Coordinating Prudential Regulation and Secured Transactions Frameworks: A Primer

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### ACRONYMS AND ABBREVIATIONS

<table>
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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>MABL</td>
<td>Movable Asset-based lending (MABL)</td>
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<td>ECL</td>
<td>Expected credit loss</td>
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<td>IFRS</td>
<td>International Financial Reporting Standard</td>
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<td>IRB</td>
<td>Internal rating-based</td>
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<td>MSME</td>
<td>Micro-, small, and medium enterprise</td>
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<td>NBFI</td>
<td>Non-bank financial institution</td>
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<td>SME</td>
<td>Small and medium enterprise</td>
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<td>UNCITRAL</td>
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Introduction

The existence of a legal and regulatory environment where movable assets can serve as effective credit protection is of paramount importance for the development of a sound and inclusive credit ecosystem. To this end, modern secured transactions laws—governing creation, priority, third-party effectiveness, and enforcement of security rights on movables—have been implemented in a variety of jurisdictions. The socioeconomic benefits sought with the implementation of an efficient legal regime for secured transactions stem from the possibility for creditors to manage and curb the risks associated with lending activities. This, in turn, incentivizes lenders to extend more credit, reaching a larger portion of the population.

Secured Transactions Law Reforms: Objectives

Secured transactions law reforms are implemented to achieve the following socioeconomic benefits:

- Increase transparency in the credit market and promote legal certainty through the introduction of collateral registries and clear registry rules
- Expand the availability of credit using movable assets (tangible, intangible, and financial instruments) as collateral
- Promote credit diversification, facilitating access to credit for micro-, small, and medium enterprises (MSMEs)
- Mitigate lending risk and decrease the cost of credit
- Increase the number of credit recipients, improving the livelihood of benefitting female entrepreneurs

A legal framework conducive to secured transactions enables borrowers to use movable assets as collateral in order to gain access to capital. For instance, a farmer can acquire a new tractor with a loan secured with that tractor; in a similar vein, a seller of goods can pledge or sell receivables to finance its business operations or expansion.

All in all, a reformed secured transactions law facilitates the development of a variety of credit products. Such products range from simple installment loans that allow individuals to acquire consumer durables, such as motor vehicles and household goods, to sophisticated financial transactions, such as the securitization of receivables. Furthermore, some credit products can be developed to support the entire business cycle of the borrower – from the purchase of raw materials to the sale of finished goods, to the collection of receivables generated by the sale. Other products, such as leasing and receivables financing, can be deployed to focus solely on a single type of collateral and business needs. Yet, these kinds of financing schemes require coordination between legal reforms intended to increase access to credit, on the one hand, and regulatory regimes concerned with the soundness of financial institutions and the stability of the financial system, on the other.

Access to credit and financial stability represent complementary policy objectives. Hence, coordination between legal and regulatory regimes supporting the creation of credit is key to ensuring the simultaneous attainment of multiple policies. Such coordination, in turn, requires a cohesive strategy tailored to local needs and aimed at promoting a synergic implementation of international legal and regulatory standards.

This Primer is organized in five parts. Part A illustrates why coordination between secured transactions law reforms and prudential regulation is needed; in so doing, it identifies the core issues considered in this document. Part B introduces the rationale and key tenets of prudential regulatory regimes; specific attention is given to capital requirements and prudential loan-loss provisioning. Part C maps out the key constituencies of stakeholders in the coordination between secured transactions law and prudential regulation. Part D identifies a set of typical issues emerging from the reform experiences of several jurisdictions. Part E presents the key elements of the regulatory strategy to approach such issues. Conclusive remarks follow.
Movable asset-based lending (MABL) requires a series of enabling elements; reforming domestic secured transactions law alone might not be sufficient to deliver the socioeconomic benefits commonly associated with secured credit. The establishment of transparent credit-reporting standards, the existence of efficient insolvency rules, and the effectiveness of enforcement mechanisms are key to ensuring a predictable regime, where lenders are incentivized to extend credit while managing the risks associated with lending activities. In a similar vein, coordination between secured transactions law and a growing body of rules regulating financial products and institutions is of primary importance to support the establishment of a sound and inclusive credit ecosystem. Yet, such a coordination requires an understanding of the fundamental logics governing these branches of law that, albeit both pursuing complementary policy objectives, often adopt different terminologies and approaches. A case in point is offered by the very notion of “movable assets”, or “movable property”, used in secured transactions laws to indicate a variety of tangible and intangible assets, and the categorizations of different collateral under relevant prudential requirements.

A. Coordination: Key Issues and Approaches

Movable Collateral: Legal & Regulatory Understandings

As modern secured transactions laws enable a variety of credit products, the kind of movable assets that can be taken as collateral is heterogeneous and include, but it is not limited to, the following assets: (i) consumer durables (e.g. motor vehicles), (ii) equipment, (iv) raw materials, (v) inventory (e.g. of crops or commodities), (vi) accounts receivable, (vii) negotiable instruments, (viii) gold, cash or cash equivalent, (ix) bank deposits, (x) warehouse receipts, (xi) bills of lading, (xii) letters of credit, (xiii) securities, (xiv) credit card receipts, (xv) intellectual property rights, and (xvi) digital assets.

Regulatory regimes are likely to adopt a different terminology and attribute different treatments to transactions collateralized with different movables. For instance, reference to “financial collateral” or “financial assets” is often made to identify those assets, such as cash, gold, securities, or bank deposits, that are eligible to reduce credit risk and, thus, capital requirements. Whereas, consumer durables, raw materials, and equipment are often referred to as “physical collateral” and are not considered eligible to reduce capital requirements. Letters of credit, instead, might be subject to a special regime for off-balance exposures – rather than being considered as secured transactions, as it would occur in a commercial law context. Likewise, in some jurisdictions, arrangements secured by inventories of commodities or crops might not be considered as “collateralized transactions” but rather treated under a special set of rules.

This Primer focuses on the intersections with prudential regulation—intended as that branch of financial regulation aimed at ensuring the safety and soundness of financial institutions and markets. Specifically, the attention is on the body of rules governing capital and prudential provisioning requirements. At the international level, capital requirements are enshrined in international standards elaborated by the Basel Committee on Banking Supervision; whereas, prudential provisioning requirements are largely shaped at the domestic level. Collectively, capital and prudential provisioning requirements trace the regulatory perimeter for secured transactions. Coordination with these regimes is key due to a number of reasons.

First, the lack of coordination between legal and regulatory elements supporting the credit ecosystem might thwart the economic benefits of secured lending and related law reforms. For instance, loans secured with some movable assets – in particular, “physical collateral” like a motor-vehicle or a piece equipment – are likely to be treated in the same guise as unsecured lending for regulatory purposes. In these circumstances, transactions collateralized with real estate or domestic treasury bills enjoy a more favorable treatment than commercial lending secured with tangible assets. Moreover, in certain jurisdictions, credit products secured with receivables or that entail the repayment of an obligation through the cash-flow generated by the proceeds resulting from the sale of collateral might also be treated as unsecured credit.

