalize a bank at a reasonable cost, the bank usually needs to appear attractive to investors in international financial markets.[68] In some jurisdictions, this need seems to have pushed some banks themselves to ask their regulators to implement Basel reforms.[69]

Third, the costs of comparing financial systems and institutions will be lower if international practices are standardized. Indeed, since standardization saves resources associated with gathering and analyzing information, countries and institutions may

65 For example, in Colombia the conversations around the implementation of Basel III started to take place in 2011. Although, Colombia is not a member of the Basel Committee and Colombian banks were not affected by the global financial crisis, this jurisdiction started the implementation of Basel III capital requirements in 2012 but at the same time financial inclusion was a priority for the government. See Sergio Clavjio, 'Informe de Inclusion Financiera' (2012), available at https://bancadelasoportunidades.gov.co/sites/default/files/2017-03/Reporte_inclusion_2012_0.pdf (visited 11 January 2019). Another example is Mexico, the discussion about Basel III post-crisis capital requirements started in 2012. In this context, some market participants argued that expansion of lending was a priority and more important than the implementation of Basel capital requirements. See Isabel Mayioral Jimenez, 'Mexico aplicará Basilea III, le duela a quien le duela', Expansion (2012), available at: https://expansion.mx/economia/2012/03/02/basilea-3-sin-marcha-atras-cnbv (visited 11 January 2019).

66 José María Álvarez, Javier Pablo García, and Olga Gouveia, 'Globalización bancaria: ¿Cómo está impactando la regulación en los bancos globales?', Observatorio Global BBVA Research (2016), at 20, available at https://www.bbvaresearch.com/wp-content/uploads/2016/08/Globalizacion_bancaria.pdf.

67 These market disciplines can operate regardless of whether or not a regulator has committed to a particular regulatory standard. See Chris Brummer, *Soft Law and the Global Financial System: Rule Making in the 21st Century* (Cambridge: Cambridge University Press, 2015), 150.

68 Banks incorporated in jurisdictions were capital markets are not sufficiently developed, need to raise capital in foreign and more developed markets such as the United States. However, an investor in the Unites States will expect the bank to comply with Basel standards. Otherwise, the investment will be considered riskier.

69 For example, in Colombia, the banking industry encouraged financial regulators to consider the incorporation of hybrid instruments or contingent capital bonds as part of Additional Tier 1 and Tier 2 capital adequacy categories, even though these type of bonds do not exist in Colombian capital markets. Necessarily, Colombian banks that want to issue AT1 or T2 bonds should go to more developed markets, such as the United States.

have incentives to adopt internationally accepted standards. Even if they convincingly explain why they are not complying with international standards, this explanation would be more costly to process by third parties. Moreover, credit rating agencies also tend to be a source of information for domestic financial regulators with regards of how peer jurisdictions are complying with Basel standards.[70] As a result of the higher costs associated with explaining why a country might not need to adopt these international standards, and therefore, the market punishment associated with this lack of compliance, countries and institutions will reasonably have incentives to comply with Basel standards.

II. UNINTENDED CONSEQUENCES OF BASEL CAPITAL REQUIREMENTS

A. Overview

While the imposition of higher capital requirements for banks may promote a more resilient global financial system,[71] the Basel Committee does not seem to have carefully assessed the unintended consequences potentially created by this policy,[72] especially in the context of emerging markets.

First, financial regulators around the world may have different regulatory objectives, or at least different priorities. For instance, in emerging markets, financial inclusion can be as important as financial instability due to the economic and social problems that the lack of enough access to financial services may generate in these countries. Moreover, since many emerging economies do not even have a large banking sector, financial stability might not be a major concern for the global financial system due to the probably smaller systemic effects that a crisis in these countries may create.

Additionally, divergences across jurisdictions and financial sectors may lead to different problems as shown during the 2008 global financial crisis. For example, while the US financial crisis was originated by a combination of factors mainly related to the securitization of poor-quality loans, the Spanish banking crisis was due to a variety of local factors (e.g. housing bubble, poor corporate governance of Spanish saving

70 Rating agencies were sharply criticized for their credit risk assessments of certain derivative products in the run-up to the global financial crisis and subsequently when certain European sovereign bonds were downgraded. However, rating agencies announcements continued to have significant effects on credit default swaps spreads after the global financial crisis. See Mahir Binici, Michael Hutchison and Evan Weicheng Miao, 'Are Credit Rating Agencies Discredited? Measuring Market Price Effects from Agency Sovereign Debt Announcements', Bank of International Settlements Working Papers No. 704 (2018), available at https://www.bis.org/publ/work704.pdf.

71 Mathias Dewatripont and Jean Tirole, *The Prudential Regulation of Banks* (Cambridge: MIT Press, 1994), 272 pp; Douglas W. Diamond and Raghuram G. Rajan, 'A Theory of Bank Capital', 55 Journal of Finance 2431 (2000); Douglas W. Diamond and Raghuram G. Rajan, Liquidity Risk, Liquidity Creation and Financial Fragility, 109 Journal of Political Economy 287 (2001); Jochen Schanz et al., 'The Long-term Economic Impact of Higher Capital Levels', BIS Paper No. 60 (http://www.bis.org/publ/bppdf/bispap60j.pdf), 73–80.

