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Global Regulatory Standards and Secured Transactions Law Reforms: At the Crossroad Between Access to Credit and Financial Stability

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ARTICLE

GLOBAL REGULATORY STANDARDS AND SECURED TRANSACTIONS LAW REFORMS: AT THE CROSSROAD BETWEEN ACCESS TO CREDIT AND FINANCIAL STABILITY

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I. INTRODUCTION

Globally harmonized prudential regulation and internationally driven secured transactions law reforms chart the normative premises sustaining credit-based economies. Oscillating between the need of expanding credit creation to promote economic growth and the urgency of controlling the excessive accumulation of debt, modern economies depend on private law rules and regulatory provisions that originate in different fora of the international lawmaking arena. Under the auspices and guidance of international organizations concerned with the alleviation of poverty,[1] a growing number of jurisdictions across the globe have embarked – or are embarking – upon substantial legal reforms to facilitate credit expansion and financial inclusion through the establishment of proprietary entitlements, known as

1. The efforts to harmonize and modernize secured transactions law contribute to achieving the first ("end poverty in all its forms everywhere") of the seventeen sustainable development goals to be reached by 2030 by the international community; G.A. Res. 70/1, at 15 (Oct. 21, 2015). The United Nations General Assembly endorsed the Addis Ababa Action Agenda reiterating the relevance of international legal harmonization to reduce poverty and inequalities; G.A. Res. 69/313, ¶ 89 (Aug. 17, 2015).

"security interests" or "security rights," over personal property.[2] In essence, secured transactions law reforms aim at equipping creditors and debtors with legal tools that effectively reduce credit risk by placing secured creditors in a priority position vis-à-vis unsecured creditors and competing claimants.[3] Prudential regulation, through international regulatory standards, sets forth the amount of capital that – relative to the total investments and in proportion to the risks acquired – regulated deposit-taking institutions, for simplicity banks, must not fund with borrowed money.[4] The overarching aim is to

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2. The list of countries that, in pursuit of these goals, have reformed or are in the process of reforming their secured transactions laws is lengthy and ranges across six continents, animating vibrant scholarly debates and policy analyses. For a forward-looking analysis of the development of secured transactions law internationally and comparatively, see generally Symposium, *Secured Transactions Law in the 21st Century*, 81 LAW & CONTEMP. PROBS. (Charles W. Mooney, Steven L. Schwarcz & Giuliano G. Castellano, special eds., 2018). For a critical account of the issues concerning secured transactions law reforms in several jurisdictions, see generally SECURED FINANCING IN COMMERCIAL TRANSACTIONS (Frederique Dahan ed., 2015). For an examination of the economic effect of secured transactions law reforms in developing countries in Africa, Asia, and Latin America, see, e.g., Boris Kozolchyk, *Secured Lending and Its Poverty Reduction Effect,* 42 TEX. INT'L L.J. 727 (2007). For an analysis of the reform debate in Europe, see, e.g., Tibor Tajti, *Could Continental Europe Adopt a Uniform Commercial Code Article 9-type Secured Transactions System? The Effects of the Differing Legal Platforms*, 35 ADEL. L. REV. 149 (2014). For an overview of the main issues affecting the reform debate at the national level in the United Kingdom, see, e.g., HUGH BEALE ET AL., THE LAW OF SECURITY AND TITLE-BASED FINANCING ¶¶ 23.01-23.22 (2d ed. 2012).

3. The core purpose of curbing credit risk associated to secured transactions is recognized in virtually any legal system. In the United States, see LYNN M. LOPUCKI & ELIZABETH WARREN, SECURED CREDIT: A SYSTEMS APPROACH xxxi (7th ed. 2012); Ronald J. Mann, *Explaining the Pattern of Secured Credit*, 110 HARV. L. REV. 625, 646 (1997); Grant Gilmore, *The Secured Transactions Article of the Uniform Commercial Code*, 16 LAW & CONTEMP. PROBS. 27, 29 (1951). In Canada, see RONALD C. CUMING, CATHERINE WALSH & RODERICK J. WOOD, PERSONAL PROPERTY SECURITY LAW 1 (2005). Under English law, *see* BEALE ET AL., *supra* note 2, ¶ 1.09; SIR ROY GOODE, GOODE ON LEGAL PROBLEMS OF CREDIT AND SECURITY ¶ 1-01 (Louise Gullifer ed., 5th ed. 2013). The core legal body of the U.N. system, i.e. United Nations Commission on International Trade Law (UNCITRAL) consider the reduction of credit risk associated to secured transactions as essential to promote access to credit worldwide. *See* U.N. COMM'N ON INT'L TRADE LAW (UNCITRAL), LEGISLATIVE GUIDE ON SECURED TRANSACTIONS 2 (2008) [hereinafter LEGISLATIVE GUIDE] (noting that "[r]isk is reduced because credit secured by assets gives creditors access to the assets as another source of recovery in the event of non-payment of the secured obligation").

4. In common parlance, capital requirements are often referred to as the capital that banks should "set aside." This locution should be used with the caveat that capital requirements do not demand banks to hold some portion of their deposits, which is what "liquidity requirements" and "reserves" (outside the scope of this Article) impose. Instead, capital for banks is what other firms is term as "equity" and equity-like instruments, i.e. "own funds." This point is eloquently illustrated by ANAT R. ADMATI & MARTIN HELLWIG, THE

ensure that banks maintain sufficient funds to insulate depositors from unexpected losses and promote financial stability by controlling the level of risk taken by banks.[5] These branches of law intersect when banks secure the repayment of loans with collateral. Yet, from a regulatory perspective, not all security rights are considered to offer sufficient protection against credit risk.

An inconsistency, if not a fully-fledged paradox, surfaces in the international and national legal frameworks governing credit: core legal devices designed by private law rules to reduce credit risk may be considered, under capital requirements, inapt to curb credit risk and, thus, equated to unsecured credit. At first blush, the different treatments of collateral may appear symptomatic of a clash between broad policy objectives, namely, economic growth (stimulated through access to credit) and financial stability. A closer examination, however, reveals a tension that is more profound than a mere balancing exercise between two policy objectives.

The main argument of this Article is that dissonances between secured transactions law and capital requirements stem from their different *ethoi* and hinder both access to credit and financial stability worldwide. To sustain this argument and advance the debate in both fields of law,[6] it is necessary, first, to isolate the rationales and the

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BANKERS' NEW CLOTHES: WHAT'S WRONG WITH BANKING AND WHAT TO DO ABOUT IT 6-7 (2014).

5. *See* HAL S. SCOTT & ANNA GELPERN, INTERNATIONAL FINANCE: TRANSACTIONS, POLICY AND REGULATION 575 (21st ed. 2016); RICHARD S. CARNELL, JONATHAN R. MACEY & GEOFFREY P. MILLER, THE LAW OF BANKING AND FINANCIAL INSTITUTIONS 251 (4th ed. 2009); Michael B. Gordy, Erik A. Heitfield & Jason Wu, *Risk-Based Regulatory Capital and the Basel Accords*, *in* THE OXFORD HANDBOOK OF BANKING 550-66 (Allen N. Berger et al. eds., 2d ed. 2014); JOHN ARMOUR ET AL., PRINCIPLES OF FINANCIAL REGULATION 290-315 (2016).

6. In spite of the decades-old plea for a deeper coordination, the intersection between these two sets of norms has not been the object of scrupulous investigations. In particular, Sir Roy Goode noted: "[t]he harmonisation of private law affecting credit will lose much of its value if it does not proceed hand in hand with harmonisation of public regulation." Roy Goode, *A Credit Law for Europe?*, 23 INT'L & COMP. L. Q. 227, 236 (1974). The debate has been recently reinvigorated by new evidence indicating the role of secured transactions law and capital requirements in creating credit. *See* Giuliano G. Castellano & Marek Dubovec, *Credit Creation: Reconciling Legal and Regulatory Incentives*, 81 LAW & CONTEMP. PROBS. (forthcoming 2018). UNCITRAL has recently recognized the relevance of the issue and future work that results in a text containing specific guidance to national regulatory authorities on capital requirements. *See* Giuliano G. Castellano & Marek Dubovec, *Coordinating Secured Transactions Law and Capital Requirements in* U.N. COMM'N ON INT'L TRADE LAW, MODERNISING INTERNATIONAL TRADE LAW TO SUPPORT INNOVATION AND SUSTAINABLE

operational logics of secured transactions law and capital requirements. The narrative sustaining and justifying the law of secured transactions is rooted in the idea that security interests, especially those in personal property, are the core engine for economic growth as they redress the problem of "dead capital;"[7] that is, the mismatch between the assets held by individuals or companies and the assets that financiers are willing to accept as collateral. Through this lens, international organizations have been actively engaged in promoting law reforms that establish legal regimes that facilitate the conversion of dead capital into productive capital. The underlying assumption is that by preferring secured creditors over unsecured creditors, the use of collateral is facilitated and more credit is extended at a lower cost. Hence, law reformers strive to design a legal regime in which creditors and debtors are able to negotiate the terms of their consensual transactions to fit their idiosyncratic financing needs and risk appetites, while mandatory rules are largely imposed having in view the effects of security rights on third parties. As illustrated in this Article, such a rationale permeates national laws and the international legal standards adopted by the United Nations Commission on International Trade Law ("UNCITRAL") and the European Bank for Reconstruction and Development ("EBRD").[8]

Capital requirements follow a different rationale that is encapsulated in their preventive, or prudential, function. They are defined by the Basel Committee on Banking Supervision (the Basel Committee) – housed in the Bank for International Settlements ("BIS") – to ensure capital adequacy of internationally active banks.[9]

DEVELOPMENT, PROCEEDINGS OF THE CONGRESS OF THE UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW 166, (Vienna, 4-6 July 2017), http://www.uncitral.org/pdf/english/congress/17-06783_ebook.pdf [https://perma.cc/9TGS-79FK] (archived Mar. 1, 2018); REPORT of the U.N. COMM'N ON INT'L TRADE LAW (UNCITRAL), on its Fiftieth Session (3-21 July 2017), ¶¶ 222-23 U.N. Doc A/72/17 (2017).

7. The term was coined by the economist Hernando de Soto. *See* HERNANDO DE SOTO, THE MYSTERY OF CAPITAL: WHY CAPITALISM TRIUMPHS IN THE WEST AND FAILS EVERYWHERE ELSE (3d ed. 2000).

8. On the origins of UNCITRAL and its early work, see generally John Carey, *UNCITRAL: Its Origins and Prospects*, 15 AM. J. COMP. L. 626 (1967); Allan E. Farnsworth, *UNCITRAL-Why? What? How? When?*, 20 AM. J. COMP. L. 314 (1972). On the EBRD, see Steven Weber, *Origins of the European Bank for Reconstruction and Development*, 48 INT'L ORG. 1 (1994).

9. On the genesis of the Basel Committee, see CHARLES GOODHART, THE BASEL COMMITTEE ON BANKING SUPERVISION: A HISTORY OF THE EARLY YEARS 1974–1997 (2011).

When transposed into national legal systems, capital requirements are imposed on credit institutions with the intent of preventing excessive risk-taking, which may have detrimental implications for the stability of individual banks and the entire financial system.[10] This translates into two main areas of regulatory intervention, consisting of micro-prudential and macro-prudential regulation, and concerning, respectively, the solvency of individual banks and the stability of the entire financial system. Upon these premises, mandatory requirements are established, imposing a statutory limit on the ratio of "un-borrowed" funds, such as equity, to borrowed funds, such as deposits. The amount and the composition of banks' own capital is calculated against the risks posed by their operations. By controlling the risk associated with lending, capital requirements influence the lending choices of individual banks, which may divert their funds towards activities subject to lower capital requirements.[11]

The two aforementioned rationales develop into distinctive operational logics. Security instruments are consensual arrangements established to curb credit risk. They are governed by private law rules that are concerned with the nexus of rights and obligations created through a security agreement. In contrast, capital requirements are regulatory provisions that focus on the internal processes that banks must deploy to evaluate the riskiness of any given lending operation, with or without collateral, in order to determine the corresponding capital charge. Accordingly, the law pertaining to secured transactions assumes that, inasmuch as private law rules are conducive to private negotiations, a security right reduces credit risk. Whereas, capital requirements are designed to control the level of risk taken by individual banks and consider collateral to reduce credit risk only if

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On the Basel Committee's role within the modern global governance system, see CHRIS BRUMMER, MINILATERALISM: HOW TRADE ALLIANCES, SOFT LAW AND FINANCIAL ENGINEERING ARE REDEFINING ECONOMIC STATECRAFT 99-102 (2014).

10. *See* ADMATI & HELLWIG, *supra* note 4, at 87; Gordy, Heitfield & Wu, *supra* note 5, at 550.

11. For an accurate analysis of the incentives created by capital regulation in the context of the Global Financial Crisis, see generally Roberta Romano, *For Diversity in the International Regulation of Financial Institutions: Critiquing and Recalibrating the Basel Architecture*, 31 YALE J. ON REG. 3 (2014). *See also* Castellano & Dubovec, *Credit Creation: Reconciling Legal and Regulatory Incentives, supra* note 6 (noting that international capital requirements affect the cost of creating new loans and the lack of coordination with secured transactions law distorts the incentive for providing commercial loans).

specific statutory criteria are met. Hence, when secured transactions law and capital requirements are approached in a compartmentalized fashion, a hiatus emerges that, in turn, manifests itself in two distinct understandings of what constitutes an effective protection against credit risk.

To address this gap, this Article examines the regulatory treatment of security rights in personal property with primary reference to international legal and regulatory standards. The provisions enshrined in the UNCITRAL and the EBRD model laws are measured against the requisites that collateralized transactions must satisfy in order to benefit from discounted capital charges, pursuant to the Second Basel Capital Accord ("Basel II")[12] and the Third Basel Capital Accord ("Basel III").[13] Given the different levels of implementation of these standards at the national level, different methodological approaches are required to investigate their interaction. Secured transactions laws of selected jurisdictions – belonging to civil law and common law legal families – are considered. Specific attention is given to legal and regulatory frameworks of the European Union and its Member States. In the EU, in fact, secured transactions laws are disharmonized while capital requirements are harmonized and largely based on Basel II that is, in turn, applied to any credit institution operating in the European single market through the Capital Requirements Directive IV ("CRD IV") and the Capital Requirements Regulation ("CRR").[14] Where departing from international principles, Belgian, English, French and

12. BASEL COMMITTEE ON BANKING SUPERVISION, BASEL II: INTERNATIONAL CONVERGENCE OF CAPITAL MEASUREMENT AND CAPITAL STANDARDS: A REVISED FRAMEWORK (rev. 2006) [hereinafter BASEL II].

13. The process to amend Basel II started in the aftermath of the 2007-2009 financial crisis, leading, in 2011, to the adoption of the first instrument that eventually became known as Basel III. *See* BASEL COMMITTEE ON BANKING SUPERVISION, BASEL III: A GLOBAL REGULATORY FRAMEWORK FOR MORE RESILIENT BANKS AND BANKING SYSTEMS (rev. 2011) [hereinafter BASEL III (2011)]. In December 2017, after extensive negotiations, Basel III has been completed and its final version was formally adopted. *See* BASEL COMMITTEE ON BANKING SUPERVISION, BASEL III: FINALISING POST-CRISIS REFORMS (2017) [hereinafter BASEL III].

14. Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on Access to the Activity of Credit Institutions and the Prudential Supervision of Credit Institutions and Investment Firms, Amending Directive 2002/87/EC and Repealing Directives 2006/48/EC and 2006/49/EC, 2013 O.J. L 176/338 [hereinafter CRD IV]; Council Regulation 575/2013, on Prudential Requirements for Credit Institutions and Investment Firms and Amending Regulation 648/2012, 2013 O.J. L 176/1 [hereinafter CRR].

Italian laws governing non-possessory security rights over tangibles, financial assets and receivables are examined through the prism of the principles established by the CRR. This systematic approach allows us to identify specific dissonances between secured transactions law and capital requirements. These dissonances affect the terms of a security agreement, the rights and obligations of the parties, the public filing regime for security rights and their enforcement. As illustrated in detail in this Article, the uncoordinated intersection between these two branches of law hinders the effectiveness of reforms aimed at expanding access to credit and inducing the development of unregulated credit markets.

The remainder of this Article is structured as follows. Part II, in defining the boundaries of this investigation, unveils the hiatus between the rationales and the inner logics underpinning personal property secured transactions law and prudential regulation. Part III focuses on the intersection between the two areas by examining the regulatory treatment of security rights in receivables, financial collateral and tangible assets. Part IV offers an analysis of the consequences of the uncoordinated coexistence of secured transactions laws and capital requirements on access to credit and financial stability.

II. TWO RATIONALES

As secured transactions laws of various legal systems undergo a process of reform and the debate over the recently adopted revision of harmonized capital requirements has animated the global political debate,[15] the need for adequate understanding of the interactions

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15. As a testament to their local impact, secured transactions law reforms generally hit the headlines in local news. The international limelight is reserved to the Basel Committee efforts to furthering the reforms process started in the aftermath of the global financial crisis. The intention is to implement a package of new reforms to complete Basel III. However, the proposed changes have been perceived so radical that the document presented have been dubbed as Basel IV. *See infra* note 23 and accompanying text. Different rounds of negotiations, amid a mutating political environment, have blocked the process of changes with European countries and the U.S. often struggling to find an alignment. *See, e.g.,* Caroline Binham & Jim Brunsden, *France Hardens Stance Against Higher Bank Capital Requirements*, FIN. TIMES, Oct. 10, 2017, https://www.ft.com/content/ee8f42eb-422a-3dc9-92a2-8ceb7d9fb4ef; Julia-Ambra Verlaine, *Global Financial Regulation Faces Uncertain Future After Trump's Order,* WALL ST. J., Feb. 6, 2017, https://www.wsj.com/articles/global-financial-regulation-faces-uncertain-future-after-trumps-order-1486405041; Caroline Binham & Emma Dunkley, *Basel*

between these two fields of law intensifies. The tension between the policy objectives pursued by secured transactions laws and prudential regulation offers only a superficial explanation of the chasm separating these two sets of legal rules.