Second, financial institutions must comply with a variety of
regulatory requirements and ensure the proper management of risks related to their activities. Domestic authorities, in turn, are tasked with monitoring their thorough implementation. If such regulatory requirements and supervisory practices have not been updated to consider the reformed secured transactions law, financial institutions might need to comply with regulatory and reporting requirements that are outdated, e.g. if reporting standards or supervisory expectations refer to formalities that have been superseded by the introduction of a modern collateral registry. More profoundly, even when not specifically enshrined in reporting requirements, lenders might be inclined to disregard or misapply the otherwise advantageous features of a reformed legal regime. In turn, if the core features of reformed secured transactions are not applied, the enforceability of legal rights over collateral might be compromised, and credit risk might not be effectively mitigated.

Third, the existence of a reliable regulatory framework that promotes market fairness, efficiency, and stability is key for the development of an inclusive and sound credit ecosystem. A key function of regulation is to instill confidence in financial markets (including credit markets). Bolstering confidence in the credit market, in turn, increases liquidity, promoting lending and sustainable economic growth.13

a) International Initiatives and Domestic Experiences

All in all, coordination between secured transactions law and financial regulation is key to promote secured lending and ensure that secured transactions law reforms achieve their full potential. Alignment with international secured lending standards is not sufficient in itself to realize an inclusive and sound credit ecosystem at the domestic level. In recent years, this challenge has progressively captured the attention of institutions active in promoting secured transactions law reforms. As an example, the United Nations Commission on International Trade Law (UNCITRAL) examined the regulatory dimension of secured transactions laws, indicating the need for coordination with prudential regulatory frameworks.14 Specifically, in its 2019 Practice Guide to the Model Law, UNCITRAL indicated a set of key regulatory issues that domestic regulators and regulated financial institutions should consider when operating in a legal environment that implements the UNCITRAL Model Law on Secured Transactions. Furthermore, regulatory matters are at the forefront of many institutions involved in secured transactions law reform, such as the European Bank for Reconstruction and Development.

The experience gained from the implementation of secured transactions law reforms in various domestic contexts indicates the importance of ensuring a constant engagement with domestic authorities entrusted with regulating and supervising the financial system. In particular, engagement with domestic regulators and central banks should start at the outset of a reform process. Even when regulators are not mandated to assist in the drafting of a new secured transactions law, their involvement in the reform has proved to be useful to the promotion of the use of MABL products in the domestic market and enhanced coordination between reformed secured transactions and prudential regulatory standards.
b) Fostering Coordination: The Way Forward

Effective coordination between legal and regulatory elements requires engagement with different constituencies of stakeholders. Sharing information on the regulatory dimension of MABL with lawmakers and judicial bodies is helpful for raising awareness of the broader implications that legal certainty, transparency, and predictability of rules have on the safety and soundness of the domestic financial system. Additionally, a dialogue with business enterprises can ensure the correct and effective application of relevant legal and regulatory standards while promoting a culture of compliance.

Addressing the challenges posed by the lack of coordination between legal and regulatory regimes cannot occur with mere tweaks or abolishment of existing domestic rules. Specific needs and local idiosyncrasies should be taken into account in order to design a cohesive reform strategy where regulatory standards are applied proportionally to domestic necessities and in alignment with international standards and best practices. The correct implementation of international legal and regulatory standards is instrumental to the mandates of the World Bank Group, the International Monetary Fund, and other multilateral development institutions. Therefore, in promoting secured transactions law reforms, the World Bank Group can provide assistance to domestic regulators, avoiding inconsistencies that might undermine confidence in domestic regulatory and supervisory frameworks.

A cohesive reform strategy is, thus, required to coordinate secured transactions law reforms—and secured lending practices, more broadly—with prudential regulation.\textsuperscript{15} By and large, this strategy aims to ensure coherence among legal and regulatory components supporting the credit ecosystem. Specifically, it ensures coordination between prudential regulatory regimes (governing capital requirements and loan-loss provisioning) and reformed secured transactions laws (governing use of movables as collateral). Accordingly, coordination with the regulatory components presupposes the existence of a modern secured transactions law and a functioning collateral registry. Nonetheless, the involvement of regulators at the outset provides the opportunity to undertake secured transactions reforms with these goals in mind. More generally, as the experience of Colombia and Zambia have indicated, regulators proved to be strategic partners in supporting the delivery of effective law reforms, and their participation at the early stages of the reform process facilitates the implementation of a cohesive set of legal and regulatory rules.

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**Colombia and Zambia**

In 2013, Colombia transitioned from a fragmented legal framework unsuitable for movables financing to a unitary, transparent system facilitating the use of movables as collateral. This process, which was led by the Ministry of Commerce (Ministerio de Comercio, Industria y Turismo) included the direct involvement of the Bank Regulatory Authority (Superintendencia Financiera de Colombia)—the Colombian agency responsible for preserving stability, integrity, and confidence in the financial system. The Superintendencia Financiera, together with other governmental agencies, participated directly in such reforms to provide the legal and financial certainty necessary to promote prudential lending using movables as collateral. Its role proved to be particularly crucial in the post-reform phase, when amendments to the existing regulatory framework (including those regarding eligibility and valuation of movables as collateral) were necessary to ensure coordination.

In 2016, the Zambian National Assembly enacted the Moveable Property (Security Interest) Act No. 3 of 2016. Pursuant to Part II of the Act, an electronic collateral registry for security interests was established and is housed at the Patents and Companies Registration Agency. In this context, the involvement of Bank of Zambia, the prudential regulatory agency in the country, was crucial for the successful completion of the project. Representatives of both Bank of Zambia and the Patents and Companies Registration Agency co-chaired the working group tasked with reforming secured transactions law. Moreover, Bank of Zambia provided insight into the needs and activities of financial institutions. Currently, as the secured transactions law reform has been completed, Bank of Zambia is looking to review and update its prudential framework concerning loan-loss provisioning and capital-adequacy standards to align more closely and support a movables-based lending environment.
Regulatory regimes concerning financial activities are typically classified into two broad categories. One category encompasses rules designed to protect the integrity of financial markets—that is, the ability of markets to operate fairly, efficiently, and in support of licit activities. For the most part, the protection of market integrity consists of measures aimed at both protecting customers, including retail, and regulating the conduct of financial institutions (particularly intermediaries).