72 Some of these consequences have been warned by other authors. See Ahmed Al-Darwish et al., 'Possible Unintended Consequences of Basel III and Solvency II', IMF Working Paper Series 11/187 (2011); Viral V. Acharya, 'The Dodd-Frank Act and Basel III: Intentions, Unintended Consequences, and Lessons for Emerging Markets', Asian Development Bank Institute, ADBI Working Paper 392 (2012).

banks, etc.) intensified by the global financial crisis, and Colombia did not experience any major financial problems during the period of the global financial crisis. Therefore, the different problems and infrastructures existing across financial sectors may require different regulatory responses. Thus, the one-size-fits-all solution promoted by the Basel Committee not only may create some costs of implementation, but it might not even be necessarily to address the particular issues existing in a country.

Finally, it should be taken into account that, at least at a firm level, equity is more expensive than debt due to several factors, including the tax subsidies of debt and asymmetries of information between firms and investors. Moreover, in many emerging economies, in which capital markets might not be deep enough to allow firms to raise capital, many companies might be forced to list their shares abroad. This could be particularly the case of banks operating in emerging markets that might be forced to raise capital abroad in order to be able to comply with Basel capital requirements. Therefore, these foreign listings and issuances—sometimes just to comply with the Basel standards—will significantly increase transaction costs. And if so, banks may end up either (i) reducing their lending activity as means of reducing their risks and therefore their needs for higher capital requirements, or (ii) increasing to their consumers the costs of their financial services. In both cases, these higher transaction costs will exacerbate the problem of financial exclusion already existing in many emerging economies.

B. Different priorities of financial regulators

The Basel Accord, like most financial regulation, reflected the priorities of its drafters. These included concerns about financial stability and the overall robustness of international capital markets, most of which, if not entirely, where in G10 jurisdictions. From an economic perspective, financial regulation seeks to minimize information asymmetries, negative externalities, and other market frictions that may undermine the ability of the financial system to perform its functions.[73] Since this type of frictions may differ across jurisdictions, the concrete legal goals of a financial regulator could also vary. Therefore, along with the divergences that countries may have in terms of financial priorities, different problems and infrastructures may lead to different regulatory objectives.

Indeed, financial regulation in a developed economy usually seeks to pursue similar goals, mainly associated with investor protection, the prevention of financial crime, and

73 For an analysis of the functions of the financial system, see Dwight B. Crane, Kenneth A. Froot, Andre F. Perold, Robert C. Merton, and Peter Tufano (eds), *The Global Financial System: A Functional Perspective* (Cambridge: Harvard Business School Press, 1995); Ross Levine, 'Financial Development and Economic Growth: Views and Agenda' (1997) 35 Journal of Economic Literature 688 (1997); John Armour et al., *Principles of Financial Regulation* (Oxford: Oxford University Press, 2016), 24–7.

the promotion of competition, market efficiency, and financial stability.[74] However, whereas most countries around the world can reasonably agree on the desirability of these goals, many economies might need to pursue other regulatory objectives (e.g. financial inclusion), or the weight of each goal may differ across jurisdictions.

For example, some emerging economies may prioritize financial inclusion just as much as they do financial stability. In order to grow their economies in a sustained fashion or to achieve financial security for unbanked or underbanked swaths of their domestic populations, they may choose ostensibly less onerous regulatory strategies to kick start and drive development. Moreover, since the type of financial institutions operating in many emerging economies might be relatively small, domestic, and with a simple business model, the concerns for financial stability and systemic risks cannot be as powerful, or at least as complex to address, as it can be the case of other countries or financial institutions. Therefore, the imposition of a financial regulation mainly focused on addressing systemic risk may exacerbate some local problems (e.g. financial exclusion) without creating any clear gains in terms of financial stability for some jurisdictions. As a result, Basel capital requirements should be sufficiently tailored to respond to the economic priorities of a particular system.

C. Cross-jurisdictional differences in market structure and systems

The types of problems and infrastructures existing in a country may also diverge significantly. For example, some countries exhibit more market-based financial systems while other jurisdictions may have larger banking systems.[75] A country may have a developed capital market while that might not be true for many other economies. Derivative markets can be very developed in many economies while derivatives in many countries

74 For a general overview about the goals financial regulation, see John Armour et al., *Principles of Financial Regulation* (Oxford: Oxford University Press, 2016), 61–9. However, it should be noted that these goals might differ across jurisdictions not only because, as it is mentioned in this paper, different countries may have different problems and priorities, but also because of the divergences existing among financial supervisors across jurisdictions (e.g. twin peaks, institutional model, single financial supervisor). For example, the US Securities and Exchange Commission has the mission to protect investors, and promote capital formation and fair, orderly and efficient markets (https://www.sec.gov/Article/whatwedo.html). These goals do not include, for example, financial stability, since the institutional model followed in the United States assigns this goal to other regulatory agencies (e.g. Federal Reserve). Sometime similar happens with the UK Financial Conduct Authority, mainly designed to protect consumers, competition and market integrity (https://www.fca.org.uk/news/news-stories/fca%E2%80%99s-approach-advancing-its-objectives). In this case, however, the lack of references to financial stability is due to the fact that, in a 'twin peaks' model of supervision, protecting the financial system against systemic risks is a goal pursued by another regulatory agency (in the context of the UK, for example, the Prudential Regulation Authority). In Singapore, the situation is a bit different. The Monetary Authority of Singapore is the single regulatory authority not only for monetary policy but also for financial regulation. For this reason, it has a broader set of objectives, including the promotion of a stable financial system, safe and sound intermediaries, safe and efficient infrastructures, fair, efficient, and transparent markets, transparent and fair-dealing intermediaries and offerors, and well-informed and empowered consumers. See Monetary Authority of Singapore, 'Objectives and Principles of Financial Supervision in Singapore' (2015), available at http://www.mas.gov.sg/~/media/MAS/News%20and%20Publications/Monographs%20and%20Information%20Papers/Objectives%20and%20Principles%20of%20Financial%20Supervision%20in%20Singapore.pdf.