It is acknowledged that secured transactions law chiefly aims at broadening access to credit, promoting economic growth; whereas, prudential regulation focuses on curbing the risks associated with lending operations in order to ensure financial stability. However, if the inconsistencies resulting from this divide are reduced to a clash between policy objectives, advancements in the discourse would be obstructed by an alleged dichotomy between economic growth and financial stability. Following this conceptualization, swift policy recommendations are often advanced. Depending on the favored position, a relaxation of capital requirements may be suggested, arguably to promote economic growth,[16] or the desirability of comprehensive legal reforms to support credit creation may be questioned, supposedly with the intent of inducing financial stability. This understanding, however, results in a practical impasse, given that it is assumed that the two objectives cannot be achieved simultaneously. More profoundly, it neglects that stability is a precondition for sustained growth.[17] These two overarching

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Postpones Bank Reform Vote Amid Policy Differences, FIN. TIMES, Jan. 3, 2017, https://www.ft.com/content/589f1ce0-d1a1-11e6-9341-7393bb2e1b51. Finally, on December 7, 2017, the oversight body of the Basel Committee, i.e. the Governors and Heads of Supervision, announced the completion of Basel III, signaling that a political agreement has been reached over the reform process initiated after the global financial crisis. *See* Press Release, Basel Committee on Banking Supervision, Governors and Heads of Supervision Finalise Basel III Reforms (December 7, 2017).

16. As reported by ADMATI & HELLWIG, *supra* note 4, at 9, a plea for a relaxation of capital requirements is often vented by the industry. This stance is also manifested in the industry's responses to public consultations concerning international capital requirements. In this respect, the Basel Committee often took into account whether different proposals for reform have a negative impact on lending to small business. *See* BASEL COMMITTEE ON BANKING SUPERVISION, CONSULTATIVE DOCUMENT: REVISIONS TO THE STANDARDISED APPROACH FOR CREDIT RISK 10 (2015) [hereinafter CONSULTATIVE DOCUMENT]. More recently, it has been often advanced the idea that capital regulation is holding back economic growth by limiting lending activities or that with new capital requirements banks would be "forced" to limit lending activities; *see*, *e.g.*, Gernot Heller, *G20 Review of Banking Rules No Rollback of Regulation: Weidmann*, REUTERS Mar. 19, 2017, http://www.reuters.com/article/us-g20-germany-weidmann-idUSKBN16Q0L5 [https://perma.cc/UW85-Z59W] (archived Mar. 1, 2018).

17. The point is clearly illustrated with reference to the 2007-2009 financial crisis by ADMATI & HELLWIG, *supra* note 4, at 5.

objectives are, in fact, interwoven, as the Financial Sector Assessment Program ("FSAP") of the International Monetary Fund and the World Bank highlights.[18] According to the FSAP, secured credit and the protection of creditors' rights are core components of the legal framework sustaining the soundness of financial systems.[19] More specifically, a modern legal regime for secured transactions is considered to be a factor that facilitates stable economic growth and recovery, especially when it expands financing opportunities for small and medium-sized enterprises.[20] In a similar vein, balancing financial stability and economic growth underscores the definition of an optimal level of mandatory capital reserves that banks must hold.[21] Hence, capital requirements aim at ensuring the stability of both individual banks and the banking system as a whole, without stifling banks' ability to support credit-based economies. In the aftermath of recent financial crises, concerns over financial stability animated the international policy agenda and led to questions of whether capital requirements have been excessively low, thereby resulting in a call for the reassessment of the Basel Accords.[22] Although a first wave of changes contained in the first Basel III instrument adopted in 2011 addressed a number of significant issues, negotiations concerning more fundamental aspects have been completed only after several

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18. *See* IMF, *Review of the Financial Sector Assessment Program: Further Adaptation to the Post-Crisis Era* Policy Paper, (Sept. 2014), http://www.imf.org/external/np/pp/eng/2014/081814.pdf [https://perma.cc/YB6Z-SL5A] (archived Mar. 1, 2018).

19. IMF & WORLD BANK, Financial Sector Assessment: A Handbook 230 (2005).

20. *See* Spiros V. Bazinas, Richard M. Kohn & Louis F. Del Duca, *Facilitating a Cost-Free Path to Economic Recovery—Implementing a Global Uniform International Receivables Financing Law,* 44 UCC L. J. 277, 279 (2012) (noting that the possibility of securing loans with personal property is essential to stimulate economic growth and recovery in developed and developing economies alike). *See* EUROPEAN BANKING AUTHORITY, REPORT ON SMES AND SME SUPPORTING FACTOR (2016). In Europe, economic growth and recovery have been linked to the availability of financing for small- and medium-sized enterprises (SMEs), given that ninety-nine out of one hundred businesses in Europe are SMEs. On the benefits of secured transactions law for SMEs and micro-businesses, see Kozolchyk, *supra* note 2, at 731 (noting that "where commercial credit is available to small- and medium-sized enterprises, micro-enterprises can also become its beneficiaries and poverty is thereby further alleviated").

21. IMF, *Benefits and Costs of Bank Capital* Staff Discussion Note No. SDN/16/04, (Mar. 2016).

22. A study conducted by IMF staff members suggests that doubling, and in certain cases tripling, capital requirements would have been sufficient to absorb losses in most of the past banking crises. *Id.* at 20.

years of extensive consultations.[23] With the adoption of the final version of Basel III in 2017, the Basel Committee initiated the implementation phase. Notwithstanding the efforts to enhance both accuracy and precision in the mechanisms to calculate capital requirements, the Basel framework for personal property collateral remains largely unaffected by the recent reforms and, as such, is still anchored to the framework established prior to the recent financial crises.

At the root of the hiatus between the legal rules governing secured transactions laws and international regulatory standards are the radically different rationales and operational logics that generate dissonances when applied simultaneously, i.e. when banks act as secured creditors while complying with capital requirements. These two branches of law are both aimed at reducing credit risk, but they are characterized by different attitudes towards the level of risk that the banks are allowed to undertake, as it emerges when their core mechanisms and evolution are examined.

A. Secured Transactions Law: National Reforms and International Models

In recent years, national legislators have – more or less successfully – attempted to reorganize the maze of national rules governing security rights in personal property. The common denominator of these reforms is the pursuit of legal simplification and certainty through a more cohesive apparatus of rules in which functionally similar secured transactions are subjected to similar legal

23. During the negotiation phase, the proposals advanced by the Basel Committee were informally labeled as "Basel IV" in consideration of the relevance of the changes that they entailed. Basel IV typically indicated a package of proposed reforms contained in a series of documents. The most relevant set of proposals for the purpose of this investigation are contained in BASEL COMMITTEE ON BANKING SUPERVISION, SECOND CONSULTATIVE DOCUMENT: REVISIONS TO THE STANDARDISED APPROACH FOR CREDIT RISK (2015) [hereinafter SECOND CONSULTATIVE DOCUMENT] and in the BASEL COMMITTEE ON BANKING SUPERVISION, CONSULTATIVE DOCUMENT: REDUCING VARIATION IN CREDIT RISK-WEIGHTED ASSETS – CONSTRAINTS ON THE USE OF INTERNAL MODEL APPROACHES (2016) [hereinafter IRB CONSULTATIVE DOCUMENT]. Most of the proposals advanced by the Basel Committee, including those contained in the aforementioned documents, have been ultimately adopted by the Basel Committee and are included in Basel III. *See* Marcel Magnus, Benoit Mesnard & Alienor Duvillet-Margerit, *Upgrading the Basel Standards: From Basel III to Basel IV?*, EUROPEAN PARLIAMENT (Jan. 18, 2017), for a useful summary of the debate prior to the final adoption of Basel III.

treatment and ultimately to a unitary legal framework.[24] Legal rationalization is ubiquitous in secured transactions law reforms, regardless of whether national law reformers: (1) intend to emulate the legal regimes of Canada and the United States that pioneered the unitary framework lauded by many;[25] (2) were driven by an international impetus involving the adoption of international standards, such as those elaborated by the EBRD and UNCITRAL;[26] or (3) explored a different reform strategy.[27] Even within the same region, legal frameworks are substantially different and countries may be at different stages of the reform process. In Europe, for instance, several countries have reformed national laws along the lines of the EBRD Model Law on Secured Transactions ("EBRD Model Law"),

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24. Simplification was one of the motivating objectives of the drafters of the Uniform Commercial Code (UCC) in the United States; *see* Karl N. Llewellyn, *Problems of Codifying Security Law,* 13 LAW & CONTEMP. PROBS. 687, 690 (1948). For a cogent parallel between the UCC experience and the international process of harmonization and simplification of secured transactions law, see Neil B. Cohen, *Harmonizing the Law Governing Secured Credit: The Next Frontier*, 33 TEX. INT'L L. J. 173 (1998).

25. *See* GRANT GILMORE, SECURITY INTERESTS IN PERSONAL PROPERTY 295 (1965). This option has influenced the debate in numerous legal systems belonging to different legal traditions. For instance, in the United Kingdom, see generally Iwan Davies, *The Reform of Personal Property Security Law: Can Article 9 of the US Uniform Commercial Code be a Precedent?*, 37 INT'L & COMP. L. Q. 465 (1988). In Central European countries, see Tajti, *supra* note 2. In France, see generally, JEAN FRANÇOIS RIFFARD, LE SECURITY INTEREST OU L'APPROCHE FONCTIONNELLE ET UNITAIRE DES SÛRETÉS MOBILIÈRES: CONTRIBUTION À UNE RATIONALISATION DU DROIT FRANÇAIS (1997) (Fr.). Finally, in Latin America, see Marek Dubovec, *UCC Article 9 Registration System for Latin America*, 28 ARIZONA J. INT'L & COMP. L. 117 (2011).

26. On the principles of the EBRD MODEL LAW, *see infra* note 42, see Frederique Dahan, *Law Reform in Central and Eastern Europe: The Transplantation of Secured Transactions Laws*, 2 EUR J. L. REFORM 369 (2000). For an example of the influence of UNCITRAL instruments in guiding national reforms, in the African context, see e.g., Marek Dubovec and Cyprian Kambili, *Secured Transactions Reform in Malawi – The 2013 Personal Property Security* Act *in* SECURED TRANSACTIONS LAW REFORM: PRINCIPLES, POLICIES, AND PRACTICE 391 (Louise Gullifer & Orkun Akseli eds., 2016) [hereinafter STLR: PRINCIPLES, POLICIES, AND PRACTICE].

27. As an alternative to the blunt transposition of North American models, different strategies have been utilized. In the European context, see generally Giuliano G. Castellano, *Reforming Non-Possessory Secured Transactions Laws: A New Strategy?* 78 MOD. L. REV. 611 (2015) (indicating the reform of publicity rules, with the implementation of a filing system to regulate priority represents a viable reform strategy to start more comprehensive reforms in many European jurisdictions).

e.g., Hungary, Romania and Slovakia.[28] In Belgium, a new law inspired by international standards was recently adopted with the intent of rationalizing the regime established by the civil code.[29] In France, the work of the Grimaldi Commission led to a partial reform of the civil and commercial codes and further amendments are expected to align French secured transactions law with the UNCITRAL Model Law.[30] Similarly, in Italy, a new non-possessory pledge was introduced, albeit more comprehensive reforms are demanded by many.[31] In the United Kingdom, secured transaction law is not in line with international standards and reforms have been debated for over five decades.[32] Although few statutory interventions have been made, the wind of change seems to be blowing again and new concrete proposals have been advanced for a more comprehensive reform of English law.[33] In general, the number of

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28. Katarína Mathernová, *The Slovak Secured Transactions Reform: Ingredients of a Successful Reform and Reflection on its Achievements*, *in* SECURED TRANSACTIONS REFORM AND ACCESS TO CREDIT 207 (Frederique Dahan & John Simpson eds., 2008).

29. Loi modifiant le Code Civil en ce qui concerne les sûretés réelles mobilières et abrogeant diverses dispositions en cette matière [Act to Amend the Civil Code with Respect to Security Rights and to Repeal Various Security Provisions] of July 11, 2013, MONITEUR BELGE [M.B.] [Official Gazette of Belgium], Aug. 2, 2013 [hereinafter Belgian Pledge Act]. The Act is not fully operational yet; for a comment, see Eric Dirix, *The Belgian Reform on Security Interests in* STLR: PRINCIPLES, POLICIES, AND PRACTICE, *supra* note 26 at 391; Ivan Peeters and Michiel de Muynck, *Belgium Moves to Modernity but Only Half Way: The Introduction of New Legislation on Security Interests in Movable Assets*, 29 J. INT'L BANKING & FIN. L. 75 (2014).

30. *See* Jean François Riffard, *The Still Uncompleted Evolution of the French Law on Secured Transactions towards Modernity*, *in* STLR: PRINCIPLES, POLICIES, AND PRACTICE, *supra* note 26, at 369; Muriel Renaudin, *The Modernisation of French Secured Credit Law: Law as a Competitive Tool in Global Markets*, 24 INT'L COMPANY & COM. L. REV. 385 (2013).

31. Decreto Legge 30 giugno 2016, n. 119, G.U. Feb. 7, 2016, n. 153 (It.) [hereinafter Italian Non-possessory Pledge Law]. For an early analysis on the reform debate in Italy, see Guido Ferrarini, *Changes to Personal Property Security Law in Italy: A Comparative and Functional Approach*, *in* MAKING COMMERCIAL LAW: ESSAYS IN HONOUR OF ROY GOODE 477 (Ross Cranston ed., 1997). For a more recent comment, see Anna Veneziano, *Italian Secured Transactions Law: the Need for Reform*, *in* STLR: PRINCIPLES, POLICIES, AND PRACTICE, *supra* note 26, at 355.

32. The initiatives to reform English law may be traced back to the BOARD OF TRADE, REPORT OF THE COMPANY LAW COMMITTEE, 1962, Cmnd. 1749 (U.K.). A number of subsequent proposals have followed. For a complete account, see HUGH BEALE ET AL., *supra* note 2, ¶ 23.01ff.

33. A more comprehensive reform is advocated by the Secured Transactions Law Reform Project. *See* Secured Transactions Law Reform Project, *Policy Paper*, SECUREDTRANSACTIONSLAWREFORMPROJECT.ORG (Apr. 2016), https://stlrp.files.wordpress.

legal systems – within and outside the European Union – that have adopted new laws, or are currently considering reforming their current legal regime to establish proprietary entitlements in personal property, is constantly growing.

To North American lawyers – who are acquainted with the uniformity brought by Article 9 of the Uniform Commercial Code and by the Canadian Personal Property Security Acts – the lack of a harmonized, EU-wide legal framework for secured transactions might appear peculiar. In the European Union, the effort to harmonize national secured transactions laws has been confined within the European Draft Common Frame of Reference ("DCFR"), which in its Book IX elicits the core principles for a pan-European secured transactions law.[34] The DCFR, however, remains an academic exercise, as it has not been incorporated into any domestic legislation of EU Member States. Rather than providing a general legal framework for secured credit, EU legislatures have followed different avenues, harmonizing either rules pertaining to specific types of collateral and secured transactions or provisions related to areas that are contiguous to secured transactions law, and outside the scope of this investigation, such as retention of title clauses in the context of late payments and cross-border insolvency.[35] To the first category belongs the Financial Collateral Directive ("FCD") that establishes a set of rules, implemented across the European Union, for transactions secured with credit claims and financial collateral, i.e. cash and financial instruments.[36] Although implemented to promote free

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com/2016/05/str-general-policy-paper-april-2016.pdf [https://perma.cc/6N3H-M77R] (archived Mar. 3, 2018). Moreover, the Financial Law Committee of the City of London Law Society has been pressing for the implementation of a Secured Transactions Law Code. *See* Richard Calnan, *A Secured Transactions Code*, 30 J. INT'L BANKING & FIN. L. 473 (2015).

34. PRINCIPLES, DEFINITIONS AND MODEL RULES OF EUROPEAN PRIVATE LAW: DRAFT COMMON FRAME OF REFERENCE (DCFR) (Christian von Bar et al. eds., 2010) (2009) [hereinafter DCFR]; *See generally* ULRICH DROBNIG & OLE BÖGER, PROPRIETARY SECURITY IN MOVABLE ASSETS (2015).

35. For an overview and critique of the EU legislative efforts to offer a harmonized legal framework for secured transactions, see Anna Veneziano, *European Secured Transactions Law at a Cross-Road*, *in* ENGLISH AND EUROPEAN PERSPECTIVES ON CONTRACT AND COMMERCIAL LAW: ESSAYS IN HONOUR OF HUGH BEALE 405ff (Louise Gullifer & Stefan Vogenauer eds., 2014). On the EU cross-border insolvency regime, see generally Gerard McCormack, *Something Old, Something New: Recasting the European Insolvency Regulation*, 79 MOD. L. REV. 121 (2016).

36. Directive 2002/47/EC of the European Parliament and of the Council of 6 June 2002 on Financial Collateral Arrangements as Regards Linked Systems and Credit Claims, 2002 O.J.

movement of capital and financial stability within the European single market, the FCD touches upon some of the core aspects of national secured transactions laws.[37] Aside from some aspects concerning financial collateral, in the EU, secured transactions are governed by national laws. Court interpretations, doctrinaire constructions and statutory provisions define the traits of a variety of consensual instruments that secure the fulfillment of an obligation through an entitlement over collateral in every European Union jurisdiction. Charges, contractual liens and pledges are some of the fundamental security instruments encountered in European legal systems to take personal property as collateral.[38] The list further expands when title-based financing, such as financial leases and retention of title clauses, are considered.[39] Hence, with few and limited exceptions, like Belgium,[40] European legal systems have not attempted to adopt a unitary, functionally-based approach and different legal categories and security instruments often coexist at the national level.