A second category is represented by prudential regulation, which aims at maintaining the soundness of individual financial institutions and the stability of the financial system in its entirety. Drawing from this general definition, a distinction is commonly advanced separating microprudential policies, which are concerned primarily with the ability of individual financial institutions to withstand losses, and macroprudential policies aiming to strengthen the resilience of the financial system as a whole.

Albeit to a different extent, both branches of financial regulation are poised to interact with secured lending activities. The convergence between secured transactions law, conduct of business, and prudential regulation generates a legal phenomenon that has been labeled a “commercial law intersection.” MABL products are particularly prone to spawn such commercial law intersections, as they fall simultaneously within the purview of multiple sector-specific branches of commercial law, such as secured transactions, banking law, prudential and conduct of business regulation. Coordination between these intersecting branches is key to support the sound and sustainable development of secured credit products.

In particular, coordination between secured transactions law and prudential regulation represents the first and most urgent aspect that law reformers should take into account in order to promote a sound and inclusive credit ecosystem. This is primarily because two key prudential regulatory regimes—that is, capital requirements and loan-loss provisioning—are directly concerned with the treatment of risk associated with lending activities, including secured lending. Hence, coordination between these branches of law is achieved by promoting legal and regulatory coherence.

In order to promote coherence, intersecting legal and regulatory rules should be construed to be simultaneously consistent both with each other and their underlying policy objectives. For instance, a transaction secured with a tangible asset might not be eligible to reduce credit risk and, consequentially, collateral is not considered for the calculation of capital requirements. However, the same transaction might be considered as an exposure to SMEs subject to requirements that are more favorable than those normally applied to unsecured credit. In such circumstances, given that financial institutions have strong incentives to take collateral for risk management purposes, the interaction between legal rules and regulatory standards is unproblematic and consistency between their respective systems of rules and policy objectives is preserved. Hence, changes in regulatory standards not only would not yield any significant benefits but might also undermine the achievement of underlying policies.

However, depending on the jurisdiction, fostering coordination might not be as immediate and a cohesive strategy should be deployed. Hence, in order to address the diverse range of coordination issues that might emerge in different domestic contexts, it is crucial to identify the core tenets of prudential regulatory standards that are likely intersect with secured transactions law in the context of MABL products. The remainder of this Part offer a summary of the basic mechanisms underpinning of capital requirements and loan-loss provisioning in the context of secured transactions and MABL.

a) Scope of Application

Typically, financial institutions that are subject to capital requirements are those, like banks, authorized to receive demand deposits from the public and to extend loans. Accepting deposits places banks at the center of the financial system and renders them a key agent for economic growth. The core economic functions performed by banks—that is, savings mobilization, maturity transformation, and management of liquidity—allow for the conversion of savings into long-term investments. In addition, a sound banking system also promotes the development of alternative lenders. In fact, factoring and leasing companies, which do not have direct access to deposits, might also recur to bank financing for their business activities. Hence, banks
provide liquidity while ensuring that savings are sheltered from the risks associated with illiquid investments. However, for this mechanism to operate efficiently, savers, and especially depositors, must have confidence in the formal banking system. In fact, given that depositors are exposed to potential losses associated with the investment choices of banks without having the power to monitor their conduct, a problem of moral hazard emerges.\(^\text{19}\) Through these lenses, prudential regulation should be understood as a tool to promote confidence in the financial system by addressing risks that are inherent to lending and banking operations.

Although it is fair to state that capital requirements and loan-loss provisioning requirements have been devised primarily for traditional banking, non-bank financial institutions (NBFIs) might enter within the purview of prudential regulatory regimes. Over the years, NBFIs have become an increasingly important source of funding for both firms and households. In addition, depending on the jurisdiction, they often represent a counterparty in bank lending activities and, depending on the jurisdiction, they might also provide funds denominated in international currencies to banks.\(^\text{20}\) It is precisely the connection with the banking system and NBFIs’ engagement in intermediation activities that render them potentially harmful for the stability of the financial system, requiring specific regulatory measures.\(^\text{21}\) In this regard, the Financial Stability Board has been particularly active, and several initiatives have been launched to monitor the expansion of credit outside the banking system.\(^\text{22}\)

At the domestic level, the scope and approach of regulatory regimes for NBFIs varies considerably. Some jurisdictions extend banking regulation, including capital requirements and loan-loss provisioning, to NBFIs. This generally occurs when jurisdictions qualify lending, leasing, or factoring as regulated activities or “banking activities”. The result is that in some jurisdictions a banking license is required to offer MABL products, even when deposits are not collected from the public. Other jurisdictions regulate banking and non-banking activities under separate regimes, although licensing requirements might apply, and supervision is generally performed by the same regulatory authorities.

### b) Capital Requirements

Banks must maintain, at all time, a minimum level of regulatory capital. In this respect, regulatory capital is a cushion for the absorption of a reasonable level of unexpected losses, representing a mechanism to control the moral hazard associated with lending. Regulatory capital is calculated through a ratio, referred to as the capital adequacy ratio. Banks are thus required to maintain, at any point in time, a specific proportion of capital—primarily shareholders’ equity and debt instruments that are treated like equity—relative to the risks associated with their activities. In 1988, the First Basel Accord (Basel I) set, as an international standard, a risk-based approach to calculate capital requirements with a capital adequacy ratio at 8 percent. Under the risk-based approach, different coefficients—referred to as risk-weights—are attributed to various categories of financing transactions and borrowers.

In practical terms, for every financing transaction, banks must calculate a capital charge representing a portion of regulatory capital that is commensurate to the riskiness of that transaction. Capital charges are calculated by multiplying the amount of the loan by the prescribed capital ratio and the corresponding risk weights. Hence, the higher the risk-weight coefficient, the more capital is required. The Basel II Accord was adopted in 2004 and implemented in 2006 with the intent of increasing this risk sensitivity. Subsequently, several amendments to the Basel II Accord were negotiated to address the weaknesses that emerged during the 2007–2008 financial crisis. These efforts eventually led to the adoption of the Third Basel Accord (Basel III), which was finalized in 2017. Basel III maintained a three-pillar structure, introduced in Basel II, but introduced significant changes aimed at addressing macroprudential concerns as
well as limiting the discrepancies in the application of capital regulation across banks and jurisdictions. In addition, a few changes were introduced with respect to the calculation of credit risk for small- and medium-sized enterprises (SMEs) and specialized lending; these changes may be considered in devising a regulatory strategy, as further illustrated below in Section E(b).

In general terms, under Pillar I of the Basel framework, a domestic regulatory framework may implement a straightforward methodology, referred to as the standardized approach. Basel II introduced the possibility for banks either to rely on statutorily prescribed risk weights under the standardized approach or to apply internal rating-based (IRB) methodologies upon supervisory approval. Basel III maintained this possibility, although further limits have been introduced to the use of IRB approaches.