75 Franklin Allen and Douglas Gale, *Comparing Financial Systems* (Cambridge: MIT Press, 2001).

might be even prohibited or strongly discouraged.[76] Banks in some jurisdictions may adopt the legal form of corporations while financial institutions in other countries may take the form of cooperatives or some type of non-profit organizations.[77] Some countries may apply international reporting financial standards while other countries may follow local accounting rules. The banking system of a particular country can be formed by many small financial institutions while other banking sectors are mainly governed by a few major financial conglomerates.

These divergences, among many others, may lead to different economic and financial problems and infrastructures that might require different regulatory responses. For example, in countries with a large banking sector, financial stability and systemic risk are probably considered major issues for financial regulators. Likewise, in countries with well-developed capital markets and many sophisticated investors and participants, the regulator can rely more on the market as a way to protect investors. By contrast, in countries in which the market is not able to accurately price the governance and performance of a firm, the regulator might need to be more paternalistic.

The United States faced in 2008 one of the hardest financial crisis in the history mainly due to a housing bubble and the securitization of subprime mortgages.[78] The Colombian financial system, nevertheless, was sound at the time.[79] However, the country faced a major crisis in the '90s due to a variety of macroeconomic factors.[80] In Spain, the 2010 banking crisis, while affected by international factors (including the US and the Eurozone crises), was mainly due to a variety of *internal* problems[81], including

76 This happens in some countries in the Middle East in which derivatives are associated with gambling, and therefore they are prohibited or strongly discouraged due to religious reasons.

77 In the Spanish banking sector, for example, this type of non-profit organizations (adopting the form of 'foundations') has traditionally played a major role. However, due to their corporate governance failures evidenced during the Spanish financial crisis, they were forced to disappear. See Pablo Martín-Aceña, 'The Saving Banks Crisis in Spain: When and How?' World Savings and Retail Banking Institute—European Savings and Retail Banking Group, Working Paper (2013), available at https://www.wsbi-esbg.org/SiteCollectionDocuments/Martin-AcenaWeb.pdf.

78 See Hal S. Scott and Anna Gelpern, *International Finance: Transactions, Policy, and Regulation* (Minnesota: Foundation Press, 2012), 35–44. Comparing the US financial crisis with those existing in Asia and Europe, see Ross P. Buckley, Emilios Avgouleas, Douglas W. Arner, 'Three Major Financial Crises: What Have We Learned', UNSW Law Research Paper No. 18–61 (2018), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id_3247455 (visited 11 January 2019).

79 Autorregulator del Mercado de Valores, 'Impacto de la crisis financiera internacional en el sistema financiero colombiano y en su regulación' (2009), available at https://www.amvcolombia.org.co/attachments/data/Impactodelacrisis.pdf.

80 For an analysis of the Colombian financial crisis, see José D. Uribe and Hernando Vargas, 'Financial Reform, Crisis and Consolidation in Colombia', Working Papers Banco de la República No. 204 (2002); Jose E. Gomez-Gonzalez and Nicholas M. Kiefer, 'Bank Failure: Evidence from the Colombian Financial Crisis', OCC Economics Working Paper No. 2 (2007).

a housing bubble and the poor governance structure of Spanish saving banks (*Cajas de ahorros*), which were not 'corporations' but 'foundations'[82] and were mainly managed by politicians.[83]

The Basel requirements may also have different consequences across jurisdictions. For example, in developing economies, the imposition of capital requirements may exacerbate the problem of pervasive financial exclusion. The Basel Accord at its essence requires companies to issue shares, or avoid lending to presumed risky borrowers, where they are deemed to have insufficient capital. In many developing countries, borrowers are by definition more 'risky' than borrowers in more developed jurisdictions. Furthermore, in countries with underdeveloped capital markets, the costs associated with issuing shares can be much higher due to the inability of a bank to raise capital in local markets. Therefore, the issuance of shares becomes more expensive due to higher transaction costs (e.g. hiring local and foreign lawyers). It can also have a direct impact on the allocation and access to credit in a jurisdiction. In China, for example, it has been shown that the implementation of capital requirements can lead to lending discrimination against small businesses.[84]

Therefore, while several arguments (mainly associated with systemic risk and the globalization of financial services) justify a global approach to financial regulation, the specific features of a country should be taken into account since market and regulatory infrastructures differ across jurisdictions. If financial regulators follow a one-size-fits-all approach, not only countries will be bearing some costs that may be undesirably harming their economies, but perhaps more importantly for financial regulation, these policies cannot be even protecting the stability of the financial system.

D. The economic implications of higher capital requirements

This section explains why equity is more expensive than debt, particularly in emerging markets. Namely, it shows, at a firm-level perspective, that debt is cheaper than equity due to a variety of factors, including the tax subsidies of debt, asymmetries of information, and the costs associated with raising capital—especially in many civil law countries where these transactions require shareholder approval, intervention of public notaries and bear other transactions costs. In emerging markets, rising capital becomes even more costly since, as the result of their underdeveloped capital markets, many firms

81 For an analysis of the reasons and costs of the Spanish banking crisis, see Javier Suárez, 'The Spanish Crisis: Background and Policy Challenges', CEPR Discussion Paper Series No. 7909 (2010); Eloisa Ortega and Juan Peñalosa, 'The Spanish Economic Crisis: Key Factors and Growth Challenges in the Euro Area', Documentos ocasionales del Banco de España, No. 1201 (2012); Aurelio Gurrea Martínez, '¿Concurso o rescate de entidades financieras? Un análisis coste-beneficio del proceso de recapitalización de la banca española', in Andrés Recalde, Ignacio Tirado and Antonio Perdices (eds), Crisis y reforma del sistema financiero (Aranzadi, 2015), 329–47.