1. The Rationale of Secured Transactions Law: Party Autonomy and UNCITRAL Model Law

Absent an internationally harmonized secured transactions law, its ethos is to be sought in the core areas that are common to any legal framework regulating security rights over personal property. These areas pertain to: (1) the creation of security rights over a wide range of assets without dispossession of the debtor; (2) the priority status of security rights against competing claims; (3) the enforcement of security rights through judicial or extra-judicial mechanisms; and (4)

L. 168/43, as amended by Directive 2009/44/EC, 2009 O.J. L. 146/37 and by Directive 2014/59/EU, 2014 O.J. L. 173/190 [hereinafter FCD].

37. On the issues related to the implementation of the FCD, see e.g., Louise Gullifer, *What Should We Do About Financial Collateral?*, 65 C.L.P. 377 (2012).

38. *See, e.g.*, Castellano, *supra* note 27, at 614-16 (noting that even if even if the commercial use of these different security instruments is substantially similar, considerably different legal rules apply, depending on the formal categorization of each and every instrument).

39. On the variety of instruments belonging to this category, see 2 PHILIP R. WOOD, COMPARATIVE LAW OF SECURITY INTERESTS AND TITLE FINANCE ¶¶ 33-003ff (2007). On leasing in US law, see Peter W. Schroth, *Financial Leasing of Equipment in the Law of the United States*, 58 AM. J. COMP. L. 323 (2010).

40. On the Belgian reform, see generally, *supra* note 29.

the public disclosure of the potential existence of security rights.[41] In general terms, promoting private negotiations is the primary rationale of secured transactions law. Hence, party autonomy represents a fundamental tenet that permeates, to a different extent, all these four areas. Nonetheless, limits to contractual autonomy result from a balance, underscoring various legal rules, among the interests of the parties affected by the security instrument. The provisions elaborated by UNCITRAL offer a privileged perspective to illustrate these points.

The UNCITRAL Model Law on Secured Transactions ("UNCITRAL Model Law") – adopted in July 2016 – epitomizes the ongoing effort to assist national law reformers in "modernizing," to use UNCITRAL's terminology, their secured transactions laws.[42] The pivot of the UNCITRAL Model Law is the extensive deference to party autonomy. Following a unitary, functionally-based approach, any proprietary entitlement in personal property (movable assets) "that is created by an agreement to secure payment or other performance of an obligation" is considered a security right, regardless of the denomination attributed to it by the parties.[43] This

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41. These core elements emerge from various international standards. *See Core Principles for a Secured Transactions Law*, EUR. BANK FOR RECONSTRUCTION & DEV., http://www.ebrd.com/cs/Satellite?c=Content&cid=1395238854769&d=&pagename=EBRD%2FContent%2FDownloadDocument (last visited Oct. 23, 2017); WORLD BANK, PRINCIPLES FOR EFFECTIVE INSOLVENCY AND CREDITOR/DEBTOR REGIMES (2016); UN COMM'N ON INT'L TRADE (UNCITRAL) LEGISLATIVE GUIDE, ON SECURED TRANSACTIONS (2010). In the literature, see John Armour, *The Law and Economics Debate About Secured Lending: Lessons for European Lawmaking? in* THE FUTURE OF SECURED CREDIT IN EUROPE 14 (Horst Eidenmüller & Eva Maria Kieninger eds., 2008).

42. UNCITRAL'S terminology differs from the one adopted by North American legal systems. For instance, in the UNCITRAL Model Law on Secured Transactions, "security interests" are referred to as "security rights," "secured parties" as "secured creditors," "collateral" as "encumbered asset," and "debtor" as "grantor." MODEL LAW ON SECURED TRANSACTIONS 102, 9 (UNCITRAL 2016) [hereinafter UNCITRAL MODEL LAW].

43. UNCITRAL MODEL LAW, *supra* note 42, art. 2(ii). The EUREuropean Bank for Reconstruction & Dev., Model Law on Secured Transactions does not adopt a functional approach. Instead, art. 6.1 recognizes three types of charges: a registered charge, an unpaid vendor's charge and a possessory charge. *See* MODEL LAW ON SECURED TRANSACTIONS 6.1 (EUR. BANK FOR RECONSTRUCTION & DEV. 2004) [hereinafter EBRD MODEL LAW]. Likewise, the DCFR follows a functional approach, whilst distinguishing between "security right in movable assets" and "retention of ownership devices." DCFR *supra* note 35, ch. IX, § 1. In contrast, the Belgian Pledge Act, *supra* note 29, retained the traditional nomenclature of security rights, including the terms and concepts of pledge (*droit de gage/pandrecht)*, retention of title (*réserve de propriété/eigendomsvoorbehoud*) and legal lien (*droit de rétention/retentierecht*).

means that consensual security instruments performing similar economic functions are subjected to the same legal treatment and the parties to a security agreement are not required to establish the correct formal qualification of their transaction in order to determine the relevant legal treatment.[44] Additionally, minimal requirements are imposed to create a security right. For instance, a general description of the encumbered assets is sufficient.[45] The principles of party autonomy and minimal formalities influence different rules, such as those governing perfection, i.e. effectiveness against third parties and the enforcement of security rights. Parties are, thus, free to choose either control or registration to perfect their security rights in financial collateral.[46] In turn, registration, for any kind of collateral, follows a notice-filing approach, whereby a standardized form requiring skeletal information suffices to achieve perfection.[47] Therefore, the registry represents a tool to promote private negotiations by publicizing the potential existence of a security right and by generally determining the priority following the first-to-file principle.[48] Party autonomy is buttressed not solely by provisions affecting the secured creditor-debtor relationship, it also extends to the relationship between two secured creditors who might consensually alter their order of priority, i.e. in a subordination agreement.[49] Hence, the

44. STEVEN L. HARRIS & CHARLES W. MOONEY, JR., SECURITY INTERESTS IN PERSONAL PROPERTY: CASES, PROBLEMS AND MATERIALS 84-85 (6th ed. 2015); ANTHONY J. DUGGAN & JACOB S. ZIEGEL, SECURED TRANSACTIONS IN PERSONAL PROPERTY: CASES, TEXT, AND MATERIALS 20-21 (6th ed. 2013). For an argument to extend the scope of application beyond the functional equivalents to long-term leases and commercial consignments, see Catherine Walsh, *Transplanting Article 9: The Canadian PPSA Experience*, *in* STLR: PRINCIPLES, POLICIES, AND PRACTICE, *supra* note 26, at 49, 83-85.

45. *See* UNCITRAL MODEL LAW, *supra* note 42, art. 6 & 9; *See* EBRD MODEL LAW, *supra* note 43, art. 5.5.

46. *See* UNCITRAL MODEL LAW, *supra* note 42, art. 26; DCFR, *supra* note 34, ch. IX, § 3:204. FCD states: "Member States shall not require that the creation, validity, perfection, enforceability or admissibility in evidence of a financial collateral arrangement or the provision of financial collateral under a financial collateral arrangement be dependent on the performance of any formal act." FCD, *supra* note 36, art. 3. In Belgium, a security right in receivables may be perfected by control when the secured creditor notifies the receivables obligor. *See* Belgian Pledge Act, *supra* note 29, art. 60.

47. *See* UNCITRAL MODEL LAW, *supra* note 42, art. 18; DCFR, *supra* note 34, ch. IX, § 3:102(1).

48. *See* UNCITRAL MODEL LAW, *supra* note 42, art. 19(2), 23 & 24; DCFR, *supra* note 34, ch. IX, § 4:101(2).

49. *See* UNCITRAL MODEL LAW, *supra* note 42, art. 41; DCFR *supra* note 34, ch. IX, § 4:108(1).

underlying rationale of the Model Law is that by establishing a simplified set of rules that clearly defines the rights and obligations of the parties entering into, or affected by, a secured transaction, private negotiations are facilitated. In this regard, parties are free to satisfy their idiosyncratic interests and risk appetites.

2. Beyond Party Autonomy: Balancing Conflicting Interests

National legal regimes may depart from the principles enshrined in the UNCITRAL or EBRD model laws. Nonetheless, a common operational logic may be isolated. The various rules regulating creation, perfection, priority, and enforcement of security rights are ultimately concerned with striking a balance among (often) antithetic interests of three categories of affected parties, namely debtors, secured creditors and competing claimants who may be buyers of the collateral and creditors who have acquired an interest in the collateral under a court decision. In addition, national bankruptcy laws insert into the mix another category of competing claimants, i.e. preferential, or statutory, claimants, which include employees for owed wages and tax authorities. As different interests are balanced, party autonomy results necessarily limited. The degree of this limitation varies across legal systems.

In consideration of the historical and cultural contexts in which a given rule developed, a greater level of protection to one of these categories is granted. A few examples will illustrate this point. In North American legal systems, the concept of "commercial reasonableness" serves as a check against the great degree of freedom accorded to secured creditors to determine the method and manner of disposition of the collateral.[50] Under English common law, the core distinction between floating and fixed charges has been developed by courts precisely to balance different interests.[51] In fact, a charge is characterized as floating if the debtor maintains control over the collateral. However, in such a circumstance, the secured creditor (charge holder) enjoys a lower priority status, as compared to the holder of a fixed charge, and part of the charged assets must be

50. CUMING, WALSH & WOOD, *supra* note 3, at 29; HARRIS & MOONEY, *supra* note 44, at 638.

51. On the distinction between floating and fixed charges, among others, see GOODE, *supra* note 3, at 136.

apportioned to unsecured creditors.[52] Another example of this balance is offered by the rules concerning the rights of buyers over encumbered assets sold outside the ordinary course of business. Pursuant to Article 26 of the Model Registry Provisions in the UNCITRAL Model Law, a security right is not extinguished when the encumbered asset is sold by the debtor outside the ordinary course of business without the authorization of the secured creditor. However, if further proprietary entitlements are created on the same asset, striking the balance between different interests becomes more problematic. If the buyer creates a security right in the purchased asset in favor of another creditor, the buyer's secured creditor would encounter difficulties in ascertaining the existence of prior security rights because searching the registry against the identifier of the buyer would not disclose the encumbrance created by the seller of the asset.[53] Hence, the rule that allows for a security right to continue without an amendment of the registered notice that adds the buyer as the new grantor after the collateral has been transferred favors the first secured creditor over the transferee's secured creditors. The logic of this rule is that the transferee's secured creditor should have conducted due diligence beyond the registry record. However, the desire to protect the secured creditors of the buyer, *inter alia*, has led legislators to design a rule that imposes a duty on the secured creditor of the seller to amend the registered notice within a period of time after the sale of the asset.[54]

Further limits to party autonomy emerge in different contexts. For instance, civil codes belonging to the Romano-Germanic tradition often limit secured creditors' freedom to secure their loans with excessive collateral.[55] Although common law systems typically allow secured creditors to avail themselves of any remedies set forth in the

52. Insolvency Act, 1986 (as amended), c. 45, § 175 & 176A, sch. B1, ¶ 65(2) (Eng.) [hereinafter Insolvency Act].

53. UNCITRAL, GUIDE ON THE IMPLEMENTATION OF A SECURITY RIGHTS REGISTRY 51-52 (2014) [hereinafter REGISTRY GUIDE].

54. *See* CUMING, WALSH & WOOD, *supra* note 3, at 263. Moreover, Walsh notes that "…requiring the record to be updated only once actual knowledge is acquired would seem to offer sufficient protection to subsequent secured creditors." Walsh, *supra* note 44 at 75.

55. A practice known as overcollateralization. *See* Tajti, *supra* note 2, at 175; Brinkmann, *The Peculiar Approach of German Law in the Field of Secured Transactions and Why it has Worked (So Far)*, *in* STLR: PRINCIPLES, POLICIES, AND PRACTICE, *supra* note 26, at 339, 346.

security agreement,[56] in civilian traditions, enforcement rules and procedures are often statutorily determined and may not be waived by the parties.[57] Limitations to contractual freedom as a result of a balancing exercise among different interests also emerge from the discussion concerning the ability to create a security right in receivables when a ban on assignments has been agreed upon by the debtor and the obligor of the receivable, i.e. those who owe payment on a receivable. When a ban on assignment is statutorily overridden, the legal regime privileges – at the expense of the parties' contractual freedom – the interests of debtors, who may then assign receivables irrespective of a restriction stipulated by the agreement that generated such receivables.[58]

In consideration of the variety of legal solutions stemming from the rationale and the operational logic underscoring secured transactions regimes, international soft-laws represent a consensus among various, domestic legal doctrines and approaches.[59] Such a consensus, achieved in United Nations' boardrooms populated by commercial law lawyers, is now tested against the requirements of prudential regulation. In fact, whilst the rules pertaining to secured transactions reflect a balance among the interests of different parties, it remains to be ascertained whether a given rule favoring one of the affected parties is to be preferred from a prudential regulatory

56. This is the case in English Law. *See* GOODE, *supra* note 3, ¶¶ 4-65. *Contrast* with Part 6 of UCC Article 9 that "departs from the UCC's general emphasis on freedom of contract…contains a number of rules that cannot be waived or varied." HARRIS & MOONEY, *supra* note 44, at 578.

57. This is the case for Italy, where enforcement mechanisms are established by the law and vary depending on the security instrument deployed. The new non-possessory pledge allows secured creditors, if expressly established in the agreement, to retain possession of the encumbered assets or dispose of them, provided that debtors are compensated for any profit exceeding the secured value. *See* Italian Non-possessory Pledge Law, *supra* note 31, art. 1(6). Moreover, DCFR ch. IX, § 7:101(2) requires that a security right is perfected before the secured creditor may enforce it if third parties are involved. Furthermore, § 7:102 states that: "As between the enforcing secured creditor and the security provider, the rules of this Chapter are mandatory, unless otherwise provided."

58. UNCITRAL MODEL LAW, *supra* note 42, art. 13. For the UK law, see Michael Bridge, *The Nature of Assignment and Non-assignment Clauses*, 132 L. Q. R. 67 (2016), noting that "the expected secondary legislation nullifying non-assignment clauses will restore the marketability in the area of receivables financing."

59. For an early contribution on the difficulties in reaching a consensus in this area, see Ulrich Drobnig, *Study on Security Interests*, 8 UNCITRAL Y.B. 171, U.N. Doc. A/CN.9/131 (1977) (and Annex).

perspective. Addressing this core question will lead to a reconsideration of well-established legal principles, such as those defining the priority status of floating charges or the desirability of bans on assignments. More profoundly, it emerges that informed analyses of secured transactions law and its reform require taking into account the regulatory dimension affecting the extension of credit through the banking system.

B. Prudential Regulation: Crisis-driven International Standards

Prudential regulation, as it is the case for most regulatory interventions, performs an ambivalent role by accommodating conflicting interests with the objective of mitigating the risks associated with activities otherwise beneficial for society, like the extension of credit. Unlike other businesses however, banks are highly leveraged, with low levels of equity, and thus particularly exposed to the risk of default.[60] Within a fractional-reserve system, banks hold only a portion of the capital raised and convert most of it into means of production.[61] Long-term investments, like loans, are

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60. This is an inner feature of the banking business. *See* ADMATI & HELLWIG, *supra* note 4, at 51; CARNELL, MACEY & MILLER, *supra* note 4, at 252; and JOHN ARMOUR ET AL., *supra* note 5, at 291 (noting that if banks were wholly funded by equity and in their balance sheets only liquid assets were permitted, they would not be able to operate and extend credit to the economy). As shown in detail in this Section, capital regulation is concerned precisely with reducing banks' leverage and ensuring sufficient liquidity of banks, by increasing the amount of own funds.

61. Traditional accounts indicate that banks are intermediaries, implying that new loans are created inasmuch as deposited savings are available. However, central bankers and leading economists have indicated that deposits are created through loans. This is because every time a loan is created a new deposit is also established. Given that deposits represent purchasing power, commercial banks in essence create money, broadly conceived. *See*, *e.g.*, Michael McLeay et al., *Money creation in the modern economy* (BANK OF ENG, Quarterly Bulletin 2014. Q. BULL. 2014); Todd Keister & James J. McAndrews, *Why Are Banks Holding So Many Excess Reserves?* Federal Reserve Bank of New York, Staff Report No. 380, (2009). The limits to deposit creation (through loans) relates to market pressures and monetary policy constraints. *See* James Tobin, *Commercial Banks as Creators of "Money"* (Cowles Foundation for Research in Economics, Discussion Paper No. 159, 1963) (indicating reserves as one of the limits to the creation of loans). In legal scholarship the point has been noted by several commentators pointing at profound implications for financial regulation. *See* Robert Hockett & Saule Omarova, *The Finance Franchise*, 102 CORNELL L. REV. 1143 (2017) (describing the banking system as a public-private partnership in which public actors accommodate and monetize private liabilities); MORGAN RICKS, THE MONEY PROBLEM: RETHINKING FINANCIAL REGULATION (2016) (defining the relationship between banking, financial instability, and private money creation as the "money problem"); and Dan Awrey,

thus funded largely by short-term liabilities, like deposits.[62] As a result of this maturity mismatch in the balance sheets, banks are required to manage a variety of risks, most importantly, credit risk, i.e. the risk of borrowers not repaying their long-term obligations,[63] and liquidity risk, i.e. the risk of not having sufficient cash to meet short-term obligations.[64] Moreover, given the inner complexities characterizing modern banking activities, banks are increasingly more exposed to operational risk that is represented by the potential loss resulting from failures in internal processes and systems (including those deployed to manage the aforementioned risks) or from external events.[65] Failures in the management of those risks may, depending on various factors, result in the default of individual banks with negative implications for depositors, other creditors and for the "real economy," i.e. the part of the economic system concerned with the production and the trade of goods and services. Similarly, economic or financial turmoil may distress individual banks, generating an adverse feedback loop, whereby a diffused accruement of credit risk and a decline in available liquidity, due, for instance, to a contagion effect, hinder banks' ability to manage risk and in turn exacerbate economic downturns.[66] In his seminal work, Hyman Minsky

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Brother, Can You Spare a Dollar? Designing an Effective Framework for Foreign Currency Liquidity Assistance COLUM. BUS. L. REV. 934 (2017) (noting that, in the context of the Eurodollar market, the ability of financial institutions to create currency liabilities impacts on the ability of central banks to provide assistance in case of liquidity shortage).