Many jurisdictions plan to implement or are implementing Basel III, supported by international efforts to foster regulatory consistency and supervisory coordination. These economies prioritize the implementation of the fundamental aspects of the post-2008 regulatory agenda, while paying particular attention to the enhanced definition of regulatory capital, the standards of liquidity risk, countercyclical buffers, the regime for domestic systemically important banks, and the large exposure framework. As further illustrated below, the new framework for credit-risk measurement and assessment is based on the blueprint set by Basel II. The result is that under the standardized approach the types of collateral that banks can use to calculate capital charges include only financial collateral, such as domestic treasury bills, cash, high-rated securities, and gold. The IRB methodologies allow banks to recognize additional forms of collateral, yet their implementation requires reliable data and sufficient capacity, both in the industry and among regulators (as further illustrated below). IRB methodologies are not commonly deployed by banks and banking systems of most of the jurisdictions where the WBG Secured Transactions Team provides assistance. This is due to a variety of reasons, including the complexities and difficulties associated with the implementation and supervision of such methodologies.

The previous regime of IAS39, provisioning allowances were determined based on incurred losses—that is, after a credit facility is reported impaired. IFRS9, by contrast, requires financial institutions to determine whether a financial asset, such as a loan, is unlikely to be repaid before incurring any loss and prior to the facility’s impairment (See the accompanying table for a comparison.) Under this approach, financial institutions should resort to historical data—adjusted to consider current conditions and objective indications of losses—as well as any other information that allows identification of possible losses that might occur in the future (expected losses).

IFRS9 requires financial institutions to recognize expected credit losses (ECLs) when loans are originated or purchased. Following initial recognition, credit risk should be regularly reassessed and may subsequently change due to relevant factors affecting either an entire portfolio of exposures or individual lending exposures. Given that the focus is on ECLs rather than incurred losses, every financial asset (even if performing) is subject to provisioning requirements and will have an accounting allowance. The improved risk sensitivity of IFRS9 is reflected in a classification that comprises different risk categories. Rather than distinguishing only between the two general categories provided under IAS39—that is, “unimpaired” and “impaired” financial assets—IFRS9 creates the following three categories:

- **Stage 1 (performing financial assets).** When a financial asset is originated or purchased, allowance is calculated to cover ECLs resulting from default events that are possible within the next 12 months (12-month ECL).
- **Stage 2 (underperforming financial assets).** If the credit risk has increased significantly since initial recognition and signs of potential impairment emerge, allowance is established to cover ECLs calculated based on the entire lifetime of such financial asset (ECL lifetime).
- **Stage 3 (nonperforming financial assets).** If credit risk increases to the point that a financial asset is considered impaired, allowance must cover any incurred losses and lifetime ECLs are recognized (ECL lifetime).

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c) Loan-loss Provisioning Requirements and Accounting Standards

Recent changes in the International Financial Reporting Standards (IFRS) elaborated by the International Accounting Standards Board have been affecting domestic policies on prudential loan-loss provisioning. In particular, while replacing IAS39, IFRS9 introduced a forward-looking approach to estimate losses on a credit facility. Under
The prudential requirements for loan-loss provisioning are intended to bridge a gap between accounting standards and capital requirements. Hence, the introduction of the IFRS9 forward-looking approach to calculate accounting allowances have posed and, in some jurisdictions, is still posing, relevant challenges. In broad terms, domestic prudential policies for loan-loss provisioning have been aimed at complementing the limited risk sensitivity of accounting standards by providing a prudential backstop. They did so by adding new categories, such as “substandard” or “special mention,” requiring banks to increase their allowances progressively as credit facilities deteriorate. Changes in the prudential provisioning requirements may require coordination with secured transactions law to ensure that the effects of collateral, where relevant, are properly considered.

As financial institutions are compliant with relevant accounting standards, such as IFRS9, prudential provisioning requirements are also adjusted. For instance, while ensuring sound backstops through prudential provisioning, firms can be incentivized to familiarize themselves with forward-looking models also for ABL products.

To ensure the implementation of prudential policies that are sufficiently risk sensitive, it is crucial to stimulate the acquisition of reliable data. Specifically, the effect of collateral should be calculated with data that demonstrates the risk-reduction effect that is effectively achieved in a given market for different ABL products. To this end, support to lenders and regulators could be offered to obtain and maintain data concerning the deployment of collateral for different ABL products. In particular, the recoverability of movable collateral and their recovery rates is of primary importance. Hence, coordination should be promoted through a holistic reform strategy aimed at gathering reliable data and promoting sound risk management practice, as part of general capacity building initiatives. As further illustrated below, the adoption of pilot programs might serve this purpose.

d) Domestic Implementation and Structure of Incentives

At the domestic level, international regulatory standards are implemented through a mix of primary legislative acts, delegated legislation, and administrative rules. Typically, the core elements concerning capital and liquidity requirements and supervisory functions are contained in legislative acts, whereas delegated legislation provides further details, and administrative guidelines specify supervisory expectations and procedures.

Furthermore, domestic laws and regulatory provisions are often designed to address specific vulnerabilities characterizing local economies and markets, rendering each regulatory environment unique. These distinctive features might have a direct impact on the success of secured transactions law reforms and, more broadly, should be taken into account when designing a strategy to develop an inclusive and sound credit ecosystem.

Prudential regulation does not prevent banks from extending loans; rather, it requires adequate regulatory capital and provisioning to absorb any losses, unexpected and expected, with respect to those loans. Regulatory capital is composed of a bank’s own funds and, thus, is more expensive than borrowed funds, such as deposits. This is to say that, from the standpoint of individual banks, capital regulation may be perceived as a cost even if maintaining sufficient levels of capital is key to preserving the stability of financial institutions and of the financial system as a whole.

Prudential regulation, together with other factors, influences the business decisions of financial institutions. In general, this is due to the fact that legal and regulatory regimes affect the structure of incentives of firms in different ways. In the context of capital regulation, depending on their risk appetite, banks might be incentivized to lower their exposures to credit risk in order to reduce capital charges and, thus, maximize their return on equity. In a similar vein, while banks may increase their provisioning through different channels,
prudential requirements may incentivize banks to minimize their exposures against nonperforming and problematic assets, in order to increase their resilience towards expected losses. In both instances, the regulatory framework may influence the decision of financial institutions. In the case of risk-based capital regulation, reduced capital charges apply when banks lend to borrowers with lower risk weights or when they implement credit-risk mitigations that are considered eligible to reduce credit risk. In the case of prudential requirements for loan-loss provisioning, both the classification of a credit facility and the recognition of collateral determines the amount of provisions.