82 Therefore, they were not subject to market scrutiny and a market for corporate control.

83 More than one-third of the board members of Spanish saving banks were politicians representing the region where these institutions operated. See http://www.20minutos.es/noticia/558592/0/politicos/cajas/ahorro/ (visited 11 January 2019).

84 Li Ma, Miao Liu, Junxun Dai, and Xiang Huang, 'Capital Requirements of Commercial Banks and Lending Discrimination against Small Businesses: Theory and Empirical Evidence from China', Annals of Economics and Finance 14–2(A) (2013), available at http://aeconf.com/articles/nov2013/aef140205.pdf, 389–416.

seeking to raise equity (sometimes, because the law requires a minimum level of capital as it happens in the context of financial institutions) are required to list their shares oversee. Therefore, listing and issuing shares abroad increase transactions costs, making capital more costly.

This argument is not different for banks. In fact, since banks can borrow money even cheaper—due to the fact that a large part of a bank's debt structure comes from deposits that are a source of finance almost free of charge for the bank—the differences between the cost of debt and the cost of equity may be even more pronounced. Hence, banks will be forced to have higher levels of equity in order to comply with Basel standards, and equity is more expensive especially for banks operating in emerging markets because they need to raise capital broad. This situation causes various adverse effects.

First, banks can be incentivized to restrict lending. By reducing their lending practices, they will incur in less risky activity—and there is nothing riskless than not borrowing or investing at all—and if so they will be required to have lower levels of capital according to the Basel standards. Second, banks can be incentivized to preserve the volume of its lending activity but charging more for their loans. Thus, they will be able to recover the higher costs associated with the equity that they will be forced to have if they want to lend money. In either case, the economy will be harmed since individuals and firms will have lower access to finance.

In the context of emerging markets, this harm will become greater due to the greater problems of financial exclusions existing in these countries. Therefore, while the imposition of new capital requirements for banks can create adverse effects for any economy, it will be more costly for banks from emerging markets. This argument, linked to the fact that, as it was discussed in the previous section, emerging markets may have different problems and financial priorities, and the implementation of Basel might not even be necessarily in the first place, will make us argue that the implementation of Basel capital requirements can be socially undesirable in these countries.

1. Why equity is more expensive than debt at a firm level

In a seminal work, Modigliani and Miller showed that, in a world with no asymmetries of information, no transaction costs, no taxes, and no costs of bankruptcy, the value of the firm is independent of its capital structure.[85] Therefore, it is irrelevant whether the firm's assets are financed by debt or equity.

Subsequent studies, however, showed that, once these 'market frictions' are included in the model, the use of debt can increase the value of the firm, or at least it will be preferred by the shareholders of a company (including banks) due to a variety of reasons. First, the use of debt may reduce agency costs between managers and shareholders in several ways. On the one hand, the use of debt will encourage managers to generate cash-flows as means of avoiding the risk of insolvency and therefore the risk of losing their jobs. Therefore, by generating more cash flows, not only the managers can reduce agency problems but they can also maximize the value of the firm. On the

85 Franco Modigliani and Merton Miller, 'The Cost of Capital, Corporation Finance and the Theory of Investment', 48 The American Economic Review 261 (1958).

other hand, the use of debt may encourage creditors to monitor debtors' behaviour and investments projects. Therefore, it may improve the governance and performance of the firm. Finally, the existence of debt may reduce the amount of free cash flows that managers may waste when running the firm.[86]

Second, the use of debt may generate a positive signal to the market in a world of asymmetries of information. Indeed, according to the pecking order theory,[87] companies prefer to use debt over equity due to the asymmetries of information existing between insiders (i.e. managers and controlling shareholders) and outsiders (i.e. minority shareholders and creditors).[88] If the insiders know that the company is not going to generate enough cash flows to repay its debts, they would likely prefer to use equity over debt. Otherwise, if they decide to use debt and the company does not generate enough cash flows to meet its payments, the company may become insolvent. And if so, managers may end up losing their jobs and the controlling shareholders may lose their investments. So the managers (sometimes encouraged by the controlling shareholders) will have incentives to prefer equity when they are not sure about the performance of the company and its future ability to generate cash flows. By deciding to use debt, then, the market may perceive this choice as a positive signal, since the insiders seem to believe in the firm's ability to generate cash flows.

Third, the use of debt can be less expensive because it is generally subsidized by the state through the tax system.[89] Fourth, by using debt instead of equity, shareholders are able to externalize the costs of bankruptcy. Fifth, the use of debt does not require the costly procedure to increase capital existing in many countries.[90] Moreover, in emerging economies, the issuance of shares may be even more costly, since firms might be forced to list their shares and raise capital oversee due the smaller size and depth of their local capital markets. Therefore, these companies will have to bear significant transaction costs (e.g. fees charged by local and international lawyers).