62. Even if banks do not lend out deposits, but they create credit, deposits can still be used to fund loans. Simply, the amount of savings held by a bank does not represent per se a limit to the banks' ability of creating loans. For a discussion on this point and its implications on capital regulation, see Castellano & Dubovec, *Credit Creation: Reconciling Legal and Regulatory Incentives, supra* note 6.

63. Credit risk is defined as the risk that borrowers may not meet their obligations and relates to non-trading activities. BASEL COMMITTEE ON BANKING SUPERVISION, PRINCIPLES FOR THE MANAGEMENT OF CREDIT RISK 1 (2000).

64. For an overview of the different connotations of liquidity in the banking system, see Kleopatra Nikolaou, *Liquidity (Risk) Concepts: Definitions and Interactions* (Eur. Cent. Bank, Working Paper No. 1008, 2009).

65. *See* BASEL III, *supra* note 13, at 128.

66. The literature on bank crises is vast. Contagion is generally indented as a herd behavior, whereby investors (or depositors) simultaneously withdraw funds from financial institutions, regardless of whether those institutions are in distress. Thus, bank failures are not contingent on insolvency. Contagion is, in fact, a liquidity crisis, inherent to the financial institutions financed through short-term borrowing. *See generally* HAL S. SCOTT, CONNECTEDNESS AND CONTAGION: PROTECTING THE FINANCIAL SYSTEM FROM PANICS (2016) (highlighting that contagion has been the most destructive phenomenon in financial

advanced the idea that financial instability is a cyclical phenomenon that escalates through different phases fueled by an uncontrolled accumulation of debt that may become excessive and eventually cannot be repaid.[67] Thus, the effective management of credit risk and maintenance of sufficient liquidity are essential for both the proper functioning of banks and the stability of the financial and economic systems.

The core mechanism to manage those risks is represented by banks' own funds that are traditionally divided into economic capital, determined by banks, and regulatory capital, prescribed by regulators.[68] While banks have developed sophisticated techniques to calculate economic capital, the limited liability structure, together with corporate governance and compensation mechanisms, may incentivize managers to hold less capital.[69] Given that own funds are more expensive than borrowed funds,[70] management is incentivized

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markets and played a critical role in the 2008 financial crisis). For the economic literature on the interplay between financial stability, liquidity and credit risk, see generally Douglas W. Diamond & Raghuram G. Rajan, *Liquidity Shortages and Banking Crises*, 60 J. FIN. 615 (2005).

67. *See generally* HYMAN P. MINSKY, CAN "IT" HAPPEN AGAIN? ESSAYS ON INSTABILITY AND FINANCE (2015) (1982). Similar considerations have been advanced by CHARLES P. KINDLEBERGER, MANIAS, PANICS, AND CRASHES: A HISTORY OF FINANCIAL CRISES (1978).

68. The distinction is ubiquitous in financial economics. *See generally* George G. Kaufman, *Capital in Banking: Past, Present and Future*, 5 J. FIN. SERV.. RES. 385 (1992). *See* FRANS DE WEERT, BANK AND INSURANCE CAPITAL MANAGEMENT 21 (2011); PIETER KLAASSEN & IDZARD VAN EEGHEN, ECONOMIC CAPITAL: HOW IT WORKS AND WHAT EVERY MANAGER NEEDS TO KNOW 2 (2009).

69. *See* INTERIM REPORT TO THE G7 FINANCE MINISTERS AND CENTRAL BANK GOVERNORS (Financial Stability Forum 2008). For lucid analysis of the relationship between bank's corporate governance and financial stability, see Emilios Avgouleas & Jay Cullen, *Excessive Leverage and Bankers' Pay: Governance and Financial Stability Costs of a Symbiotic Relationship*, 21 COLUM. J. EUR. L. 1 (2015). For a behavioral approach explaining the incentives to acquire excessive risk, see Emilios Avgouleas, *The Global Financial Crisis, Behavioural Finance and Financial Regulation: In Search of a New Orthodoxy*, 9 J. CORP. L. STUD. 23 (2009).

70. The Modigliani-Miller theorem on corporate finance posits that the value of a firm is not affected by its capital structure. Hence, whether a firm deploys primary equity or debt does impact, or has a minimal impact, on the cost of financing. *See* Franco Modigliani & Merton H. Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment,* 48 AM. ECON. REV. 261, 265-81 (1958). However, it is commonly recognized that for banks debt is less expensive than equity, due to lower taxes attached to debt instruments and because deposits are protected by, implicit or explicit, public guarantees. *See* ARMOUR ET AL., *supra* note 5, at 310-311; ADMATI & HELLWIG, *supra* note 4, at 110-11.

to decrease the level of protection and instead engage in investments that maximize shareholders' value and returns in the short term. This may result in excessive risk-taking, insufficient liquidity, and, ultimately, undercapitalization. It is precisely in an effort to address these issues that further mandatory requirements impose on banks an additional layer of capital, known as "regulatory capital."[71] Historically, regulatory capital – mirroring the role of economic capital – has been devised to perform a micro-prudential function; namely, to decrease the odds of an individual bank's failure, both by strengthening its ability to absorb unexpected losses and by preventing excessive risk-taking.[72] As demonstrated by the treatise of the recent developments in international capital requirements, prudential regulation has been increasingly geared to address the overall stability of the banking system.[73] Hence, the resulting regulatory framework is aimed at ensuring the soundness of individual banks (micro-prudential regulation) and the entire banking system (macro-prudential regulation) by controlling the amount of funds that banks can convert into investments.

The preventive rationale of prudential regulation is reflected in the provisions establishing minimum capital requirements. In general terms, a bank's regulatory capital should be, at any point in time, equal to (or greater than) a minimum level that is set through a fixed percentage of the bank's overall economic resources, including loans and other investments. Because the value and the exposure associated with banks' investments are floating, the amount and the composition of regulatory capital vary widely over time. For each and every lending operation, banks should calculate a capital charge, which is a percentage of the total amount of regulatory capital and is determined

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71. *See* Castellano & Dubovec, *Credit Creation: Reconciling Legal and Regulatory Incentives*, *supra* note 6, at n.60 and accompanying text, indicating that given that banks are considered to create credit, capital regulation represents a tool to control the creation of credit (and thus of debt) in the economy.

72. On the distinction between micro-prudential and macro-prudential regulation, see *infra* note 106 and related treatise in the text. In general terms, the role of capital requirements is ascribed to the preventive function of prudential regulation, whereby rules are established to ensure the soundness of financial institutions. *See* ROSS CRANSTON, EMILIOS AVGOULEAS, KRISTIN VAN ZWIETEN, CHRISTOPHER HARE & THEODOR VAN SANTE, PRINCIPLES OF BANKING LAW 31 (3d ed. 2018) (noting, inter alia, that prudential regulation comprises the rules "to keep financial institutions safe and as a going concern").

73. *See id* and *infra* note 97 and accompanying text.

in proportion to the level of risk, i.e. exposure, posed by that operation.[74] The basic formula to compute capital charges thus multiplies the regulatory capital percentage by the risk-weighted coefficient that is determined for any given lending operation. The operational logic characterizing this process may be defined as risk-based. This means that capital requirements are crafted to ensure that higher risk exposures result in higher risk-weighted coefficients and thus higher capital charges. It follows that, differently from what has been noted for secured transactions law, in prudential regulation, the level of risk taken by banks is a matter of law and is governed through the statutory provisions prescribed by capital requirements.

1. International Capital Requirements: Evolution and Current Approach

Following a series of bank failures in the 1970s, the Basel Committee was tasked with the drafting of harmonized standards ensuring capital adequacy of internationally active banks.[75] The centerpiece of this effort is reflected in the Basel Capital Accords, representing an internationally coordinated set of administrative rules. Even though the Accords, like the UNCITRAL Model Law, are not legally binding under international law, they have been implemented as binding rules in most jurisdictions.[76] Since the First Basel Accord ("Basel I"), adopted in 1988, the definition of minimum capital requirements has followed a tortuous path of multiple refinements, political compromises and critiques.[77] Basel I – through a relatively straightforward methodology – achieved the primary objective of

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74. For a discussion on the basic principles applicable to computing regulatory capital, see DE WEERT, *supra* note 68, at 75; Gordy, Heitfield & Wu, *supra* note 5, at 552.

75. In particular, the Basel Committee was established in response to the failure and liquidation of the Herstatt Bank in 1974. The Herstatt Bank was liquidated by German authorities before it could satisfy its obligations owed to American counterparties. Its collapse was followed in the same year by the failure of the Franklin National Bank in New York, with ripple effects on international financial markets. *See* BRUMMER, *supra* note 9, at 99; GOODHART, *supra* note 9, at 31-35.

76. For a progress report on the implementation of the Basel framework, see BASEL COMM. ON BANKING SUPERVISION, PROGRESS REPORT ON THE IMPLEMENTATION OF THE BASEL REGULATORY FRAMEWORK (2013), http://www.bis.org/publ/bcbs247.pdf [https://perma.cc/Z48V-B5YB] (archived Mar. 3, 2018).

77. For a critical appraisal of BASEL II and its development, see generally DANIEL K. TARULLO, BANKING ON BASEL: THE FUTURE OF INTERNATIONAL FINANCIAL REGULATION (2008).

imposing a minimum threshold for regulatory capital (at eight percent). However, discrepancies in national implementations and the lack of sufficient risk-sensitivity to compute capital charges ultimately undermined its effectiveness – particularly with respect to maintaining consistency across jurisdictions – and led to its revision and replacement with the adoption of Basel II.[78]

Basel II, initially published in 2004 and further revised in 2006, introduced a three-pillar structure.[79] The first pillar defined new capital requirements, refining and expanding the risk-weighted method with the inclusion of new and adjusted parameters for various risk-exposures and a menu of three methodologies that banks could employ to determine their regulatory capital. Under the basic methodology, drawn from Basel I and referred to as "standardized approach," Basel II has statutorily prescribed the risk-weight parameters to calculate capital charges in accordance to the riskiness of various operations.[80] With the introduction of two additional Internal Rating-Based ("IRB") methodologies,[81] banks have been allowed, upon regulatory approval, to adopt their own models to adjust the risk-weighted coefficients and ultimately benefit from lower capital charges. In other words, in an attempt to alleviate the costs of compliance and monitoring, the introduction of IRB methodologies has elevated the models used by the industry for the calculation of economic capital to legal standards for the computation of regulatory capital.[82]

The use of internal models to determine regulatory capital was a novelty in banking regulation. Today, it represents a rather established regulatory technique adopted not only in financial regulation, known in the literature as "meta-regulation" or "enforced

78. *Id* at 122.

79. *See* BASEL II, *supra* note 12, at 6. Although in the European Union every bank operating in the single market was subjected to Basel II, in the United States, small banks were exempted and have been regulated under Basel I. *See* SCOTT & GELPERN, *supra* note 5, at 605.

80. For a comparison of the different risk-weightings set forth by Basel I and Basel II, see SCOTT & GELPERN, *supra* note 5, at 588-92 and 596-601; *see also* Kern Alexander, *The Role of Capital in Supporting Financial Stability*, *in* THE OXFORD HANDBOOK OF FINANCIAL REGULATION 344 (Niamh Moloney, Eilis Ferran & Jennifer Payne eds., 2015).

81. The two methodologies are the Foundation Internal Rating-Based (F-IRB) and the Advanced Internal Rating-Based (A-IRB). The latter allows banks to determine most of the parameters of the formula to calculate capital charges.

82. *See* BASEL COMM. ON BANKING SUPERVISION, THE NEW BASEL CAPITAL ACCORD: AN EXPLANATORY NOTE (2001) [hereinafter AN EXPLANATORY NOTE].

self-regulation."[83] Regulators, instead of prescribing how regulated entities should comply with regulatory principles, require regulated entities to, first, develop their own mechanisms for compliance and, second, to prove the effectiveness of such mechanisms to regulators. In the context of capital regulation, the reason for involving regulated institutions in the regulatory process is twofold. First, there is an inherent benefit in building upon the knowledge and the expertise of the banking industry, given that regulators necessarily rely on practices developed by regulated entities to devise effective regulatory action. Thus, rather than imposing prescriptive rules that may be inflexible, the possibility of developing internal models to meet capital requirements aims at increasing the responsibility of regulated banks by incentivizing them to develop processes that both fit within their internal organizational structures and ensure regulatory compliance. Second, the expected lower capital charges resulting from the adoption of their own models and estimations – provided that they are approved by regulators – should incentivize banks to strengthen their risk management practices, resulting in greater resilience.[84]

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83. Self-enforced regulation has been approached as a technique that transcends the traditional dichotomy between self-regulation and prescriptive regulatory standards and has been defined as a form of "subcontracting regulatory functions to private actors." IAN AYRES & JOHN BRAITHWAITE, RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE 103 (1992). The sectors where meta regulatory approaches have been adopted for some time are many and include food and industrial safety as well and environmental protection and pollution control. *See generally* Cary Coglianese & David Lazer, *Management-Based Regulation: Prescribing Private Management to Achieve Public Goals*, 37 LAW & SOC'Y REV. 691 (2003). For a critical assessment of meta-regulation in the context of international financial regulation, see Julia Black, *Paradoxes and Failures: 'New Governance' Techniques and the Financial Crisis*, 75 MOD. L. REV. 1037, 1045 (2012) (also noting that the arguments in support of meta-regulation are grounded on the idea that it enables firms to embed compliance mechanisms within their organisational structure, placing on them the responsibility to demonstrate compliance, rather than requiring regulators to demonstrate lack of compliance). In general, also after the recent financial crises, meta-regulatory techniques are widely used to define the system of corporate governance and control of banks. *See generally* IRIS HY CHIU, REGULATING (FROM) THE INSIDE: THE LEGAL FRAMEWORK FOR INTERNAL CONTROL IN BANKS AND FINANCIAL INSTITUTIONS (2015).

84. *See* AN EXPLANATORY NOTE, *supra* note 82. Professor Black noted that meta-regulation relies on regulated institutions having an appropriate culture of compliance and a correct set of incentives to pursue simultaneously public interest and private objectives. In a similar vein, regulatory authorities should have adequate skills to assess firms as well as "sufficient courage and political support to challenge them." *See* Black *supra* note 83, at 1046.

The introduction of Basel II was controversial and, as the 2007-2008 crisis unfolded, the Accord proved to harbor deep conceptual and operational flaws. A series of issues also emerged with respect to the reliance on internal models to calculate regulatory capital. Although large banks welcomed with favor the introduction of the internal model approach, the financial crisis revealed a series of weaknesses. First, there was the suspicion that banks could manipulate the IRB variants to benefit from lower charges without effectively curbing risks.[85] Second, the quality of internal data appeared questionable, given that the limited timeframe considered was inadequate to reflect systemic shocks which, by construction, were considered extremely unlikely.[86] Third, the adoption of the IRB methodologies was not homogenous and similar operations corresponded to very different risk assessments and, thus, capital requirements. Finally, only largest banks fully benefited from capital reliefs associated with adoption of the most sophisticated IRB variant, i.e. the Advanced IRB, to calculate risk-weights for corporate exposures.[87] Instead, for corporate lending, banks tend to rely on parameters and models offered by regulators. These observations are not surprising: time is required to gather reliable datasets, develop stochastic analyses as well as to implement and fine-tune new governance approaches that have been re-defining the relationship between regulatory authorities and regulated entities.[88]

To address (at least partially) the concerns with Basel II, the Basel Committee initiated a process of reforms that, following

85. Alexander, *supra* note 80, at 346.

86. SCOTT & GELPERN, *supra* note 5, at 601 (indicating also the IRB approaches are not tailored to reflect the differences in national laws). More generally financial economists have noted that the models prescribed by Basel II are flawed. Jon Danielsson, *Blame the Models*, 4 J. FIN. STABILITY 321, 326 (2008) (noting that the focus on small and frequent events to construct models to calculate capital charges leads to unrealistic assumptions over the likelihood and the impact of larger losses).

87. Given the ability of IRBs to significantly reduce capital charges, their adoption is expected to increase in the European Union. *See* EUR. BANKING AUTH. (EBA), INTERIM RESULTS UPDATE OF THE EBA REVIEW OF THE CONSISTENCY OF RISK-WEIGHTED ASSETS (2013). Whereas, in the United States, the adoption of IRB approaches is considered less permissive. *See* SCOTT & GELPERN, *supra* note 5, at 606.

88. On the benefits and limits of internal models, see Robert F. Weber, *New Governance, Financial Regulation, and Challenges to Legitimacy: The Example of the Internal Models Approach to Capital Adequacy Regulation,* ADMINISTRATIVE L.R. 783, 860 (2010) (noting that for regulators the use of internal models is a tool to bridge the information asymmetry between banks and regulators).

extensive negotiations, resulted in the adoption of Basel III.[89] The necessity of a new accord to replace Basel II became evident with the 2007-2009 financial crisis. Nonetheless, the adoption of Basel III occurred into two phases. Hence, certain elements of Basel III, primarily concerned with the level and the quality of regulatory capital, were adopted in 2011 and implemented starting from January 2013. The remaining elements were adopted in 2017, and they will progressively enter into force starting from 2022 with a full implementation scheduled in 2027.[90] It follows that the dawn is still not an imminent event for Basel II. Moreover, Basel II, together with the changes introduced in 2011, constitutes the Basel framework that is currently in force in several jurisdictions, including across the European Union.[91]

The long gestation required to finalize Basel III and the prolonged implementation period signal the existence of contraposed interests. Notably, these were represented, on the one hand, by the necessity of limiting the use of internal models and, on the other hand, by the compliance costs that sudden limitations to the use of internal models would have had on banks relying on them.[92] Hence, different approaches have been developed, first, at the national level and, then, at the international level with the final adoption of Basel III.