As a consequence, capital regulation connects the amount of credit “by binding its creation to an amount of equity [own funds] that is proportionate to the level of risk acquired by each bank.”27 Hence, risk-weighting mechanisms steer the choices of individual banks, as they determine the costs of funding for the extension of credit. Differently, prudential loan-loss provisioning requirements connect provisioning reserves to the performance of loans, incentivizing banks to adopt a prudent approach.28

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**Zambia: Prudential Provisioning**

As part of the recent policy response for COVID-19, Bank of Zambia has incorporated some of the prudential guidelines to support a moveables-based lending environment. These additions have been implemented in accordance to Banking and Financial Services Act 2017 and are contained in the Banking and Financial Services Classification and Provisioning of Loans Directives 2020 (Directives). These Directives provide for a number of valuable changes, offering an illustration of the trajectory to promote coordination between secured transactions law and prudential regulation.

First, the Directives provide clarity on the use of internal models based on well-defined measures and processes for estimating expected credit losses, which should further promote the availability of asset-based lending products in the market. Reference to the Moveable Property (Security Interest) Act 2016 and to the requirements to perfect security rights established by that Act have been added. Moreover, specific mention to the registration method introduced with the secured transactions law reform was considered particularly useful, to promote a sound credit risk management. Second, the Directives do not rely solely onto the past-due criterion for the classification of loans-performing loans. Instead, they incentivize banks to adopt a forward-looking approach. The Directive has been published in the Zambia Gazette, April 3rd, 2020 issue.
C. Stakeholders

This part identifies the key groups of stakeholders that take part to the efforts of legal and regulatory coordination. Central to these efforts is the role played by regulatory agencies and central banks performing supervisory functions. Financial institutions, both banks and NBFIs, perform a key function in ensuring compliance to regulatory standards while developing and deploying ABL products. Whereas, borrowers, potential borrowers and the public at large are the ultimate beneficiaries of coordination efforts aimed at promoting a sound and inclusive access to credit.

a) Regulators and Supervisors

A key role in promoting legal and regulatory coordination is played by specialized administrative authorities, which typically perform both regulatory functions and supervisory tasks in line with international principles and best practices. Depending on their remits, the administrative authorities might be directly involved in drafting legislative acts implementing international standards. In addition, they are likely to be entrusted with the power to adopt binding rules in the form of administrative acts or guidelines. Supervisory functions typically include licensing and authorization powers, ongoing monitoring (on-site and off-site inspections), and product approval procedures. Furthermore, these authorities routinely require that banks provide detailed data required to identify and address systemwide vulnerabilities.

Though not always the case, it is not uncommon for domestic central banks to be involved in prudential regulation and related supervisory activities. Moreover, central banks might play an active role in pursuing access to credit policies. For instance, many central banks have also established credit registries to report loans exceeding a certain threshold as a form of supervision mechanism to identify systemic risk within the lending portfolios of the regulated financial institutions. Additionally, in a few jurisdictions, central banks may have been entrusted with overseeing the collateral registry once secured transactions law reforms have been completed.

b) Banks and NBFIs

At its broadest, prudential regulation translates into a set of compliance requirements embedded into the decision-making processes and organizational structures of financial institutions. Notably, banks are the primary addressees of capital and loan-loss provisioning requirements. However, in different jurisdictions, the extension of credit per se or specific activities like leasing and factoring may be regulated either under special regulatory regimes or under banking regulation. In addition, whenever leasing and factoring companies are established as subsidiaries of a banking institution, they may be subject to capital regulation under a consolidated approach.

Since this group of stakeholders is one of the primary beneficiaries of secured transactions law reforms, raising awareness among them is of particular importance. Pre- and post-reform engagement as well as capacity-building activities are particularly useful to promote the emergence of liquid and transparent secondary markets for collateral. Engagement might also be sought with initiatives that are targeted to specific groups of domestic economies—such as (M)SMEs operating in manufacturing or agricultural sectors. Vulnerable stakeholder groups and constituencies typically considered high risk would benefit greatly from outreach activities illustrating how movables can be used in access to credit and how collateral can be valued and disposed.

The involvement of different groups of borrowers and potential borrowers from the general public would allow banks to pilot new products and to gather sufficient information. Information should gauge the impact of collateral on credit risk and assess the liquidity of secondary markets for collateral. In addition, coordination with domestic regulators – as new products are developed, launched, and tested in new markets – would promote a collaborative environment, enabling them to monitor new products, build capacity, and acquire data on new products in a systematic fashion. Ultimately, if a sufficiently long history of reliable data is gathered, regulatory policies can be informed accordingly. In particular, provided the existence of consistent evidence, provisioning requirements can be fine-tuned to reflect different levels of risks associated to different types of collateral and ABL products. In addition, goals and realistic expectations for access to credit based on
movable collateral can be established as a part of a roadmap that is tailored to the local needs.
Recently completed secured transactions law reforms have produced mixed results in terms of promised credit growth, financial inclusion, and facilitating sound risk-management practices. Reasons for these results include a transition period for reforms to be understood, allowing stakeholders to familiarize themselves with the newly implemented legal framework and, in particular, financial institutions to develop and launch ABL products that comply with regulatory standards. This section presents some of the key challenges concerning the lack of coordination between the secured transactions law and domestic regulatory environment.

**a) Collateral Registry as Risk-Management Tool**

Although statistics concerning the usage of newly implemented collateral registries generally indicate an increase in registrations, closer analyses often reveal that a large portion of registrations relate to consumer financing of cars. Only a small percentage of registrations pertain to commercial asset-based loans secured by equipment, inventory, or receivables. Furthermore, examination of collateral registries in a number of economies might reveal the emergence of conduct that is not prudentially sound. For instance, an increase in registrations that is grossly disproportional to the number of searches may indicate that some lenders do not perform adequate due diligence. In principle, searches should be (at least) double the number of registrations, given that prudent lenders are expected to search the registry before registering a notice and then do occasional searches as circumstances necessitate. Thus, a low number of searches is a potential indicator of weak risk-management practices and credit policies. Another indicator of weak credit risk management practice is the disproportion between the number of movables-based loans being reported to the regulator and those being registered in the collateral registry. A number of registrations that is significantly lower than the amount of secured loans reported for accounting and regulatory purposes might signal the existence of unperfected security interest. Large volumes of unperfected security interests, in turn, can lead to legal uncertainty for third parties and might give raise to prudential concerns, as credit risk is not properly mitigated.