86 Michael C. Jensen, 'Agency Cost Of Free Cash Flow, Corporate Finance, and Takeovers', 76 American Economic Review 323 (1986). This waste of resources can be done in several ways, including tunnelling and 'empire buildings' with the purpose of making a hostile takeover harder or just getting more power, popularity or private benefits of control. Analyzing how the threat of a hostile takeover generated by a market for corporate control may reduce agency costs, see the seminal work by Henry G. Manne, 'Mergers and the Market for Corporate Control', 73 The Journal of Political Economy 110 (1965). See also Frank H. Easterbrook and Daniel R. Fischel, The Proper Role of a Target's Management in Responding to a Tender Offer, 94 Harvard Law Review 1161 (1981); Michael C. Jensen, 'Agency Cost of Free Cash Flow', Corporate Finance, and Takeovers, 76 American Economic Review 323 (1986); Michael C. Jensen, 'The Modern Industrial Revolution, Exit, and The Failure of Internal Control Systems', 48 Journal of Finance 831 (1994).

87 Stewart C. Myers and Nicholas S. Majluf, 'Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have', 13 Journal of Financial Economics 187 (1984).

88 Stewart C. Myers and Nicholas S. Majluf, 'Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have', 13 Journal of Financial Economics 187 (1984); Richard Brealey, Steward Myers, and Franklin Allen, *Principles of Corporate Finance,* 10th ed. (New York: McGraw Hill, 2011), 460–62.

89 Anat R. Admati et al., 'Debt Overhang and Capital Regulation', Rock Center for Corporate Governance at Stanford University Working Paper No. 114 (2012), available at https://ssrn.com/abstract=2031204 (visited 11 January 2019).

90 This is particularly true in many civil law countries, where an increase of capital usually requires shareholder approval, and it also implies costs of public notaries, registries, taxes, and others.

Finally, for the specific context of banks, the use of debt can be even cheaper than for other firms, since part of a bank's debt structure consists of deposits from the general public obtained almost for free. Therefore, while obtaining equity can create several costs (e.g. issuance of shares), borrowing money from depositors can be an easy and cheap task for a bank. Hence, an all-equity bank will be a less valuable bank than one funded at least in part by deposits.[91]

As a result of these factors, firms—including banks—will prefer debt over equity. Moreover, while many firms may have incentives to restrict the use of debt up to certain limits due to the risks and costs of bankruptcy,[92] this deterrence effect might not be powerful enough in the context of financial institutions—particularly large banks. Indeed, in these entities, many managers might think that the government will not let the institution fail. Therefore, the costs of bankruptcy might not serve as a powerful device to constrain the use of debt.[93]

For all of these reasons, it can be reasonably argued that, whereas it is not clear whether debt is cheaper than equity from a social welfare perspective,[94] banks will find more costly to raise equity, especially in emerging economies. Therefore, by increasing capital requirements for banks, there will be two possible responses. First, banks may be incentivized to restrict lending as means of reducing their level of risk. By doing so, the bank will be required to have lower levels of capital to comply with Basel standards. Second, banks can be incentivized to preserve the volume of its lending activity but charging more for their financial services. Thus, they will be able to recover the higher costs associated with increasing equity. In either case, the imposition of these higher capital requirements may harm firms' access to finance in any economy, while it may exacerbate the problems of financial exclusions existing in emerging markets.

91 John Armour et al (2016), *Principles of Financial Regulation* (Oxford: Oxford University Press, 2016), 312.

92 See Jonathan Berk and Peter DeMarzo, *Corporate Finance* (Harlow: Pearson International Edition, 2011), 520–22, explaining the so-called 'trade-off theory' and how it prevents firms from the excessive use of debt.

93 For a different view, however, see John Armour and Jeffrey N. Gordon, 'Systematic Harm and Shareholder Value', 6 Journal of Legal Analysis 35 (2014), at 53.

94 See Anat R. Admati et al., 'Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Socially Expensive', Preprints of the Max Planck Institute for Research on Collective Goods Bonn 2013/23 (2013), at 8–15; Anat R. Admati and Martin F. Hellwig *The Bankers' New Clothes: What's Wrong with Banking and What to Do about It* (Princeton: Princeton University Press, 2013); Jochen Schanz et al., 'The Long-term Economic Impact of Higher Capital Levels', BIS Paper No. 60 (http://www.bis.org/publ/bppdf/bispap60j.pdf). A study conducted by the Bank for International Settlements about the long-term economic effects of stronger capital and liquidity requirements seems to reach the same conclusion. See http://www.bis.org/publ/bcbs173.pdf(visited 13 January 2019). A similar result can be found in David Miles, Jing Yang, and Gilberto Marcheggiano, 'Optimal Bank Capital', Bank of England External MPC Unit Discussion Paper No. 31 (2011). These authors argue that the social benefit of higher capital for preventing and mitigating financial crises far exceeds its private costs to the banks, and suggested that optimum capital requirements may be double the Basel II ratio, at 14% risk-based capital and 6% leverage ratio.