Limitations to the use of internal models have been, at first, introduced at the national level. In particular, the powers of national regulators to challenge the statistical models proposed by banks have been strengthened and regulators may impose more stringent criteria to ensure the reliability of banks' own estimations. Further limitations

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89. *See supra* note 13.

90. *See supra* notes 13 & 23 and accompanying texts.

91. Moreover, BASEL II is poised to be relevant for several years to come. The implementation of the new Accord is likely to occur first in developed economies, whereas the timing for phasing out Basel II – and Basel I – in the rest of the world remains uncertain.

92. S*ee supra* note 23. Considering that in the European Union every bank is subject to the Basel Accords and that the adoption of IRB approaches is common among large European banks, authorities from EU Member States were reluctant to accept limitations to the use of internal models put forward by Basel III. Such limitations, in fact, are likely to result in an increase of regulatory capital for European banks. Differently, in the United States, limitations to the use of IRB approaches for large banks are already in place and small banks still rely on a version of Basel I to compute capital requirements. *See* SCOTT & GELPERN, *supra* note 5, at 605. Through these lenses, it is possible to understand that the stall in the negotiations concerning the completion of BASEL III (*see supra* note 15) was resolved also through the concession of a long implementation period.

are evident in the parameters adopted by national authorities to calculate capital charges for loans secured with real property. For instance, the Bank of England proposed more stringent parameters to calculate the risk-weight of residential mortgages under the IRB methodologies.[93] Such a trend reflects shared regulatory concerns over the dynamics leading to the 2007-2009 global financial crisis, originated in the mortgage market. More generally, the use of internal models has been typically limited through two techniques. The first one consists in the establishment of floors, below which the IRB approaches cannot reduce capital charges.[94] As a result, the use of own estimations is constrained within parameters that are statutorily established for different operations. The second technique commonly used is termed "slotting" and consists of classifying financing operations into buckets, or slots, with varying risk weights.[95] Depending on a series of mandatory criteria, banks are required to categorize each operation within a corresponding slot in order to calculate capital charges. Both techniques are featured in the final version of Basel III.[96]

Although Basel III is built upon the structure introduced by Basel II, thus maintaining the three-pillar structure and the possibility to use internal models, the new Accord introduces a number of significant changes. Since its inception, Basel III has been characterized by a pronounced emphasis on the overall stability of the banking system with attention towards the interconnectedness of banks, the levels of liquidity and leverage, as well as the quality of

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93. PRUDENTIAL REGULATION AUTH., BANK OF ENG., CONSULTATION PAPER: RESIDENTIAL MORTGAGE RISK WEIGHTS 5 (2016), https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/consultation-paper/2016/cp2916.pdf?la=en&hash=6EACFA5B459ECB1FB8D06991F4C18E0DE66F33D4 [https://perma.cc/WH9Q-Y84P] (archived Mar. 3, 2018). A similar approach has been followed by the Swedish Banking Supervisor (*Finansinspektionen*) in a memorandum expressly referred to the inability of internal risk models to capture (adequately) the risk related to mortgages, posing concerns for the stability of the Swedish market. *See* FIN. SUPERVISORY AUTH. (*Finansinspektionen*), MEMORANDUM: RISK WEIGHT FLOOR FOR SWEDISH MORTGAGES 1 (2013), http://www.fi.se/contentassets/f1de28204ca048d1a780ca4d230fae1d/riskviktsgolv-svenska-bolan-12-11920-21maj2014-eng.pdf [https://perma.cc/R5H4-Z3LM] (archived Mar. 3, 2018).

94. *See* JOHN ARMOUR ET AL., *supra* note 5, at 304.

95. *See* IRB CONSULTATIVE DOCUMENT, *supra* note 23, at 2.

96. For instance, see BASEL III, *supra* note 13, ¶ 38 (requiring banks that do not meet certain criteria to categorize their internal risk grades into five supervisory slots which specific risk weights). *See also* BASEL III, *supra* note 13, *e.g.*, ¶ 147 (establishing a general twenty percent floor for collateralized transactions).

regulatory capital to limit excessive risk-taking.[97] With its finalization, the risk-sensitivity of the standardized approach to calculate credit risk and operational risk has been improved with the introduction of more uniform criteria and further granularity among classes of borrowers and categories of operations.[98] Moreover, the risk-weighted capital ratio has been accompanied by a reinforced leverage ratio, sustained by new capital floors applicable regardless of the methodology adopted.[99] These revisions have the practical effect of bringing the standardized and the IRB approaches closer to one another. The intent is, in fact, twofold and consists of increasing the flexibility in the calculation of capital charges while limiting methodological discrepancies across jurisdictions and among banks.

Notwithstanding the amplitude and the depth of these changes, when it comes to personal property collateral, Basel III does not present any significant variations from the general framework established in Basel II. If anything, the stronger emphasis on liquidity that permeates Basel III reinforces the regulatory skepticism, further illustrated below,[100] towards any collateral that is considered not sufficiently liquid and prone to depreciation in case of economic

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97. This is evident already from the changes introduced in 2011. *See* SCOTT & GELPERN, *supra* note 5, at 608-609; and Alexander, *supra* note 76, at 349. For a summary of the main changes introduced by Basel III, see BASEL COMM. ON BANKING SUPERVISION, HIGH-LEVEL SUMMARY OF BASEL III REFORMS (2017) https://www.bis.org/bcbs/publ/d424_hlsummary.pdf [https://perma.cc/K5KH-KYL2] (archived Mar. 3, 2018) [hereinafter BASEL III HIGH-LEVEL SUMMARY].

98. For instance, the standardized approach of Basel II assigned a flat risk weight that was equal for every residential mortgage. Under the standardized approach put forward in Basel III, the risk-weightings for mortgages depend on the loan-to-value ratio of the mortgage, that is the amount of the loan divided by the value of the property; see BASEL III, *supra* note 13 ¶ 62. Moreover, a new risk-weighting has been introduced for exposures to small and medium-sized enterprises, BASEL III, *supra* note 13 ¶ 43. In regard to operational risk, higher capital requirements apply to larger banks, as it is assumed that operational risk increases with a bank's income, and to banks that have experienced greater losses due to operational failures, as they are considered more likely to suffer similar losses in the future. *See* BASEL III HIGH-LEVEL SUMMARY *supra* note 97, 8.

99. The refined leverage ratio targets, in particular, systemically important banks that would have to ensure at any point in time a minimum level of equity, in addition to the risk-weighted capital ratio; see BASEL III, *supra* note 13, 140. In respect to the new output floor *see* BASEL III HIGH-LEVEL SUMMARY *supra* note 97, 11.

100. In this Article reference to BASEL III is made only where relevant for comparative purposes, given that Basel II is still the current set of standards for capital requirements and that Basel III did not modify substantially the regime governing the treatment of personal property as collateral.

downturns. EU regulators and Member State authorities, following this trend, have substantially conformed to the Basel framework without prescribing any variation for the risk-weight parameters for transactions secured with personal property.[101]

2. The Rationale for Capital Requirements: Regulating Risk

Given that the Basel framework is crisis-driven, its rationale should be interpreted in the light of the core concerns that emerged from the global financial crisis, whereby banks – notwithstanding formal compliance with capital standards – experienced liquidity issues.[102] The risk of a collapse of the entire financial system, together with multiple regulatory failures in addressing that occurrence, prompted national and international regulators to take a broader look at the dynamics of financial markets and to reassess the appropriate regulatory strategies to preserve financial stability.[103] In banking regulation, the stance for more direct action to curb the risk of a systemic failure entails a more careful balance between the traditional micro-prudential focus, inherent in the Basel Accords, and macro-prudential regulatory tools, aimed at ensuring the stability of the banking system as a whole.[104] An effective illustration of the difference between these two regulatory functions is offered by a recurring metaphor according to which micro-prudential regulation is

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101. With regard to the United Kingdom, regardless of terms defining its departure from the European Union, there is no indication that national regulators will not apply the provision enshrined in EU law, at least in the context of the risk-weight approach for loans secured through movable assets. In general, a disapplication of EU regulation may have direct consequences on the ability of British banking institutions to operate in the single market. For an analysis of the impact of various "Brexit" options on the financial service industry in the United Kingdom, see John Armour, *Brexit and Financial Services* 33 OXFORD REV. ECON. POLICY S54 (2017). *See also* Niamh Moloney, *Financial Services, the EU, and Brexit: An Uncertain Future for The City?* 17 GERMAN L.J. 75 (2016).

102. BASEL III (2011), *supra* note 13, ¶ 35.

103. *See generally* FIN. SERVICES AUTH. (FSA), THE TURNER REVIEW: A REGULATORY RESPONSE TO THE GLOBAL BANKING CRISIS (2009); EU COMMISSION, REPORT OF THE HIGH LEVEL GROUP ON FINANCIAL SUPERVISION IN THE EU CHAIRED BY JACQUES DE LAROISIERE (2009). On the failures of various regulatory strategies, including those incentivizing the use of internal models, see Black, *supra* note 83, at 1037.

104. Several assessments have been made to identify critical regulatory failures that emerged during the 2007-2009 financial crisis. For an elevated perspective on the regulatory governance issues, see Black *supra* note 83. For a political economy perspective, see WHAT HAVE WE LEARNED? MACROECONOMIC POLICY AFTER THE CRISIS (George Akerlof et al. eds., 2014).

concerned with the health of the trees (individual banks) and macro-prudential regulation is the safeguard of the forest (the banking system as a whole).[105]

In practical terms, micro and macro-prudential regulatory strategies may differ significantly. The former focuses primarily on "idiosyncratic risk," which is the risk related to any specific operation. Given that idiosyncratic risks are, by definition, uncorrelated with one another and show little correlation with market risk, under a micro-prudential approach capital requirements curb individual risk-exposures chiefly through diversification strategies. In contrast, under a macro-prudential approach, capital requirements are designed to address more directly the correlation among various risk-exposures. In particular, they are concerned with the mitigation of "systemic risk," which is the likelihood that an event affecting one or more financial entities triggers financial instability.[106] The cyclical movements of markets and economies, the occurrence of diffused shocks and the failure of interconnected banks undermine risk-management strategies based on diversification. For instance, granting credit to a small

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105. Rosa Maria Lastra, *Systemic Risk, SIFIs and Financial Stability*, 6 CAPITAL MARKETS L.J. 197, 198 (2011) (focusing on the need for a special regime to resolve systemically relevant financial institutions, of SIFIs). For an early analysis indicating the necessity of combining micro-prudential and macro-prudential regulatory tools, see Andrew D. Crockett, General Manager, Bank for International Settlements, Remarks at the Eleventh International Conference of Banking Supervisors: Marrying the Micro- and Macro-prudential Dimensions of Financial Stability (Basel, Sept. 20-21, 2000).

106. Systemic risk is a multifaceted concept that, like its positive counterpart "financial stability," has blurred contours. A joint report issued by the International Monetary Fund, the Bank for International Settlements, and the Financial Stability Board sets a commonly accepted definition indicating a systemic event as "the disruption to the flow of financial services that is (i) caused by an impairment of all or parts of the financial system; and (ii) has the potential to have serious negative consequences for the real economy." INT'L MONETARY FUND ET AL., GUIDANCE TO ASSESS THE SYSTEMIC IMPORTANCE OF FINANCIAL INSTITUTIONS, MARKETS, AND INSTRUMENTS: INITIAL CONSIDERATIONS–BACKGROUND PAPER 5-6 (2009). Professor Steven Schwarcz indicated that systemic risk should be understood as a specific type of tragedy of the commons that occurs because market participants are not incentivized to limit individual risk-taking, notwithstanding the potential negative consequences on markets. Therefore, regulatory intervention is necessary and should be tailored to redress the incentive structure of financial institutions. *See* Steven L. Schwarcz, *Systemic Risk*, 97 GEO L.J. 193 (2008). For an account of the primary issues related to systemic risk in the banking sector, see Olivier de Bandt et al., Philipp Hartmann & José L. Peydró, *Systemic Risk in Banking After the Great Financial Crisis*, *in* THE OXFORD HANDBOOK OF BANKING (Allen N. Berger, Philip Molyneux & John O.S. Wilson eds., 2014). On regulating systemic risk in capital markets, see Anita I. Anand, *Is Systemic Risk Relevant to Securities Regulation*, 60 U. TORONTO L.J. 941 (2010).

business is a routine financing operation that presents a high level of idiosyncratic risk and a low level of systemic risk. The related credit risk is mitigated in a portfolio containing other (less risky) loans; thus the probability of non-repayment is higher than the probability that a default on that loan could generate a systemic shock. Yet, a phase of economic recession that simultaneously constrains the ability of a large portion of small businesses to repay their loans when due would impair the ability of the lender to meet its short-term obligations. Depending on the economic contingencies, a lack of sufficient liquidity may then ramify into systemic concerns. This sketch illustrates that the mitigation of credit risk may not alone curb the risk of banking or systemic failures. Given the maturity mismatch between short-term liabilities and long-term investments, a bank may become insolvent due to insufficient liquidity. Hence, the Basel framework is particularly concerned with the maintenance of sufficient levels of liquidity of individual banks as well as within the entire banking system.

The pivot of the risk-based approach of the Basel framework is represented by the coefficients to weigh capital charges against the levels of risks, in particular credit risk, associated with lending operations. Under the standardized approach, risk-weighted coefficients are defined by regulators and the possibility of considering factors mitigating credit risk is limited. For instance, small business loans are risk-weighted at seventy-five percent,[107] and only security rights over highly liquid assets, such as bank accounts, may be considered to reduce credit risk and thus capital charges. Risk-weight coefficients feed into the capital adequacy formula and, assuming there are no other risk factors or surcharges, capital charges are calculated by multiplying: (1) the loaned amount, by (2) the risk-weight, by (3) eight percent. By way of example, a small business loan with a value of 100 requires a bank to hold capital equal to or greater than six.

Risk-weighted coefficients can be considered legal constructions that resemble statutory presumptions expressed in percentage terms of

107. BASEL II, *supra* note 12, ¶ 69. Basel III has introduced a new risk weight for exposures to small and medium sized enterprises (SMEs). Hence, when the new rules will enter into force, exposures to SMEs could either be subject to a treatment similar to the one currently in place, thus receiving a risk weight of seventy-five percent or, if not eligible, they could still receive a eighty-five percent risk-weighting.

both the likelihood of repayment and the level of liquidity for different classes of financing operations and borrowers. The adoption of the IRB variants allows banks to adjust such a presumption. Under the IRBs, banks may determine the parameters for the calculation of capital charges by resorting to internal estimations over the probability of default and the resulting losses. The risks associated with a specific lending operation may be further mitigated, taking into account specific factors, such as the protection offered by a security right over tangible assets or receivables. However, in spite of their name, IRBs are governed by stringent regulatory prescriptions, according to which a security right in collateral may lead to reduced capital charges only if banks comply with specific regulatory requirements, as further examined in the next Section of this Article. Even more, as illustrated earlier, the finalization of Basel III has further constrained the use of IRBs.[108]

From the above it emerges that the tension between secured transactions law and prudential regulation has profound roots. Secured transactions law aims at facilitating credit creation through private negotiations and under the assumption that credit risk is mitigated whenever security rights over collateral are taken. In this regard, secured transactions law, by focusing on the transactional dimension of security rights, is not concerned with systemic considerations nor does it delve into the connection between credit and liquidity risk. Prudential regulation is a crisis-driven, internationally-led regulatory framework designed to prevent banking failures and preserve the stability of the entire financial system. Stemming from this general rationale, capital requirements follow an operational logic that regulates banks from "within" in order to limit the level of risk taken by a particular bank as well as the risk accumulated in the entire banking system. Upon these premises, dissonances are expected when the rules governing security rights encounter the legal presumptions and the regulatory parameters established to compute capital charges; that is when the secured creditor is a regulated credit institution.

108. *See supra* notes 93-96 and accompanying text.

III. DISSONANCES BETWEEN SECURED TRANSACTIONS LAW AND PRUDENTIAL REGULATION

While any security instrument can be understood as a device to manage credit risk,[109] different rules on creation, perfection, priority, and enforcement impact the credit protection effectively offered by each instrument. The legal treatment of a security right depends on either its legal nature, under legal regimes embracing a formalist approach, such as English law,[110] or its economic effects, under legal regimes that follow functionalism as the ordering principle, including those defined by UNCITRAL reflecting the North American experience.[111] In legal systems deploying formalism, in which multiple categories of security rights coexist, the legal characterization of a security instrument is to be ascertained in order to determine the requirements for its creation, perfection, priority, and enforcement. By and large, the prudential regulatory framework neglects the granularity of national laws, focusing instead on specific legal and economic effects of a security right. Security instruments, together with other contractual mechanisms, are defined as Credit-Risk Mitigation ("CRM") techniques.[112] CRMs are primarily designed to lessen the risks associated with individual financing operations and, overall, with the entire portfolio of financing operations of a bank. When CRM techniques are employed, the resulting risk-weighted capital charge should not be higher than that imposed on otherwise identical transactions that are not covered by credit protections.[113] However, if providing inadequate credit

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109. Castellano, *supra* note 27, at 617 (indicating that "the primary economic function of non-possessory secured transactions is to manage and mitigate credit risk without limiting the production capacity of the collateral and the debtor.").

110. A formalist approach is adopted in various European jurisdictions e.g., France and Italy, where multiple categories of security rights coexist and are statutorily defined. On the formalist approach, see GOODE, *supra* note 3, ¶ 1-04.

111. For a critical assessment of functionalism and formalism in secured transactions laws, see Michael G. Bridge et al., *Formalism, Functionalism, and Understanding the Law of Secured Transactions*, 44 MCGILL L.J. 567 (1999).