**b) Regulatory Compliance and Law Reforms**

Absence coordination between secured transactions law reforms and prudential regulation, the deployment of sound risk-management practices may be hindered. The crucial problem is that regulatory regimes concerned with the prudent management of risk might not account for the mitigation of credit risk afforded by the implementation of a modern secured transactions law and collateral registry. Furthermore, in some jurisdictions, regulatory and reporting standards may explicitly refer to pre-reform mechanisms for creation and perfection of security rights. As a result, a paradoxical situation emerges: financial institutions are formally compliant with domestic regulatory standards even if they fail to adhere to the reformed secured transactions law. Such a result is problematic for the following reasons:

- First, compliance with regulatory standards that are not updated to the reformed legal framework does not ensure the effective mitigation of credit risk, given that priority could be lost.
- Second, prudential regulation shaped around unreformed secured transactions frameworks typically displays a suspicious attitude toward lending secured with movables. Such skepticism is rooted in the fact that pre-reform secured transactions laws generally have significant deficiencies—for example, not allowing for the predictable allocation of priorities or the expeditious enforcement of security interests.

From the above it emerges that, without an effective effort to enhance coordination, neither sound credit-risk management nor lending against collateral is incentivized.

**c) The Regulatory Treatment of Collateralized Transactions**

Under the standardized approach, the types of collateral that banks use to calculate capital charges include only highly liquid assets (financial assets), such as funds held in deposit accounts with the bank itself, gold, and investment-rated securities. Security rights on tangible movable collateral (also referred to as “physical collateral”) are typically not recognized for capital adequacy purposes. In addition to this
regime, the standardized approach offers other methods that
deserve special attention in the context of trade finance and
for the development of MABL products. First, transactions
where commercial letters of credit are used to finance
imports and exports of goods can be taken into account when
capital charges are calculated through a credit conversion
factor for off-balance-sheet exposures. Second, personal or
public guarantees as well as insurance policies might also
be considered for credit-risk mitigation purposes; if specific
conditions are met, the risk weighting of the grantor replaces
the risk weighting of the borrower for the portion of the loan
covered by the guarantee.

If authorized, banks may adopt IRB approaches and then
rely on their own internal estimates of risk components
to calculate capital charges for a given exposure. Risk
components include the probability of default, loss given
default, exposure at default, and effective maturity. IRB
banks may recognize additional forms of collateral, such
as certain financial assets, digital assets, and physical
collateral, subject to meeting further conditions.33 However,
Basel III, reflecting a general skepticism toward the ability
of those models to reflect accurately the risks assumed by
banks, has limited the use of IRBs with the introduction of
minimum floors and risk categories. Banks may be required
to use a value established by national regulatory authorities,
rather than an internal estimate, for one or more of the risk
components. In order for banks to obtain approval to use
their own estimated values of loss given default, the estimate
must be grounded in historical recovery rates and not based
solely on the collateral’s estimated market value.

In practice, the effective application of IRBs requires banks
and domestic supervisors to familiarize themselves with
sophisticated models, acquire reliable data, and comply with
several disclosure requirements. Those conditions might
be difficult to achieve in the context of (M)SME lending
generally and in developing economies in particular, given
that historical data on recovery rates might be nonexistent.
In this respect, it is not uncommon for jurisdictions to be
aligned with Basel II (or Basel III) without implementing the
IRB regimes for credit risk.

Furthermore, in the context of MABL, the application of
IRBs is problematic. In addition to the lack of reliable data,
there is also a problem of insufficient expertise both in the
industry (to construct reliable models) and in regulatory
circles (to vet, approve, and monitor the usage of internal
models). In practice, this might imply that loans secured
with movables are treated, for the purpose of calculating
capital requirements, in the same guise as unsecured credit.

**d) Prudential Loan-loss Provisioning and Capital Requirements**

Without a coordinated approach, prudential requirements
for loan-loss provisioning might not consider the risk-
mitigation effect of movable collateral. Albeit a reliable
and consistent set of data on various MABL products is
needed in order to inform regulatory policies, such data
should be gathered within a stable legal and regulatory
environment, where key building-blocks are coordinated.
When loan-loss provisioning requirements are implemented,
coordination with both capital requirements and accounting
standards—in particular IFRS9—is often ensured. However,
notwithstanding the best efforts in this regard, many
jurisdictions might not have a fully coordinated system. For
instance, the impairment criteria under capital requirements
may differ from the one contained in prudential provisioning
requirements or might not be aligned with new accounting
standards. This typically occurs when key definitions of
“default” are not uniform (across capital and provisioning
requirements) or when the treatment of fully collateralized
loans is not clear. Ultimately, this leads to the paradoxical
situation in which secured transactions law reforms
incentivize the use of movable assets as collateral to reduce
credit risk, whereas, in practice, movable assets might not
be reflected neither in the calculation of capital charges
for the absorption of unexpected losses nor in prudential
provisioning to cover expected losses.

**e) Secondary Market for the Disposal and Valuation of Collateral**

For the establishment of an inclusive credit ecosystem where
secured transactions provide an effective device to manage
credit risk, the existence of secondary markets for collateral
is essential. However, data on movable collateral commonly
used by small businesses—particularly by MSMEs—is
limited. Without a transparent pricing mechanism, the
ability of financial institutions to consider movable assets to
serve as an effective risk-management device is significantly
impaired; absent reliable and publicly available data, the
recovery rates, time, and costs cannot be properly assessed.

**f) Development and Launch of MABL Credit Products**

Lack of coordination between legal and regulatory components
of the credit ecosystem may disincentivize banks to develop
and launch ABL credit products, particularly those targeting
small borrowers. A reformed secured transactions framework
may provide the drive and necessary legal infrastructure
for the development of innovative lending products using
tangible and intangible movables as collateral. However, a prudential regulatory environment that is unable to gauge (e.g., due to sufficient evidence) the risk-mitigation abilities offered by a reformed secured transactions framework may treat secured and unsecured products in the same manner. As a result, development of MABL financing, combining collateral and other risk mitigants to lessen the risk of lending to SMEs, is not incentivized.
E. Addressing the Challenges by Developing a Regulatory Strategy

Addressing the aforementioned challenges cannot occur through shortsighted regulatory adjustments. As noted earlier, uncoordinated changes in the regulatory framework might depart from international standards and undermine confidence in the domestic credit market. A cohesive reform strategy should be implemented based on the legal, regulatory, and economic idiosyncrasies of the jurisdiction under consideration, and care should be taken neither to compromise alignment with international standards nor to weaken the domestic regulatory framework.

Such a strategy should aim at ensuring coordination between legal and regulatory components of the credit ecosystem by putting forward a holistic approach whereby financial inclusion, responsible lending, access to credit, financial stability, and market-integrity policies are pursued concomitantly. The core elements of a holistic strategy are presented in this section.

a) Mapping and Understanding the Domestic Environment

Diagnostics of existing regulatory standards for risk management, loan-loss provisioning, and capital regulation will help identify the core elements of the regulatory strategy. Such a diagnostic, part of a legal and regulatory due diligence process, should map different aspects, including current and planned alignment with the Basel Capital Accords, possible inconsistencies between domestic reporting standards and the reformed secured transactions law framework, and other elements that might affect the extension of credit to MSMEs and the use of movable assets as collateral. Mostly, the required diagnostic involves desk-based research. In addition, interviews with regulators, supervisors, and financial institutions would contribute insights about the landscape, risk trends, regulatory philosophy and approaches. Engagement with other key stakeholders is aimed to stimulate awareness and pave the way to a collaborative reform process.