2. *Evidence*

Why higher capital requirements can be harmful for developed countries In the past years, many empirical studies have analyzed the impact of implementing new capital requirements in various countries around the world.[95] For example, using data for the UK banks subject to time-varying capital requirements in 1998–2007, some authors show that one percentage point rise in capital requirements reduced credit growth in the United Kingdom by 6.5–7.2%.[96] Likewise, other studies conducted in the United Kingdom showed that higher capital requirements provide an upper bound estimate of 4.5% reduction in lending associated with a one percentage point increase in risk-weighted capital requirement.[97]

Assessing the transition from Basel I to Basel II in France, another empirical study showed that a 2% reduction in capital requirements led to an increase in aggregate corporate lending of 1.5%. [98] In Italy, it was found a 2% contraction in credit supply when banks became more capitalized after the collapse of Lehman Brothers. Finally, using data for 250 large banks in the euro area, other authors found that forcing a banking group to increase its Core Tier 1 ratio by one percentage point was associated with a reduction in this group's credit growth by 1.2%.[99]

In the United States, the empirical evidence also shows some interesting results for the assessment of the economic implication of increasing banks' capital requirements. Though most of these studies do not show the impact of higher capital requirements on the volume or cost of credit, they show a correlation between higher capital requirements and an increase in the size of the shadow banking system.[100] The reason seems to be quite straightforward—shadow banks take advantages of the regulatory arbitrage generated by the imposition of higher capital requirements to traditional banks. Therefore, while higher capital requirements for banks may enhance the stability of

95 For a summary of the existing empirical literature on this matter, see Natalya Martynova, 'Effect of Bank Capital Requirements on Economic Growth: A Survey', DNB Working Paper No. 467 (2015).

96 Shekhar Aiyar, Charles Calomiris and Tomasz Wiedalek, 'Does Macropru Leak? Evidence from a UK Policy Experiment', 46 Journal of Money, Credit and Banking 181 (2014).

97 Joseph Noss and Priscilla Toffano, 'Estimating the Impact of Changes in Bank Capital Requirements During a Credit Boom', Bank of England Working Paper No. 494 (2014).

98 Matthieu Brun, Henri Fraisse and David Thesmar, 'The real effects of bank capital requirements, Débats économiques et financiers No. 8', Banque de France (2013).

99 Jean-Stephane Mesonnier and Allen Monks, 'Did the EBA capital exercise cause a creditcrunch in Euro area?', Banque de France Working Paper No. 491 (2014).

100 Guillaume Plantin, 'Shadow Banking and Bank Capital Regulation', 28 The Review of Financial Studies 146 (2015); Viral V. Acharya, Philipp Schnabl, and Gustavo Suarez, 'Securitization Without Risk Transfer', 107 Journal of Financial Economics 515 (2013); Gary Gorton and Andrew Metrick, 'Regulating the Shadow Banking System', 41 Brookings Papers on Economic Activity 261 (2010); Zoltan Pozsar et al., 'Shadow Banking', Federal Reserve Bank of New York Staff Report No. 458 (2010), at 1–26; Joshua Gallin, 'Shadow Banking and the Funding of the Nonfinancial Sector', Finance and Economics Discussion Series, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board (2013), at 1–20; Juliane Begenau, Saki Bigio, and Jeremy Majerovitz, 'What Can We Learn from the Financial Flows of the 2008–2009 Crisis', Tech. Rep., Working Paper (2016), at 1–40.

the financial system, increasing banks' capital requirements makes the overall financial system riskier.

Why higher capital requirements can be even more harmful for emerging-markets In an empirical study of the Colombian banking system, one of the authors of this paper tests whether additional capital requirements—as the ones recommended by Basel III—make loans more expensive and also affect the expansion of lending in Colombia.[101] Unlike previous studies conducted in emerging economies, this paper does not provide any robust evidence regarding the impact of increasing capital requirements in the supply of loans. Nevertheless, it shows that these higher requirements in Tier 1 capital—core equity capital specifically—make loans more expensive in Colombia. Therefore, the implementation of Basel capital requirements actually reduced people's access to finance in Colombia.

This effect becomes particularly worrying in Colombia because, as in other emerging economies, the country faces significant financing necessities. Moreover, the lack of developed capital markets and other alternatives sources of finance not only make harder to promote financial inclusion and economic growth, but it encourages some opportunistic and even criminal forms of lending such as the so-called 'shark loans', particularly common in the country.[102]

Another emerging economy negatively affected by the implementation of capital requirements is China, where imposing higher levels of equity resulted in lending discrimination against small businesses.[103] Moreover, it was found that the implementation of capital requirements had a significant impact on China's banking industry. Namely, it made banks reluctant to take risks (even tolerable risks) what it can be particularly harmful for financing innovation and growth.

Therefore, even though the evidence suggests that the implementation of Basel capital requirements may have adverse effects for developed economies, it seems the tradeoffs may be even higher in developing markets, not only in light of recent empirical data, but also, as mentioned earlier, due to the pervasive challenge of financial exclusion.

3. *Implications*

We have shown that increasing higher capital requirements for banks may harm individuals' and firms' access to a variety of financial services, including credit, deposits, payments, insurance, and risk management.[104] Thus, various costs can be

101 See Nydia Remolina-León, 'Do New Capital Requirements Make Loans More Expensive? An Empirical Study for the Colombian Banking System', Ibero-American Institute for Law and Finance, Working Paper Series 11/2016, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2861607 (visited 11 January 2019).

102 Era Dabla-Norris et al 'Financial Inclusion: Zooming in on Latin America', IMF Working Paper 15/206 (2015).

103 Li Ma et al., 'Capital Capital Requirements of Commercial Banks and Lending Discrimination against Small Businesses: Theory and Empirical Evidence from China'. Annals of Economics and Finance 14–2(A) (2013), available at http://aeconf.com/articles/nov2013/aef140205.pdf.