112. CRMs are defined as techniques whereby "exposures may be collateralized by first priority claims, in whole or in part with cash or securities, a loan exposure may be guaranteed by a third party, or a bank may buy a credit derivative to offset various forms of credit risk." BASEL II, *supra* note 12, ¶ 109; also restated in BASEL III, *supra* note 13, ¶ 117.

113. BASEL II, *supra* note 12, ¶ 113. This principle is a mainstay for CRM and has been restated in SECOND CONSULTATIVE DOCUMENT, *supra* note 23, ¶ 104 and ultimately codified also in BASEL III, *supra* note 13, ¶ 119.

protection, for instance, due to insufficient value of the collateral, security instruments may result in capital charges that correspond to those applied to unsecured credit.[114] In such circumstances, even though the security instrument could still be taken into account for the purpose of calculating banks' economic capital, capital requirements effectively increase.

From the foregoing discussion, it becomes apparent that the traditional narrative advocating that the use of collateral broadens access to credit by reducing its cost does not stand on firm ground. The sole existence of a security right over an asset, even though reducing credit risk, does not result per se in a reduced capital charge. In fact, while collateralized transactions are intended to offer credit protection, they also generate new risks, including legal risk, hindering the exercise of secured creditors' rights; operational risk, arising from faulty procedures to monitor or evaluate collateral; and liquidity risk, arising from the difficulties in the disposal of collateral.[115] A security right reduces a capital charge below the level of that applicable to unsecured loans only if it complies with prescriptive regulatory requirements ensuring the soundness of individual banks and the stability of the entire banking system. Thus, it is key to elicit such requirements.

Under the Basel framework, to determine whether a given CRM technique corresponds to reduced capital charges, banks have to deploy specific procedures articulated either in the standardized approach or, if authorized by national regulators, in one of the two IRB variants. Subsequently, depending on the methodology adopted, various provisions apply to determine if a given type of transaction constitutes an eligible credit protection and its corresponding coefficient for the computation of the risk-weighted capital charge.[116]

114. There are some exceptions to this rule and in some instances non-eligible CRMs may also result in lower capital charges, as it occurs in the case of past due loans. *See* BASEL II, *supra* note 12, ¶ 77. Nonetheless, Basel III adopts a more conservative approach and only collateral and guarantees considered eligible for CRM purposes may be taken into account to lower capital charges. *See* BASEL III, *supra* note 13, ¶ 94. In any respect, the application of these exceptions does not affect the regulatory treatment of security rights here examined.

115. BASEL II, *supra* note 12, ¶ 115 and BASEL III, *supra* note 13 ¶ 122.

116. This may occur in different fashions. In general, if a coefficient is not statutorily attributed to a specific operation, the risk-weight of the collateralized transaction results from the reduced exposure calculated after the CRM, multiplied by the risk-weight of the counterparty; BASEL II, *supra* note 12, ¶ 148 and BASEL III, *supra* note 13 ¶ 162.

In this context, the regulatory treatment of security rights over financial assets, receivables and tangible goods is examined and the implication of the lack of coordination between secured transactions law and capital requirements is unveiled.

A. The Regulatory Treatment of Secured Transactions

The rationale and the inner logic of capital requirements are embedded in the requisites for eligible credit protections enshrined in the Basel framework and implemented in the EU by the Capital Requirements Directive ("CRD IV") and the CRR.[117] The CRD IV and the CRR are essential components of the European Single Rule Book and apply to any bank operating in the European single market, extending to the European Economic Area. These two texts of EU secondary legislation – and, in particular, the CRR for the purpose of determining capital requirements – recurrently entrust the European Banking Authority ("EBA") with the tasks of defining guidelines and drafting technical standards.[118] The latter are then to be adopted by the European Commission through delegated or implementing acts, pursuant to relevant Treaty provisions and procedures.[119] The resulting level of legal harmonization substantially limits national discretion and offers grounds for a more accurate analysis of the regulatory treatment, under different methodologies, of the most common types of collateralized transactions.

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117. CRD IV, *supra* note 14; CRR, *supra* note 14.

118. In particular, the EBA, like the other European Supervisory Authorities, may draft Regulatory Technical Standards and Implementing Technical Standards. *See* arts. 10 & 15 of Council Regulation 1093/2010, Establishing a European Supervisory Authority (European Banking Authority), 2010 O.J. L. 331/12.

119. Notably under arts. 290 & 291 of the Consolidated Version of the Treaty on the Functioning of the European Union, Oct. 26, 2012, 2012 O.J. (c. 326) [hereinafter TFEU]. On the regulatory powers of the EBA, see Paul Craig, *Comitology, Rulemaking and the Lisbon Settlement: Tensions and Strains*, *in* RULEMAKING BY THE EUROPEAN COMMISSION: THE NEW SYSTEM FOR DELEGATION OF POWERS 195 (Carl F. Bergström and Dominique Ritleng eds., 2016). On the legal basis and powers of the European Supervisory Authorities, see Niamh Moloney, *European Banking Union: Assessing its Risks and Resilience*, 51 COMMON MKT. L. REV. 1609 (2014); Elaine Fahey, *Does the Emperor Have Financial Crisis Clothes? Reflections on the Legal Basis of the European Banking Authority*, 74 MOD. L. REV. 581 (2011).

The CRR identifies two requisites for CRMs to mitigate credit risk and thus discount capital charges.[120] First, assets have to be included in the list of "eligible collateral" contained in the CRR.[121] Second, they have to be "sufficiently liquid" with a stable value over time.[122] Moreover, banks should demonstrate – through written and independent legal opinions – that they have the right to liquidate (or retain) the collateral promptly in the event of the debtor's default or insolvency in all relevant jurisdictions.[123] The intent of these general provisions is to ensure that lower capital charges correspond to lower levels of credit and liquidity risk by focusing on the effective realization of the value of the collateral. The legal certainty and the enforceability of a security right are of paramount importance in this context. These principles permeate the bulk of provisions concerning different classes of collateral and types of transactions, and ultimately design a regulatory framework that privileges security rights on liquid assets, such as financial instruments, over less liquid tangible assets.

Upon these premises, Article 197 of the CRR contains a list of eligible collateral, such as gold, cash and financial instruments deposited in accounts held by the lending institution extending the secured loan.[124] In addition, cash on deposit or assimilated instruments that are "held by a third party institution in a non-custodial arrangement and pledged to the lending institution" may constitute eligible collateral.[125] In taking this asset-specific approach, these provisions of the CRR do not take into account the practice of

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120. The regulatory framework for CRMs is contained in BASEL II and their treatment is specified for each methodology. The framework is currently under revision following the SECOND CONSULTATIVE DOCUMENT, *supra* note 23. The CRR already contains some of the proposed changes.

121. CRR, *supra* note 14, art. 194(3)(a).

122. *Id.*, art. 194(3)(b).

123. *Id.*, arts. 194(1) & (4).

124. The list also includes a variety of equity and debt finance instruments, issued by governments and institutions rated by credit rating agencies authorized under EU law, listed in recognized stock-exchanges, or that qualify as senior debts. *See* CRR, *supra* note 14, art. 197. The blueprint of this list is put forward in BASEL II, *supra* note 12, ¶¶ 145-146. The CRR already encapsulates the proposed amendments advanced by the Basel Committee in the SECOND CONSULTATIVE DOCUMENT, *supra* note 23, ¶ 132 and now codified in BASEL III, *supra* note 13 ¶ 148.

125. CRR, *supra* note 14, art. 200(a). CRR arts. 200(b) & (c), also provides that "life insurance policies pledged to the lending institution" and "instruments issued by third party institutions which will be repurchased by that institution on request" may be used as eligible collateral.

taking a security right over the entire business, which is common in English law (under floating charges) and contemplated by the EBRD Model Law in the form of an enterprise charge. The ability to evaluate, control and promptly convert collateralized assets into cash is a common feature of the listed assets. Hence, lending operations backed by these assets allow the curbing of credit risk while maintaining a sufficient level of liquidity, given that the repayment of a loan is protected by assets that are either equivalent to or promptly convertible into cash.[126] Moreover, some of these assets may be re-pledged by the secured creditor to secure its own borrowing, giving it an additional source of liquidity.[127] It follows that, when a security right in these assets is established, a reduced capital charge is justified from a (micro and macro) prudential perspective. In the EU, these assets partially overlap with the legal category of "financial collateral" set forth in the FCD.[128] In this respect, the FCD, by limiting legal formalities to establish and transfer financial collateral and by facilitating swift and efficient enforcement mechanisms in case of a debtor's default or insolvency,[129] dovetails with the CRR and contributes to preserving financial stability through the maintenance of sufficient levels of liquidity in financial markets.

Security rights over tangible assets and receivables may be considered in the computation of risk-weighted capital charges only under the IRB methodologies. Such an approach has been introduced

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126. In line with BASEL II, *supra* note 12, ¶¶ 145-146, the CRR defines a detailed set of approaches and methodologies to compute the impact of different forms of financial collateral on capital requirements. CRR art. 222 defines the "financial collateral simple method" to calculate capital requirements under the standardized approach; whereas CRR art. 223 sets out the "financial collateral comprehensive method" to be used under different methodologies. The list of eligible collateral considered here and contained in CRR art. 197 applies to all methods and approaches.

127. FCD*, supra* note 36, art. 5(1). On the right of the secured creditor to use financial collateral under FCD, see GEOFFREY YEOWART & ROBIN PARSONS, YEOWART AND PARSONS ON THE LAW OF FINANCIAL COLLATERAL ch. 11 (2016).

128. FCD, *supra* note 36, art. 1, ¶ 4(a), defines financial collateral as cash, financial instruments or credit claims. In the CRR, the treatment of financial collateral as credit protection is further specified under art. 207. However, the CRR is not limited to credit claims but recognizes a defined broader category of receivables (art. 199), further regulated under art. 209. On financial collateral, see HUGH BEALE ET AL., *supra* note 2, ¶¶ 3.01ff.

129. FCD, *supra* note 36, arts. 4 & 8. The FCD recognizes two fundamental remedies that may be exercised against financial collateral, namely the power of sale and appropriation, the former being most commonly used. *See* YEOWART & ROBIN PARSONS, *supra* note 127, ¶¶ 4-01 & 12-06.

with Basel II and it remained almost unaffected with the adoption of the final version of Basel III. The CRR establishes a series of detailed provisions that are regrouped here into two sets of requirements. The first set of requirements, enumerated in Article 209(3) of the CRR, defines the risk management procedures that banks must deploy in order to benefit from reduced capital charges.[130] Banks must conduct a regular assessment of the credit risk associated with receivables, including an evaluation of the credit practices adopted by the debtor.[131] They must ensure that the difference between the amount of the exposure and the value of the receivables reflects the costs of enforcement and the risk associated with their concentration in the bank's overall portfolio.[132] Encumbered receivables should also have a limited correlation with the solvency of the debtor.[133] Moreover, certain forms of receivables, due to their nature, are simply considered ineligible for CRM purposes.[134]

For security rights over tangible assets, termed "physical collateral,"[135] the first set of requirements also relates to the ability of banks to manage the risks arising from their deployment with a particular emphasis on liquidity risk. Regulators are concerned with the processes that banks use to assess the value of given physical collateral in relation to the secondary market in which they can be liquidated.[136] Publicly available data on market prices, estimations of expected time and costs needed to dispose of the asset are required to both prove the existence of a sufficiently liquid market and assess the

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130. The CRR provision mirrors BASEL II, *supra* note 12, ¶¶ 516-520. The provisions have been maintained in BASEL III, *supra* note 13 ¶ 290-294.

131. CRR, *supra* note 14, art. 209(3)(a).

132. CRR, *supra* note 14, art. 209(3)(b).

133. CRR, *supra* note 14, art. 209(3)(c).

134. These include receivables connected with securitizations, sub-participations and credit derivatives, and receivables from affiliates of the borrower, such as subsidiaries and employees. *See* CRR, *supra* note 14, arts. 199(5) & 209(3)(d).

135. CRR, *supra* note 14, art. 199(1)(c).

136. These principles are also contained in BASEL II, *supra* note 12, ¶¶ 521 & 522. In this regard, BASEL III largely retains these core requisites, with a relevant difference: national regulators lost the discretionary power to compile a list of collateral that are automatically considered to meet the market conditions to be treated as eligible collateral. *See* BASEL III, *supra* note 13, ¶¶ 295 & 296. This change, although it reflects the efforts of the Basel Committee to reduce national discrepancies, represents a further barrier to the use of personal property as collateral.

amount that is expected to be recovered.[137] Although delegated acts may identify the types of physical collateral for which market and value conditions can be considered automatically met,[138] the EBA communicated that there are no types of collateral for which these conditions could be assumed, requiring banks to conduct case-by-case evaluations.[139] Furthermore, banks are also required to demonstrate that they have procedures to monitor regularly and objectively any change in the value of the collateral.[140] As a further protection, the collateral must be insured against the risk of damage.[141] These prescriptions lie outside the scope of secured transactions law. However, compliance with these requirements alone corners the parties' autonomy, notably by limiting the level of risk banks may take if the security instrument is to reduce capital charges. As a result, banks may be dis-incentivized to enter into secured transactions or they may do so at a higher cost.

The second set of requirements relates more directly to the features of the law governing secured transactions. In line with the necessity of ensuring effective credit protection, banks should assess and demonstrate, by means of independent legal opinions, the legal certainty of their rights over receivables and physical collateral.[142] Specifically, the regulatory framework focuses on three central aspects, i.e. perfection, priority and enforceability in case of default. To provide eligible credit protection, a security right over these types of collateral (and the claim to proceeds deriving from their liquidation) should have priority over all competing claimants with the exception of statutory claims identified in national laws.[143] From

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137. CRR, *supra* note 14, art. 199(6). Moreover, CRR art. 199(6)(d) provides that a bank should demonstrate "that the realised proceeds from the collateral are not below 70 per cent of the collateral value in more than 10 per cent of all liquidations for a given type of collateral." This evidences the attention to the value of the collateral, which is determined in relation to market analyses.

138. CRR, *supra* note 14, art. 199(8).

139. *See Rules and Guidance*, EUR. BANKING AUTH., *Rules and Guidance*, www.eba.europa.eu/supervisory-convergence/supervisory-disclosure/rules-and-guidance [https://perma.cc/6VDT-E4CC] (last visited Oct. 12, 2017).

140. CRR, *supra* note 14, arts. 210(c) & (g).

141. *Id.* art. 208(5).

142. *Id.* arts. 209(2)(c) & 210(a).

143. *Id.* arts. 209(2)(b) & 210(b). BASEL II, *supra* note 12, refers to the necessity of having first priority on collateralized transactions (in general) at ¶ 513, and on physical collateral at ¶ 522. The same requisites are indicated in BASEL III, *supra* note 13 ¶¶ 287 & 296.

the combined examination of the provisions defining the eligibility requisites for receivables and physical collateral, it emerges that a secured transactions regime should enable banks to enforce a security right swiftly. These general requirements set the guidelines for detailed rules that define narrow contours for a collateralized transaction to qualify as eligible credit protection and result in a reduced capital charge.

B. The Interactions between Secured Transactions Law and Capital Requirements

Capital requirements, in defining the requisites for credit protection, delineate a specific regulatory understanding of security rights. Such an understanding is consistent in several aspects to the one advanced in modern secured transactions laws. However, a series of inconsistencies emerge regarding the execution of security agreements, the rights and obligations of the parties, and the enforcement and publicity regime of security rights.

First, the CRR and the Basel framework require the security agreement to contain a detailed description of the physical collateral;[144] thus implying that a detailed description is a proxy for exercising control. Such a requirement may be reasonable when the collateral is a discrete item of property, say, a piece of equipment, but could be rather cumbersome if the debtor is, for instance, a company that owns a variety of similar items. The assumption is that a detailed description would allow for a prompt identification of the collateral and its segregation from other assets that may either be unencumbered or subject to other security rights. Thus, theoretically, banks should enjoy greater control over physical collateral that can be readily identified and separated from other assets in the event of default. However, from a practical standpoint, a contractual formula identifying collateral as "all assets" or a description by type or category would achieve the same end in a more effective manner. Such descriptions, in fact, allow secured creditors to identify and take control of collateral upon default by circumventing the cost of a precise identification and expediting the enforcement of their right. It is for this reason that the UNCITRAL and EBRD Model Laws

144. CRR, *supra* note 14, art. 210(d) reflecting BASEL II, *supra* note 12, ¶ 522 and, now, contained in BASEL III, *supra* note 13 ¶ 287.

recognize that reference to "all assets" or to all movable assets within a category, suffices.[145] Similarly, English common law, the Belgian Pledge Act and the new provisions regulating the non-possessory pledge in Italy only require encumbered assets to be sufficiently identified or identifiable.[146] Accordingly, the CRR embraces a position that is discordant with a trend promoted by international soft-laws and embraced by national laws, in favor of an approach that considers encumbered assets in isolation, rather than considering them as part of a growing concern. In most cases, the sale of business as a whole would generate more value than an item-by-item disposal. The CRR effectively supplants national secured transactions law by establishing more stringent standards applicable to banks that seek to reduce capital charges. Nonetheless, such a position does not appear to be sustained by prudential concerns. If anything, a detailed description of the collateral, by inducing the parties to single out specific assets, limits the efficacy of such credit protections by increasing the costs of monitoring and enforcement, with a consequent surge in operational and legal risks. In contrast, generic descriptions allow banks to manage those risks more effectively.

A second issue relates to the right granted to banks to conduct regular inspections of physical collateral.[147] Secured transactions laws may specifically recognize such a right or may simply facilitate its exercise by leaving the definition of the manner in which inspections should be carried out to private negotiations.[148] Under the UNCITRAL Model Law, a secured creditor may inspect the collateral, but defers to the parties agreement to determine what would constitute a reasonable time for inspection and whether a prior notice is

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145. *See* UNCITRAL MODEL LAW, *supra* note 42, art. 9; EBRD MODEL LAW, *supra* note 43, art. 5.5. *Contrast* with U.C.C. § 9-108(c), under which "super-generic" collateral descriptions, such as "all assets," are not sufficient. *See also* HARRIS & MOONEY, *supra* note 44, at 150.