Regulatory Diagnostic

The key elements of the diagnostic should include the following:

- An analysis of (i) prudential requirements for loan-loss provisioning, including loan classification for impaired credit facilities (collateral should not influence such a classification, the analysis is part, however, of the general diagnostic); (ii) guidelines and supervisory expectations for credit-risk policies and risk-management procedures; and (iii) capital requirements potentially applicable to MABL products.
- An assessment of the applicable rules for banking and non-banking institutions that offer or are in the process of developing ABL products. The assessment will determine key compliance requirements and possible inconsistencies. In some cases, an assessment of the compliance requirements to launch specific products—for example, supply-chain finance products—might be helpful to identify general gaps and present possible solutions.
- A survey of existing programs designed to stimulate access to credit, financial inclusion, and technological innovation, such as public guarantees.
- An analysis of the macroeconomic and macroprudential conditions. Crises and other sources of instability might have shaped the existing regulatory environment. Hence, any suggestions to modify regulatory elements should fit into the general policies of the considered jurisdiction.

Broadening the Diagnostic: A Macroprudential Understanding of Lending Rules

Specific prudential concerns and vulnerabilities would be revealed by reports, such as those offered by the Financial Sector Assessment Program; results from central bank stress testing; and other assessments, such as those aimed at measuring the level of implementation of capital requirements, as well as engagements with domestic regulators. Identified vulnerabilities might explain why regulatory requirements are particularly stringent with regard to certain practices and may indicate where supervisory resources are directed.
Stakeholders

Engagement with relevant stakeholders from the very beginning is of primary importance. In particular, the following activities should be considered:

• Engage with prudential regulators to raise awareness on the issue and indicate the necessity of pursuing access to credit and financial stability concomitantly.
• Illustrate to prudential regulators the key features of the reformed legal framework for secured lending and indicate the impact that the new law will have on the compliance process of regulated firms and, more broadly, on the regulators’ mandate.
• Discuss with the regulators the general objectives of a possible strategy to address existing hindrances and foster coordination. The aim is to establish a collaborative environment.
• Foster coordination between financial institutions developing (or planning to develop) MABL products and regulators tasked to approve and evaluate such products from a prudential standpoint.

Market Analysis

Market- and firm-level analyses and surveys would further the understanding of existing constraints and advance possible solutions. In particular, the following elements should be considered:

• Survey existing credit policies and systems for internal controls that have been adopted by the industry for movable MABL. This survey should aim at assessing whether credit-risk policies and systems of internal controls have been adapted to coordinate with the new law.
• Survey existing or potential secondary markets for movables in order to determine potential credit products that could be launched within the existing legal and regulatory environment.

b) Regulatory Strategy: Key Elements

For a regulatory framework to incorporate the benefits of a reformed secured transactions law, amending specific rules, as outlined above, might not be sufficient. Once a new secured transactions law has been implemented, different components of the domestic credit environment need to be coordinated. Depending on the broader legal and regulatory framework, as well as specific economic conditions, a recalibration of regulatory elements in line with international standards requires data.

Objectives

As prudential policies should follow a risk-based and data-driven approach, information on the functioning of the domestic credit market must be collected and analyzed in order to suggest targeted policy changes. Data may be generated directly by the financial institutions and through various support and complementary mechanisms, such as public guarantee schemes, existing (or soon-to-be-established) sandboxes, and the launch of pilot programs that are designed to facilitate small-business financing and ABL.

Based on these considerations, a reform strategy should aim to

• Integrate secured transactions law reforms cohesively with domestic legal and regulatory frameworks (based on international standards);
• Promote a culture of regulatory compliance to incentivize a prudent and sustainable extension of secured credit, including through the gradual but steady introduction of MABL products; and
• Generate and gather reliable data on the performance of secured transactions reforms and, specifically, on the risk-mitigation effects of ABL and products in order to inform regulatory reforms while enhancing capacity building.

Alignment of Domestic Regulatory Framework with International Standards

A strategy that simultaneously promotes various policy goals must be grounded in a thorough implementation of regulatory and prudential policies enshrined in international standards and best practices. Deviation from such standards could have far-reaching consequences, including reduced availability of credit. In this respect, the primary aim is to promote consistency between the legal and regulatory frameworks.

Interventions aimed at stimulating access to credit through secured lending should be presented as an element that complements a timely, full, and effective implementation of international regulatory standards, thus contributing to building a resilient and inclusive financial system. In this regard, other than credit-risk mitigation mechanisms, coordination between access to credit policies and financial inclusion might be achieved through the implementation of other elements of the prudential regulatory framework. In particular, the Basel framework provides other mechanisms to calculate capital charges when a bank lends to SMEs, or when exposures are secured against certain types of movable assets, such as certain types of inventory and the proceeds...
generated by their sale, accounts receivable, or credit card receivables. In the standardized approach, such mechanisms include risk weights for: 37

(i) Regulatory retail portfolio;
(ii) SMEs, which might also include microenterprises; and
(iii) Specialized lending.

Under the regulatory retail portfolio regime, a risk weight of 75 percent is applied to the entire portfolio of loans extended to individuals and small businesses, rather than weighting the risk for each individual loan. In addition, a special category of exposures with risk weighting of 85 percent has been introduced with Basel III for SME loans that do not qualify for the regulatory retail portfolio. Finally, some MABL products might fit in one of the categories of specialized lending (typically, in the case of inventory financing for commodities and crops). However, treating an MABL product as a specialized lending exposure might occur only in sophisticated environment and with a specific kind of transactions, generally involving large and experienced regulators and SMEs.

Possible Regulatory Adjustments

Some calibrated adjustments in domestic regulatory frameworks might be required in order to ensure a coherent legal and regulatory framework. For instance, prudential provisioning requirements and guidelines for credit-risk policies might need to be updated to reflect a reformed secured transactions law framework. This might include, among other things, a reference to the use of collateral registries as part of sound risk-management practices and compliance procedures, enforcement remedies, and mechanisms to exercise control over movables and over the proceeds resulting from their disposal. As the experience of Zambia demonstrates, reference to these features of secured transactions law reforms provides guidance to both supervisors and regulated entities on the changes that are required for a prudent management of credit risk. This means that financial institutions would be required to embed in their internal systems of controls procedures to search the collateral registry, register their notices in a timely manner, and, more generally, ensure the enforceability of their security rights. As a consequence, auditors and supervisors performing on- and off-site inspections would then consider searching the collateral registry as a benchmark to assess whether sound risk-management practices have been implemented in a given financial institution.