104 Asli Demirgüç-Kunt, A., Throsten Beck, and Patrick Honohan, 'Finance for All? Policies and Pitfalls in Expanding Access', World Bank Policy Report (2008).

created, especially in the context of emerging markets. First, as shown by the law and finance literature, financial development is usually associated with economic growth.[105] This is the result of the ability of the financial system to channel funds from savers to borrowers, facilitate exchanges through the payment system, select value-creating projects, improve debtors' and firms' behaviour and performance, and facilitate risk management.[106] Therefore, a decrease in the financial services activity can be harmful for the real economy.

Second, the lack of use of financial services may increase a country's hidden economy. For instance, if individuals and firms do not use electronic payment systems and most of their transactions are paid in cash, it will be easier to avoid taxes and governmental control. And this problem can become particularly harmful for many emerging (even developed) economies already suffering from this problem.

Third, higher regulatory costs in the banking system may create regulatory arbitrage.[107] Therefore, not only it may be unfair in the sense that entities providing similar services might not be enjoying the same level playing field, but it can also increase the size of the shadow banking system.[108]

Fourth, people's inability to have access to financial services through the banking system may be incentivized to use some forms of 'shark loans' as a way to finance their consumption. And this illegal lending practices—primarily existing in emerging

105 Ross Levine, 'Financial Development and Economic Growth: Views and Agenda', 35 Journal of Economic Literature 688 (1997); Stijn Claessens and Konstantinos Tzioumis, 'Ownership and Financing Structures of Listed and Large Non-listed Corporations', 14 Corporate Governance: An International Review 266 (2006); Ross Levine, 'Law, Finance, and Economic Growth', 8 Journal of Financial Intermediation 8 (1999); Thorsten BeckAsli Demirgüç-Kunt and Ross Levine, 'Finance, Inequality and the Poor', 12 Journal of Economic Growth 27 (2007); Rafael La Porta et al., 'Legal Determinants of External Finance', 53 Journal of Finance 1131 (1997); Rafael La Porta et al., 'Law and Finance', 106 Journal of Political Economy 1113 (1998); Rafael La Porta et al., 'Investor Protection and Corporate Governance', 58 Journal of Financial Economics 3 (2000); Ross Levine, 'Finance and Growth: Theory and Evidence', in Philippe Aghion and Steven Durlauf (eds), *Handbook of Economic Growth* (Amsterdam: Elsevier Science, 2005), 865–934; Raghuram G. Rajan and Luigi Zingales, 'Financial Dependence and Growth', 88 American Economic Review 559 (1998).

106 John Armour et al., *Principles of Financial Regulation* (Oxford University Press, 2016), 24–7.

107 For an analysis of this concept, and its relation with regulatory competition, see Wolf-Georg Ringe, 'Regulatory Competition in Global Financial Markets—The Case for a Special Resolution Regime', Oxford Legal Studies Research Paper No. 49 (2015), available at https://papers.ssrn.com/sol3/papers2.cfm?abstract_id=2659617 (visited 11 January 2019).

108 Stijn Claessens and Lev Ratnovski, 'What is Shadow Banking?', IMF Working Paper No. 14/25, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2559504, at 3–7 (visited 11 January 2019); Guillaume Plantin, 'Shadow Banking and Bank Capital Regulation', 28 The Review of Financial Studies 146 (2015); Viral V. Acharya, Philipp Schnabl, and Gustavo Suarez, 'Securitization Without Risk Transfer', 107 Journal of Financial Economics 515 (2013); Gary Gorton and Andrew Metrick, 'Regulating the Shadow Banking System', 41 Brookings Papers on Economic Activity 261 (2010); Zoltan Pozsar et al., 'Shadow Banking', Federal Reserve Bank of New York Staff Report No. 458 (2010), at 1–26; Eddy Wymeersch, 'Shadow Banking and Systemic Risk', European Banking Institute Working Paper Series No. 1 (2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2912161, at 1–20 (visited 11 January 2019); Steven L. Schwarcz, 'Shadow Banking and Regulation in China and Other Developing Countries', Duke Law School Public Law & Legal Theory Series No. 8 (2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2871297, at 1–19 (visited 11 January 2019).

economies[109]—not only can be harmful from an economic perspective but they can also create several problems of security. For this reason, it seems particularly relevant to analyze the direct and indirect effects generated by the imposition of new capital requirements, especially in emerging markets.

E. Conclusion

This section has shown that different countries may exhibit different problems, infrastructures, and financial priorities that may justify different regulatory responses. Therefore, the one-size-fits-all model of regulation incentivized by the Basel Committee may create several problems without necessarily improving the robustness of a particular financial system. In our opinion, the presence and power of certain countries in the Basel Committee makes Basel standards a bit biased towards those problems and financial priorities existing in their economies. Therefore, while several arguments (mainly associated with systemic risk and the globalization of financial services) justify a global approach to financial regulation, the particular features of a country should be taken into account. Otherwise, not only countries will be bearing some costs that may undesirably harm their economies, but perhaps more importantly for financial regulation, these policies cannot be even enhancing the stability of the financial system.

III. PROPOSALS

A. Tax system

A simple change in the tax system may favour the capitalization of banks in a more efficient way than the costly rules imposed by the Basel Committee. Namely, we propose that the Basel Committee expand its supervisory mandate to explore tax strategies in concert with the Organisation for Economic Co-operation and Development (OECD) wherein companies may deduct an implied interest of equity.[110] Likewise, member countries should consider independently implementing tax strategies wherein the tax benefits of debt are abolished for financial institutions.[111] Thus, banks would have

109 This is a critical problem in some Latin American countries. Due to the lack of financial inclusion, these lending practices have become very popular. See Era Dabla-Norris et al., 'Financial Inclusion: Zooming in on Latin America', IMF Working Paper 15/206 (2015).