146. On English law, see GOODE, *supra* note 3, ¶ 2-05. In Belgium, see Belgian Pledge Act, *supra* note 29. In Italy, Italian Non-possessory Pledge Law, *supra* note 31, art. 1(2).

147. CRR, *supra* note 14, arts. 210(g) & (h); BASEL II, *supra* note 12, ¶ 522 and BASEL III, *supra* note 13, ¶ 287.

148. *See* EBRD MODEL LAW, *supra* note 43, art. 15.4.3 (imposing no limitations on the right of the secured creditor to inspect collateral in possession of the debtor). Similarly, under the new Belgian regime, the secured creditor may inspect the collateral at any time. Belgian Pledge Act, *supra* note 29, art. 16.

required.[149] Other than providing for a security agreement to include a right to conduct regular inspection, the Basel Accords and the CRR are silent on how banks can effectively exercise such a right. On the one hand, the absence of specific provisions may be explained as an attempt to both concede some freedom to the parties and provide more room for maneuver to national laws. On the other hand, the CRR does not appear particularly concerned with the parties' freedom, nor is it conscious of the variety of legal solutions offered by national legal regimes. In fact, capital requirements, in different circumstances reflecting their operational logic, overrule party autonomy with detailed prescriptions regarding banks' risk-management processes.[150] Therefore, reference to a right to inspect merely restates a general principle hosted in most legal systems without adding much to solve a debate on how this right could (or should) be exercised, or whether a requirement to inform the debtor prior to any inspection would impair the effectiveness of the credit protection. The lack of such a provision – within a detailed regulation that is zealously concerned with the mechanisms that ensure monitoring of the value of collateral – appears to fall short of an essential element expected for the prudent management of credit risk.

The juxtaposition of the provisions enumerating the eligibility requisites for receivables and physical collateral reveals enforcement mechanisms as a third area of dissonance between secured transactions law and capital requirements. As a general principle, capital requirements establish that banks should be able to swiftly enforce their rights by retaining or liquidating collateral in the event of the financial distress or insolvency of the debtor.[151] For financial collateral, the CRR conforms to the provisions contained in the FCD whereby the enforcement of a security right over these assets should not be subjected to formal requirements.[152] For security rights in receivables arising from commercial transactions, banks should have the right to dispose of them without needing the consent of the

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149. UNCITRAL MODEL LAW, *supra* note 43, art. 55(2). A similar disposition is also contained in the DCFR ch. IX, § 5.201(2).

150. *See*, *e.g.*, *supra* notes 125-126 and accompanying text.

151. CRR, *supra* note 14, art. 194(4).

152. FCD, *supra* note 36, art. 3.

receivables obligors.[153] If the contract generating a receivable contains a clause banning any assignment – and such clause is recognized by the applicable law, as is the case under the English common law – a bank would be prevented from taking a security right in that receivable.[154] A rule that overrides the contractual freedom of the parties to restrict assignment has become ubiquitous in various secured transactions laws, including the UNCITRAL Model Law.[155] Furthermore, the UNCITRAL Model Law allows the secured creditor to collect encumbered receivables even before default with the consent of the grantor.[156] For security rights in physical collateral, the Basel Accords and the CRR require banks to ensure that the value of the collateral may be realized within a reasonable timeframe.[157] The CRR does not prescribe any specific enforcement approach. Hence, as long as remedies are expeditious, whether through extra-judicial or judicial enforcement mechanisms or alternative dispute resolution mechanisms, they may satisfy the regulatory expectation for a security right to be realizable within a reasonable timeframe. This is in line with the position of the UNCITRAL Model Law that recognizes the importance of swift enforcement mechanisms.[158] In contrast, the EBRD Model Law imposes formalities that may delay

153. CRR, *supra* note 14, art. 209(2)(f); BASEL II, *supra* note 12, ¶ 520 and BASEL III, *supra* note 13 ¶ 294. For the purposes of UCC Article 9 and the Canadian PPSAs, receivables obligors would be equated with account debtors.

154. For a cogent critique of the issues posed by these clauses, see Hugh Beale, Louise Gullifer & Sarah Paterson, *A Case for Interfering with Freedom of Contract? An Empirically-Informed Study of Bans on Assignments*, 3 J. BUS. L. 203 (2016). Clauses restricting assignments may be in the nature of a complete bar or a limited restriction, to the effect that assignment can only be to companies in the same group as the assignor. *See* Michael Bridge, *The Nature of Assignment and Non-Assignment Clauses*, 132 L.Q.R 57 (2016).

155. *See* UNCITRAL MODEL LAW, *supra* note 42, art. 13; EBRD MODEL LAW, *supra* note 43, art. 5.4; DCFR ch. IX, § 2:104(2). All are not limited to receivables and provide that generally a security right may be created in an asset even if its owner has agreed not to transfer it. French and German laws also override contractual restrictions on assignments of receivables in commercial contracts. *See* Beale, Gullifer & Paterson, *supra* note 154, at 227. Belgian law similarly renders anti-assignment clauses ineffective against third parties. Belgian Pledge Act, *supra* note 30, art. 64. For Canada, see CUMING, WALSH & WOOD, *supra* note 3, at 113. Gilmore notes that even prior to the enactment of UCC 9, contract rights moved to being completely assignable at law. GILMORE, *supra* note 25, at 213.

156. UNCITRAL MODEL LAW, *supra* note 42, art. 82.

157. CRR, *supra* note 14, art. 210(a).

158. UNCITRAL MODEL LAW, *supra* note 42, art. 73(2). Belgian law also recognizes the ability of the secured creditor to enforce its rights extra-judicially as long as it proceeds in a commercially reasonable manner. *See* Belgian Pledge Act, *supra* note 29, art. 47.

the enforcement beyond a reasonable timeframe by requiring registration of an enforcement notice and by suspending the final disposal of the collateral for at least 60 days after delivery of the enforcement notice to the debtor.[159]

Fourth, with respect to priority, capital requirements are trenchant and essentially associate reduced capital charges only to security rights with first priority.[160] The Basel Accords and the CRR do not prescribe any specific mechanisms to achieve highest priority, probably in consideration of the disharmonious solutions offered at the national level.[161] For instance, clear priority rules are commonly defined for security rights in the original collateral but they may be uncertain when the collateral is subsequently transferred, transformed or commingled. Due to the limited scope of application of the EBRD Model Law, the proceeds of collected receivables deposited in a bank account held with another financial institution have an uncertain priority status.[162] Conversely, the UNCITRAL Model Law extends the priority status of a security right over receivables to their proceeds.[163] The clarity of priorities may be further clouded when preferential claims are not set forth in a manner that allows secured creditors to assess the hierarchical status of their claims. A secured transactions law that embraces the regulatory understanding of security rights as devices to mitigate credit risk should state any preferential claims affecting the priority of secured creditors. This is the position advanced by UNCITRAL.[164] Such an approach appears to be a rarity, given that in most legal systems preferential claims are scattered in various legislative texts, often attesting to political considerations. This is evidenced by the diverse ranking of employees' preferential rights across European legal systems.[165]

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159. EBRD MODEL LAW, *supra* note 43, arts. 33.1.6 & 24.1 (Supplementary Registration Statement) & art. 24.1 (Measures for Realisation of Charged Property).

160. CRR, *supra* note 14, arts. 209(2)(b) & 210(b).

161. *See* José M. Garrido, *No Two Snowflakes are the Same: The Distributional Question in International Bankruptcies*, 46 TEX. INT'L L.J. 459 (2011).

162. The EBRD MODEL LAW, *supra* note 43, art. 5.10, extends the priority of the charge only to proceeds of an insurance policy on the charged goods.

163. UNCITRAL MODEL LAW, *supra* note 42, art. 32; *see also* DCFR ch. IX, §§ 4:104-4:105.

164. UNCITRAL MODEL LAW, *supra* note 42, art. 34. Neither the EBRD MODEL LAW nor the DCFR contain a similar provision.

165. In the United Kingdom, expenses of the administrators and employees' claims – together with the prescribed part for unsecured creditors – have priority over floating charges

A fifth issue that defines the concomitant application of these two branches of the law relates to filing requirements and its effects on security rights. Basel Accords and the CRR do not directly specify when a security right is perfected and what formalities should be met to consider a security instrument an eligible CRM.[166] However, the EU regulatory framework governing "specialized lending" suggests a specific regulatory understanding of the function attributed to registration and filing requirements. Specialized lending comprises various financing operations to finance physical assets and for which the primary source of repayment is the income generated by those assets, including power plants, aircraft objects and various commodities inventories.[167] Without much consideration of the different national rules governing registration and perfection of non-possessory security rights, the EBA specifies, "[a] *lien* is perfected by registering it with appropriate statutory authority so that it is made legally enforceable and any subsequent claim on that asset is given a junior status."[168] Such a provision reflects common national and international secured transactions laws that impose registration as the only mechanism to perfect security rights in specific assets, like

but not over fixed charges. *See* Insolvency Act, *supra* note 53; Enterprise Act, 2002, c. 40 (U.K.). In France, according to CODE DU TRAVAIL [C.TRAV.] art. L 3253-2, and CODE DE COMMERCE [C.COM] art. L 625-7 & L 625-8, the preferential rights of employees enjoy a super-priority claim over all claims, including security rights. In Italy, although the preferential rights of employees under art. 2751-bis of the CODICE CIVILE [C.c.] are subordinated to pledges, there is a plethora of preferential claims, scattered in various specialized provisions, which outrank certain categories of security rights.

166. BASEL II refers, by way of examples, to the fact that registration may be a legal requirement. *See, e.g.*, BASEL II, *supra* note 12, ¶ 123. This position is also maintained in the SECOND CONSULTATIVE DOCUMENT, *supra* note 23, ¶ 125 and has been ultimately codified in BASEL III, *supra* note 13 ¶ 140. The CRR does not contain any reference to registration in the context of non-possessory security rights, whereas it requires timely registration of a mortgage in art. 208(2)(a).

167. Eur. Banking Auth. (EBA), *Draft Regulatory Technical Standards on Assigning Risk Weights to Specialised Lending Exposures under Article 153(9) of Regulation (EU) No 575/2013 (Capital Requirements Regulation – CRR)* (EBA, Consultation Paper EBA/CP/2015/09, 2016). The final draft of this document is currently being examined by the European Commission for final approval.

168. *Id.* at 34, n. 43. Emphasis has been added to highlight the term *lien* that appears to be used as a synonym of *security interest*. The quoted text is repeated throughout the document and is contained in the footnotes every time the locution "first perfected security interest" is used.

aircraft and immovable property.[169] It also coincides with the general provisions on security rights in personal property as adopted in certain legal systems, including Belgium, France, Italy, as well as those countries following the EBRD Model Law.[170]

Nonetheless, the idea that registration is the sole mechanism to both render security rights effective and govern their priority is not in line with the approach adopted in various secured transactions law regimes. Following a rigid interpretation, a security right that is perfected without registration, or for which registration does not exclude the existence of entitlements with a higher priority – two common scenarios – may not lead to a discounted capital charge. For instance, under English law, registration does not govern priority; registered floating charges are subordinate to subsequently registered fixed charges (unless a negative pledge has also been registered with the floating charge) and, in trade finance, security rights are commonly perfected by taking possession of the bill of lading or other document of title.[171] Hence, the classic English adage that states "fixed charge is for priority, floating charge is for control,"[172] does not resonate with the concept of credit protection advanced in capital requirements, where the two elements, i.e. priority and control, should be concurrent rather than exclusive. In practice, this conceptual

169. *See* Convention on International Interests in Mobile Equipment ch. IV, Nov. 16, 2001, 2307 U.N.T.S. 285; Roy Goode, *Private Commercial Law Conventions and Public and Private International Law: The Radical Approach of the Cape Town Convention 2001 and Its Protocols*, 65 INT'L & COMP. L.Q. 523, 526 (2016).

170. According to the EBRD MODEL LAW, registration is a requisite to create one of the three types of charges, i.e. the "registered charge;" EBRD MODEL LAW, *supra* note 44, art. 6.1. In Italy, to establish a non-possessory pledge the agreement needs to be registered. Italian Non-possessory Pledge Law, *supra* note 32, art. 1(4). However, there are other security instruments that do not require registration. For an overview, see Giuliano G. Castellano, *The New Italian Law for Non-possessory Pledges: A Critical Assessment* 9 BUTTERWORTHS J. INT'L BANKING & FINANCIAL L. 542 (2016). In France, registration is often considered as a substitute for dispossession. *See* Rapport de Mme Cohen-Branche, Conseiller Rapporteur, *Cour de Cassation* (*Assemblée Plénière*), Nov. 6, 2009, no. 582 (08-17.095) [Report by Mrs Cohen-Branche, Reporting Judge, Court of Cassation (Plenary Assembly)]. In contrast, in Belgium, the parties may create an enforceable pledge upon execution of an agreement. Belgian Pledge Act, *supra* note 29, art. 2.

171. On floating charges, see *supra* note 51 and accompanying text. On perfection by taking possession of a negotiable document, including a bill of lading, see UNCITRAL MODEL LAW, *supra* note 42, art. 26.

172. Riz Mokal, *Liquidation Expenses and Floating Charges – The Separate Funds Fallacy*, L.M.C.L.Q. 387, 397 (2004) (referring to Jay L. Westbrook, *The Control of Wealth in Bankruptcy*, 82 TEX. L. REV. 795 (2004)).

separation elaborated by English common law is circumvented by combining floating charges, fixed charges and negative pledges. However, resorting to multiple legal instruments increases legal risk, as compliance with several formal requirements should be ensured and interpretative doubts may arise.[173] Hence, the different treatment for fixed and floating charges, emerging from the necessity to balance the interests of different affected parties, [174] does not offer a prudentially sound legal solution.

IV. THE UNFOLDING CONSEQUENCES

Secured transactions law and capital requirements affect lending behaviors simultaneously. Although there are some difficulties in determining the exact impact of secured transactions law on the availability and cost of credit, [175] empirical analyses have found a positive correlation between legal reforms facilitating secured transactions and availability of credit.[176] However, mirroring the scant attention to the connection between secured transactions law and prudential regulation, these studies – ascribed to the "law and finance" stream of literature – primarily focus on the correlation between enhancements in the protection of creditors' rights and access to external finance. [177] Similarly, the banking industry associates a

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173. For instance, there were some concerns over the effectiveness of negative pledge clauses and whether registration of such clauses could be inferred as a sufficient notice rendering them effective against third parties. *See* PETER E. ELLINGER, EVA LOMNICKA & CHRISTOPHER V. HARE, ELLINGER'S MODERN BANKING LAW 849 (5th ed. 2011). The problem has been largely resolved by the Companies Act, 2006 (Amendment of Part 25), c. 46, Regulations 2013, no. 600 (U.K.). *See* Louise Gullifer & Magda Raczynska, *The English Law of Personal Property Security: Under-reformed?*, *in* STLR: PRINCIPLES, POLICIES, AND PRACTICE, *supra* note 26, at 271.

174. *See supra* note 52 and accompanying text.

175. For a complete account of the most important findings in this field, see John Armour et al., *How Do Creditor Rights Matter for Debt Finance? A Review of Empirical Evidence*, *in* RESEARCH HANDBOOK ON SECURED FINANCING IN COMMERCIAL TRANSACTIONS 3 (Frederique Dahan ed., 2015).

176. It has also been noted that secured transactions law reforms have a greater positive impact on the availability of credit than insolvency law reforms. *Id.* at 13. *See generally* Rainer Haselmann, Katharina Pistor & Vikrant Vig, *How Law Affects Lending*, 23 REV. FIN. STUD. 549 (2009).

177. *See generally* Rafael La Porta et al., *Legal Determinants of External Finance*, 52 J. FIN. 1131 (1997); *see also* Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECON. 1113-40 (1998). More sophisticated analyses in this field consider a broader range of protections given to creditors. *See generally* John Armour et al., *How Do Legal Rules Evolve? Evidence*

reduction of credit availability and economic growth with the introduction of tighter capital requirements – thus implying a tension between economic growth and financial stability as earlier discussed.[178] Nonetheless, official and independent studies confute this position, stressing that the long-term benefits of a more stable banking system to stimulate lending and sustain growth.[179] How credit is distributed in accordance with legal systems that have modernized their domestic secured transactions laws while implementing capital requirements is empirically untested. Drawing from the analysis conducted thus far, it is possible to advance several significant considerations on the broader consequences of an increased availability of credit in jurisdictions deploying international capital standards for banks, with the intent to further empirical analyses.

While capital requirements apply exclusively to regulated credit institutions, secured transactions laws allow any individual or entity to act as a secured creditor. It stands to reason that the implementation of a reformed secured transactions law is more likely to benefit those lenders that are not affected by banking capital regulation, such as micro-lenders, leasing and factoring companies. Rather than understanding limited access to credit exclusively in terms of shortcomings in security rights regimes or as a consequence of capital requirements,[180] the documented reluctance of banks to take personal property as collateral should be explained also (if not primarily) as a function of the lack of coordination between the legal and the regulatory frameworks under which banks manage credit risk. The provisions on eligible collateral clearly prioritize financial

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from a Cross-Country Comparison of Shareholder, Creditor, and Worker Protection, 57 AM. J. COMP. L. 579 (2009).

178. *See supra* note 16 and accompanying text.

179. Different studies note that an increase of capital requirements has minimal negative impact on global GDP. *See, e.g.*, Patrick Slovik & Boris Cournède, *Macroeconomic Impact of Basel III* (OECD Economics Department, Working Paper No. 844, 2011); *See also* ADMATI & HELLWIG, *supra* note 4, at 5. At the national level, see Jonathan Bridges et al., *The Impact of Capital Requirements on Bank Lending* (Bank of Eng., Working Paper No. 486, 2014).

180. The first position is often advanced by international organizations; *e.g.*, INT'L FINANCE CORP. (IFC), SECURED TRANSACTIONS SYSTEMS AND COLLATERAL REGISTRIES 6-7 (2010). In the literature, see, e.g., Mehnaz S. Safavian, *Firm-Level Evidence on Collateral and Access to Finance*, *in* SECURED TRANSACTIONS REFORM AND ACCESS TO CREDIT 119 (Frederique Dahan & John Simpson eds., 2008). On the idea that capital regulation limits economic growth, see *supra* note 17 and accompanying text.

instruments and receivables, limiting banks' appetite for other collateral. For instance, security on intellectual property rights, promoted by UNCITRAL through a special set of recommendations,[181] may constitute an effective credit protection only in limited circumstances, given the intrinsic difficulties in assessing their value. In a similar vein, the suspicious attitude towards physical collateral in the Basel framework should be ascribed to the inherent concerns about their valuation and liquidity.[182] Historical data on the variety of tangible assets that may be taken as collateral is often unreliable or non-existent. Furthermore, even when reliable data can be sourced, the value of tangible assets tends to be more directly correlated with the borrowers' ability to repay their obligations and with the general economic conditions. Tangible assets are likely to suffer depreciation, either as a result of the borrower's default or as a reflection of the cyclical movements of the economy.

Against this backdrop, reforming secured transactions laws is not sufficient to broaden access to bank credit. Furthermore, the benefits (financial stability and increased access to credit) sought by prudential regulation and secured transactions must be measured against the simultaneous application of their dissonant logic when they intersect, i.e. when banks are secured creditors. The requisites for credit protection to reduce capital charges naturally constrain the ability of banks to take a number of assets as collateral and incentivize them to re-allocate their resources to less risky, therefore less capital intensive, activities.[183] The banking industry's retraction

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181. *See* U.N. COMM'N ON INT'L TRADE LAW (UNCITRAL), LEGISLATIVE GUIDE ON SECURED TRANSACTIONS: SUPPLEMENT ON SECURITY RIGHTS IN INTELLECTUAL PROPERTY (2010); UNCITRAL MODEL LAW, *supra* note 42, art. 1(3). On the relevance of security interests in intellectual property (IP) within current social and economic frameworks, see SECURITY INTERESTS IN INTELLECTUAL PROPERTY (Toshiyuki Kono ed., 2017) (examining several critical aspects, such as the relevance of IP rights and debt financing for SMEs, cross-border and international rules for taking, perfecting, and enforcing security in IP). For a forward-looking analysis concerning future legal developments to facilitate the use of IP licenses as collateral, see Andrea Tosato, *Security Interests over IP Licenses: Comparative Observations and Reform Suggestions*, 81 LAW & CONTEMP. PROBS. (forthcoming 2018). For an early and critical investigation of legal frameworks allowing the use of software copyright as source of (secured) financing, see KIRIAKOULA HATZIKIRIAKOS, SECURED TRANSACTIONS IN INTELLECTUAL PROPERTY: SOFTWARE AS COLLATERAL (2006).

182. *See* David Clementi, Deputy Governor, Bank of Eng., Speech at the Financial Services Authority Conference: Risk Sensitivity and the New Basel Accord (Apr. 10, 2001).

183. A limited supply of commercial loans by large European and U.S. banks was noted during the period preceding the 2007-2008 financial crisis. *See* INT'L MONETARY FUND,

from these lending operations results in a vacuum that is filled by non-bank operators that are not subject to capital requirements. Loans provided by non-banks often involve collateral and borrowers that are deemed too risky for regulated credit institutions. Through the introduction of a more favorable legal regime, borrowers previously excluded from the credit market are more likely to receive credit, even if at higher interest rates. It follows that by adopting a modernized and simplified legal regime for taking security rights in collateral, access to secured credit may be broadened; but its cost is not necessarily reduced as a result of a greater involvement of non-bank operators. This intuition is corroborated by empirical studies that register an increase in interest rates in connection with collateralized loans.[184]

If stimulating the development of unregulated credit markets is an unintended effect of the interaction between these two branches of the law, significant policy concerns emerge. Following the 2007-2008 financial crisis, it became clear that the Basel framework, while limiting excessive risk-taking, failed to impede the diversion of banks' capital towards (more risky) operations outside the regulatory perimeters,[185] thus rendering the financial system more fragile and regulatory strategies less effective. A core problem affecting the Basel framework was – and still is – represented precisely by the inadvertent implications caused by the common assumption of the

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GLOBAL FINANCIAL STABILITY REPORT 31 (2008). More recently, the retraction of the largest US banks from the market of small business financing has been noted by Brian Chen, Samuel Hanson & Jeremy Stein, *The Decline of Big-Bank Lending to Small Business: Dynamic Impacts on Local Credit and Labor Markets* (Harvard Business School, Working Paper, 2017), http://www.people.hbs.edu/shanson/BigBankSmallBiz_paper_20170905_FINAL.pdf [https://perma.cc/8S6V-W626] (archived Mar. 4, 2018). Furthermore, the European Central Bank (ECB) indicated that a large portion of SMEs financing in the United States and in the European Union is offered by non-banking institutions; *see Economic Bulletin - Trends in the External Financing Structure of Euro Area Non-financial Corporations* (Eur. Cent. Bank, Frankfurt, Germany), June 2016, at 29.

184. *See, e.g.*, Sergei A. Davydenko & Julian R. Franks, *Do Bankruptcy Codes Matter? A Study of Defaults in France, Germany and the UK*, 63 J. FIN. 565 (2008); James R. Booth & Lena C. Booth, *Loan Collateral Decisions and Corporate Borrowing Costs*, 38 J. MONEY CREDIT & BANKING 67 (2008); Sheng-Syan Chen, Gillian H. Yeo & Kim W. Ho, *Further Evidence on the Determinants of Secured Versus Unsecured Loans*, 25 J. BUS. FIN. & ACCT. 371 (1998).

185. Black, *supra* note 83, at 1058 (noting that the 2007-2008 financial crisis revealed, inter alia, a fundamental misalignment between the incentives of regulators, regulated entities, and other firms operating in financial markets).

coefficients used to determine capital charges.[186] In fact, pursuant to the risk-weighting logic of Basel II, certain assets, such as residential mortgages (and derivative products based on them), were subject to lower capital requirements than other investments, like corporate borrowings.[187] As a consequence, banks had strong incentives to invest in those assets in order to reduce their capital charges.[188] Furthermore, the low level of capital required to engage in those investments increased banks' leverage, increasing returns as well as risk exposures. These distortions in relation to residential mortgages have been partially addressed at the national level.[189] Nonetheless, international capital requirements still dis-incentivize banks to accept personal property as collateral,[190] whereas secured transactions law promotes their use.

The problematic nature of this diversion is represented by the phenomenon of "shadow banking," which is the activity of credit intermediation occurring completely or partially outside the banking

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186. *See generally*, Romano, *supra* note 11. Capital regulation incentivizes banks to invest in activities that are less risky, given that they cost less in terms of capital. Therefore, the attribution of different risk-weightings and the processes to calculate capital charges shape lending behaviors by determining banks' preferences. *See* Castellano & Dubovec, *supra* note 6. When capital regulation is perceived as a cost, banks may engage in practices of regulatory capital arbitrage, that is, the exploitation of the "differences between a portfolio's true economic risks and the notions and measurements of risk implicit in regulatory capital standards;" David Jones, *Emerging Problems with the Basel Capital Accord: Regulatory Capital Arbitrage and Related Issues*, 24 J. BANKING & FINANCE 35, 40 (2000). On this phenomenon, see also Erik F. Gerding, *The Dialectics of Bank Capital: Regulation and Regulatory Capital Arbitrage*, 55 WASHBURN L.J. 357 (2016).

187. For a convincing illustration in the context of the financial crisis, see Romano, *supra* note 11, at 13 (indicating that "a bank had to hold only $4 in capital for every $100 in residential mortgages, but it had to hold an even lower $1.60 for every $100 in MBSs with an investment grade").

188. For a discussion of the unintended consequences of the Basel framework, see Viral V. Acharya & Philipp Schnabl, *How Banks Played the Leverage Game*, *in* RESTORING FINANCIAL STABILITY: HOW TO REPAIR A FAILED SYSTEM 83 (Viral A. Acharya & Matthew Richardson eds., 2009); Viral V. Acharya, *The Dodd-Frank Act and Basel III: Intentions, Unintended Consequences, and Lessons for Emerging Markets* (Asian Dev. Bank Inst., ADBI Working Paper No. 392, 2012), *available at* http://dx.doi.org/10.2139/ssrn.2168006.

189. *See supra* note 94 and accompanying text.

190. For a comparison of the risk-weighting attributed to secured lending and credit derivatives, see Castellano & Dubovec, *Credit Creation: Reconciling Legal and Regulatory Incentives, supra* note 6 (noting that through a credit derivative, a commercial, unsecured loan may require the same amount of capital that is required if that very same loan were secured by a Treasury bond issued by the US government; whereas, commercial loans secured with personal property do not benefit from such a straightforward reduction of capital).

system.[191] In this respect, shadow banking has been eloquently described as a "shadow caused by the regulatory spotlight shining elsewhere."[192] A parallel may be drawn with the regulatory limelight that, through the eligibility criteria for collateral, points towards specific types of security instruments and collateral, leaving other forms of transactions and assets in the shadow of unregulated financial institutions, which may fully enjoy reformed secured transactions laws.

This dynamic emerges vividly from the experience of the People's Republic of China. In 2007, the country reformed its law pertaining to secured transactions to facilitate the creation and enforcement of security rights in accounts receivable, and equipment financing.[193] Prior to the enactment of the new law, factoring and leasing products were largely unavailable. The establishment of a new legal framework and a registry system maintained by the national central bank, The People's Bank of China (PBOC), significantly stimulated the growth of the leasing and factoring industries.[194] Simultaneously, the uncontrolled growth of debt accumulation outside the traditional banking system is, in China and elsewhere, one of the primary sources of concern.[195]

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191. FIN. STABILITY BD., STRENGTHENING OVERSIGHT AND REGULATION OF SHADOW BANKING: RECOMMENDATIONS OF THE FINANCIAL STABILITY BOARD 1 (2011).

192. Julia Black, *Seeing, Knowing, and Regulating Financial Markets: Moving the Cognitive Framework from the Economic to the Social* 47 (London Sch. Econ., Legal Studies Working Paper No. 24/2013, 2013).

193. Property Law of the PRC (promulgated by Fifth Sess. of the Tenth Nat'l People's Cong., Mar. 16, 2007, effective Oct. 1, 2007), No. 62 P.R.C. LAWS, Part IV (regulating security interests in personal property).

194. DALBERG, INDEPENDENT EVALUATION OF THE IFC SECURED TRANSACTIONS ADVISORY PROJECT IN CHINA 33-34 (2011) (noting that in China, "[t]he value of factoring grew from 2.6 billion Euros in 2003 to 67.3 billion Euros in 2009, according to data from Factors Chain International" and that the implementation, in 2009, of a registry for financial leases propelled the development of that portion of the secured credit market).

195. *See* Steven L. Schwarcz, *Shadow Banking and Regulation in China and Other Developing Countries* 4 (Duke Law School, Public Law & Legal Theory Series 2017-8) (indicating the reluctance of banks to lend to SMEs as one of the factors fomenting the development of shadow banking in China). *See also* Dan Awrey, *Law and Finance in the Chinese Shadow Banking System*, 48 CORNELL INT'L L.J. 1, 30 (2015) (noting that regulatory interventions set the stage for the development and rapid growth of the Chinese shadow banking system). For a broader perspective of the stability concerns in the regulatory framework, see Emilios Avgouleas & Duoqi Xu, *Overhauling China's Financial Stability Regulation: Policy Riddles and Regulatory Dilemmas*, 4 ASIAN J. OF L. & SOC. 1 (2017)

From the above, it appears that capital requirements contribute to shaping a market for secured credit in which assets or transactions deemed too risky to serve as eligible credit protection are instead employed by non-bank institutions. Whether the development of this form of credit outside the banking system is beneficial or poses a systemic threat depends on a number of factors.[196] Shadow banking activities in the form of asset-based lending, factoring and leasing, or even online lending,[197] are means to increase liquidity in the real economy and promote growth.[198] However, the uncontrolled development of this phenomenon poses serious risks. Since shadow banking institutions are highly leveraged, they are easily affected by cyclical movements in the value of collateral and are prone to liquidity shortages and defaults. Moreover, regulated banks are often part of the shadow-banking chain, to which they provide (directly or indirectly) funds, often by acquiring loans originated by shadow lenders.[199] Therefore, depending on the dimension of the non-banking

(indicating the connection between the Chinese banking sector and shadow lenders as a primary concern).

196. Professor Schwarcz analyzed the efficiencies and the market failures brought by the shadow banking system and noted that regulation might attempt to control some of those failures, but cannot eliminate them completely. However, regulation to limit the potential systemic threats primarily require the reduction of opportunities for regulatory arbitrage. Steven L. Schwarcz, *Regulating Shadow Banking*, 31 REV. BANKING & FIN. L. 619, 638 (2012). *See also* Erik F. Gerding, *The Shadow Banking System and its Legal Origins* (Jan. 24, 2012), *available at* https://ssrn.com/abstract=1990816 (noting the connection between shadow banking and capital arbitrage); Swati Ghosh, Ines Gonzalez del Mazo & İnci Ötker-Robe, *Chasing the Shadows: How Significant Is Shadow Banking in Emerging Markets?* 3 (World Bank, Economic Premise No. 88, 2012), http://siteresources.worldbank.org/EXTPREMNET/Resources/EP88.pdf [https://perma.cc/78GK-7KAM] (archived Mar. 4, 2018) (indicating excessive leverage and an amplification of pro-cyclicality, among the primary concerns posed by shadow banking to the stability of the financial system).

197. According to Morgan Stanley, in 2014 US online lenders originated US$12 billion in loans; *Can P2P Lending Reinvent Banking?*, MORGAN STANLEY (June 17, 2015), https://www.morganstanley.com/ideas/p2p-marketplace-lending [https://perma.cc/C6YV-L9AL] (archived Mar. 4, 2018); Todd Baker, *Marketplace Lenders are a Systemic Risk*, AMERICAN BANKER (Aug. 17, 2015, 9:30 AM), https://www.americanbanker.com/opinion/marketplace-lenders-are-a-systemic-risk. Dirk A. Zetzsche et al, *From FinTech to TechFin: The Regulatory Challenges of Data-Driven Finance*, 14 N.Y.U. J. L. & BUS. (forthcoming 2017) (indicating that through a trial-and-error process online lending platforms are perfecting their algorithms in order to measure the levels of risk of small borrowers who, in turn, are considered too risky by international banking regulation).

198. Ghosh et al., *supra* note 196, at 3.

199. Many shadow banking activities are conducted under the auspices of bank holding companies. *See* Manmohan Singh & James Aitken, *The (Sizable) Role of Rehypothecation in*

market and its connection with the banking system, systemic concerns may arise and, more generally, an uncontrolled accumulation of debt may lead to financial instability, as Minsky noted.[200]

The concomitant application of these two branches of law leads to two intertwined consequences. First, the effectiveness of secured transactions law reforms is curtailed by a regulatory framework that requires credit institutions to treat loans secured by collateral in the same guise as unsecured credit. Second, the availability of credit is fueled by financial institutions operating outside the banking system. Hence, the uncoordinated intersection of secured transactions laws and capital requirements, rather than their discrete application, hinders both access to credit and financial stability.

V. CONCLUSION

While equally concerned with the management of credit risk, secured transactions law and prudential regulation follow distinctive rationales and operational logics. The legal regimes governing security rights balance the antithetic interests of the parties affected by those rights. Within the boundaries imposed by such a balance, secured creditors and debtors enjoy significant freedom in negotiating the terms of their security agreement. In addition, valuation of the collateral, determination of the amount lent against its value, the frequency and mechanics of inspections and the general creditworthiness of a loan applicant are not a matter of secured transactions law. Conversely, prudential regulation, through capital requirements, controls the risk associated with banking activities. Hence, for the purpose of reducing capital charges, regulatory provisions recognize security rights as a valid form of credit protection only when they are deemed to curb the risks of failure of

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the Shadow Banking System (IMF, Working Paper No. 10/172, 2010). On the current connection between the traditional banking sector and shadow banking activities in the European Union, see Jorge Abad et al., *Mapping the Interconnectedness Between EU Banks and Shadow Banking Entities* (European Systemic Risk Board, Working Paper Series No. 40, March 2017). Through the lens of political economy, the connection between shadow banking activities and the banking system is even more profound, as shadow banking entities (de facto) participate in the creation of purchasing power, leading a distinguished economist to note that "shadow banking is, in fact, banking, creating currency for firms." GARY B. GORTON, SLAPPED BY THE INVISIBLE HAND 57 (2010).

200. *See* MINSKY, *supra* note 67.

individual banks and promote the stability of the financial system. To wit, balancing the interests of the parties affected by a security instrument do not necessarily lead to rules – on creation, perfection, priority, and enforcement of security rights – that accommodate the interests of public regulation.

The regulatory treatment of security rights over receivables, financial collateral and tangible assets reveals the depth of the dissonances between secured transactions law and capital requirements. These dissonances, in turn, have broad policy implications. In this respect, the assumption that reforming the law pertaining to security rights increases access to credit, by reducing its costs, is questionable. An uncontrolled accumulation of debt outside the banking system is ultimately stimulated when secured transactions law – facilitating credit creation – and capital requirements – limiting banks' appetite for certain types of security instruments and collateral – are applied concomitantly and in an uncoordinated fashion. As a result, availability of credit remains constrained and stability concerns emerge. Resolving these dissonances requires more than a mere attentiveness in legal drafting. International standard-setters and national law-makers should reconsider the policy aims and the beneficiaries of secured transactions law and prudential regulation, having in view that these two branches of the law intersect.