110 This was, for one a strategy pursued by Belgium in 2006. For an empirical study of the Belgium tax reform allowing the deductibility of equity, and this reform increased the level of equity in Belgium firms, see Frédéric Panier, Francisco Pérez-Gonzáles, and Pablo Villanueva, 'Capital Structure and Taxes: What Happens When You (Also) Subsidize Equity?' (2015), available at https://www.bis.org/events/confresearchnetwork1603/perez_gonzalez.pdf.

111 This measure has been proposed by other scholars. See Anat R. Admati et al., 'Healthy Banking System is the Goal, not Profitable Banks', Financial Times, November 9, 2010, available at https://www.gsb.stanford.edu/faculty-research/excessive-leverage/healthy-banking-system-goal (visited 11 January 2019); Mark Roe and Michael Troege, 'Degradation of the Financial System Due to the Structure of Corporate Taxation', European Corporate Governance Institute (ECGI)—Law Working Paper No. 317 (2016), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2767151 (visited 11 January 2019); Aurelio Gurrea-Martínez, 'The Impact of the Tax Benefits of Debt in the Capital Structure of Firms and the Stability of the Financial Systems', Oxford Business Law Blog, 30 March 2017, available at https://www.law.ox.ac.uk/business-law-blog/blog/2017/03/impact-tax-benefits-debt-capital-structure-firms-and-stability (visited 11 January 2019).

more incentives to increase capital from two different ways: by punishing debt and by favouring equity through the tax system.

In our opinion, while some may argue that the unfavourable treatment of debt may lead to an increase in the cost of credit, we do not think this result will occur for two primary reasons. First, our proposal would simultaneously include softening the regulatory costs in terms of capital requirements directly or indirectly imposed by the Basel Committee. Therefore, the potential increase in the cost of credit generated by abolishing the tax benefits of debt would be offset for this reduction of regulatory costs. Second, by giving tax benefits to equity, this source of finance would become cheaper. Therefore, this proposal would incentivize banks to have higher capital requirements without pushing countries to change their financial priorities, harm their economies, or suffer other unintended consequences generated by the implementation of Basel standards.

B. Regional Committees for the Basel Committee on Banking Supervision

The particular features and problems of each financial system seem to require a more tailored regulation. Therefore, even though various factors (including financial stability and the globalization of finance) require a global approach to financial regulation, a local or at least regional focus seems to be needed in the Basel Committee. In that way, countries can inform the rulemaking process in ways that help alert rule writers as to the distributive impact of the rules, and costs for local economies, that certain reforms may entail. For that purpose, we think that the Basel Committee's regional meetings should have greater say in the production of rules that impact their domestic financial system.

Currently, regional forums are just that, forums, and most developing countries have no say in the formulation of international capital standards. We propose that a mechanism of review be launched, along with expanded participation in activities setting the objectives of new rounds of policymaking. At present, the only recourse for countries disinterested in Basel rules that they have adopted under domestic law is undercompliance in the form of regulatory forbearance. This, however, leads to incentives to underimplement even helpful rules necessary for growing a domestic financial system. It can also help promote cultures of noncompliance among domestic supervisors and an undermining of the rule of law. A better strategy is to have more countries directly participating in the reforms, early on. This can increase the fairness of international standards, while also heightening their compliance pull.

C. Further steps to avoid a one-size-fits-all assessment of financial systems and institutions

Even when the recommendations of the Basel Committee are not directly applicable to many countries and institutions, this paper has showed how a variety of factors (including market forces and the role of international organizations) might create considerable pressures to conform with Basel capital requirements, regardless of their relevance for a country's developmental and legal status.

Many of these pressures are related to the role and power of the market. Market participants may choose to punish banks operating in jurisdictions that do not comply with Basel standards. Non-compliance may be viewed, as mentioned above, as a signal of risk. In some instances, however, such stances may prove unwarranted, and even unhelpful, but with no alternative sources of information they may be left with no choice.

An optimal system would allow investors, lenders, and other financial intermediaries that are stakeholders in Basel compliance to make their decisions based on the particular features of a country. Countries and governments can help. But it may be worth also including the Basel Committee and the IMF as well, allowing countries subject to surveillance to state their own case in official international assessments to provide color to official international monitoring.

IV. CONCLUSION

This paper has argued that the implementation of Basel capital requirements may create some unintended consequences. On the one hand, higher capital requirements may reduce people's access to finance, and this effect can be particularly harmful in emerging markets taking into account their less developed capital markets and their greater problems of financial exclusion. On the other hand, Basel standards do not take into account the particular features of a country, despite the fact that, forced by the market and many international organizations, most countries around the world end up adopting these practices. Therefore, the one-size-fits-all model of regulation incentivized by the Basel Committee may create several problems without necessarily improving the robustness of a particular financial system.

We have suggested various policy recommendations to promote a more resilient financial system without hampering financial inclusion and economic growth. First, we have proposed to use the tax system to incentivize the capitalization of banks. Second, we have also argued that regional committees should play a major role in the Basel Committee. Thus, it will be easier to understand the particular needs and problems of a country or region before implementing policies that may end up affecting the global economy. Finally, we also urge investors, lenders, credit rating agencies, and other financial intermediaries to pay more attention to the specific features of a country. By abandoning the one-size-fits-all approach that seems to prevail in financial regulation, not only investors will enjoy a greater level of protection but, more importantly, countries will be in a better position to address their local problems and priorities without harming, but rather enhancing, the stability of the global financial system.