Additional changes might be considered to promote sound regulatory compliance. For instance, regulatory guidelines could point to the applicable secured transactions law, noting the perfection requirements, other than registration, that financial institutions may deploy to secure their priority (for example, control of bank accounts). With respect to legislative changes, the diagnostic might reveal that some laws could benefit from modifications—for instance, to ensure that the definition of “default” applied to determine when a credit facility is nonperforming is consistently implemented in capital adequacy standards and prudential requirements for loan-loss provisioning.

Beyond Regulatory Adjustments: Developing Secondary Markets and Conducting Pilot Programs

Coordination between secured transactions law reforms and prudential regulation requires designing jurisdiction-specific reform strategies. 38 Fostering the establishment of secondary markets for movable collateral is of critical importance. The documented existence of liquid secondary markets allows regulated financial institutions to assess their exposures more accurately for the purpose of calculating capital and provisioning requirements (if allowed under domestic regulatory regimes). Furthermore, the existence of such markets is pivotal to the banks’ need to assess the value of collateral and the protection offered.

However, the lack of a transparent pricing mechanism and, more generally, the absence of sufficient data on the realization of collateral commonly used by MSMEs might limit the ability of financial institutions to consider movable assets as an alternative repayment mechanism. Moreover, when prudential regulatory requirements establish fixed risk weightings to calculate capital charges or provisioning allowances, financial institutions might not be incentivized to gather more data concerning the realization of movable collateral. Therefore, the extent to which movable collateral curbs the credit risk remains undetermined.

In order to reverse this trend, more data on collateral and credit products should be gathered. To this end, different methods can be deployed. For instance, the World Bank Group is working in Jamaica to assess the development of secondary markets for movable assets and the viability of MABL products. In general, existing sandboxes and public guarantee programs could offer a solution to generate and gather data as well as to test the use of different MABL products. Such programs might allow for selected financial institutions to deploy lower capital requirements and more favorable loan-loss provisioning, given the protection offered by the guarantee. In turn, selected financial institutions that participate in the scheme could be requested to collect key
variables, such as expected losses and loss given default when collateral has been implemented. Time of enforcement, valuation, and other parameters might also be gathered. The results of such analyses and pilot programs can be used to adjust regulatory parameters while ensuring alignment with international standards.

The data gathered would affect key determinations, including the existence and viability of secondary markets for collateral and the effective risk reduction offered by different movable-based products. It follows that data must be reliable and must meet regulatory standards. In this regard, this element of the strategy would benefit if it were conducted through a pilot project where one or more firms—banks and NBFIs—cooperated with the International Finance Corporation team. Information gathered and parameters would need regulatory approval; thus, the coordination with domestic regulatory authorities could facilitate this process. Pilots of this nature can dovetail with existing programs aimed at stimulating capacity building, developing secondary markets, and incentivizing the development of MABL credit products for MSMEs in a prudential and sound manner.
Coordination between secured transactions law and prudential regulation is key to supporting the establishment of a sound and inclusive credit ecosystem. A comprehensive regulatory strategy tailored to domestic needs is required to unlock the full potential of secured transactions law reforms and promote lending to MSMEs through movable asset-based financing. To this end, early engagement with regulators and central banks has proved to be strategic to both raise awareness among financial institutions and define adequate regulatory approaches.

The World Bank Group’s Secured Transactions Team has been working with many jurisdictions to support coordination between regulatory regimes and secured transactions frameworks. Such efforts pursue the twofold objectives of increasing access to finance—with particular attention to the needs of MSMEs and female entrepreneurs—and maintaining financial stability. Drawing from these experiences, the team is now aiming to produce a more comprehensive guide to facilitate the implementation of a comprehensive regulatory strategy.

Conclusion
References

4. In this regard, the high-level principles elaborated by the Group of Twenty and the Organisation for Economic Co-operation and Development (OECD) noted that policy makers should encourage the use of movable assets as collateral to facilitate access to capital for small business; see Effective Approaches for Implementing the G20/OECD High Level Principles on SME Financing, OECD (July 2018), http://www.oecd.org/g20/Effective-Approaches-for-Implementing-HL-Principles-on-SME-Financing-OECD.pdf
5. On the impact of collateral on the cost of credit, see Castellano, supra note 2, at 618; see also Love et al., supra note 2.
7. See Castellano, supra note 2.
9. See Knowledge Guide on Secured Transactions, Collateral Registries and Movable Asset-Based Financing, WORLD BANK (2019) at 31, http://hdl.handle.net/10986/32551. The idea of devising a domestic strategy to implement international standards aimed at modernizing secured transactions law has been advanced in Castellano, supra note 2 (noting the need for a reform strategy to implement secured transactions law domestically). The core traits of the strategy to coordinate secured transactions law and prudential regulation at the domestic level have been put forward in Giuliano G. Castellano & Marek Dubovec, Bridging the Gap: The Regulatory Dimension of Secured Transactions Law Reforms, 22 UNIF. LAW. REV. 663, 684 (2017) (noting that “[a] comprehensive regulatory strategy, rather than ad hoc interventions, is required to unlock the full potential of secured transactions law reforms.”), https://ssrn.com/abstract=3076082.
11. Id.
13. See Castellano & Dubovec, supra note 8, at 539.
14. The proposal for this work was first formulated during the UNCITRAL Colloquium on Secured Transactions in Giuliano G. Castellano, Secured Transactions Law and Capital Requirements: Enhancing Access to Credit and Financial Stability, United Nations Commision on International Trade Law (2017), http://www.uncitral.org/uncitral/en/commission/colloquia/4thint.html, and during the UNCITRAL 50th Anniversary Congress; see Giuliano G. Castellano and Marek Dubovec, Coordinating Secured Transactions Law and Capital Requirements, http://www.uncitral.org/pdf/english/congress/17-06783_ebook.pdf. The supporting research was advanced in Castellano & Dubovec, supra note 8; Castellano & Dubovec, supra note 1 (focusing on the conflictual incentives that a lack of coordination between secured transactions law and capital requirements generate); and Castellano & Dubovec, supra note 9 (indicating possible solutions and advancing recommendations to address the lack of coordination between secured transactions law and capital requirements). Based on these findings, the Plenary Session of the UNCITRAL mandated Working Group VI to include in the Practice Guide to the Model Law on Secured Transactions a chapter on the connection between secured

15. Castellano & Dubovec, supra note 9.


17. In this context, legal coherence is intended as the lack of contradictions and the logical compatibility among legal and regulatory rules governing the transaction under consideration, see Castellano & Tosato, supra note 16 at 29-31. This is to say that, collectively considered, legal and regulatory rules should design a logical system of rules and deductions to govern different aspects of ABL products.

18. Castellano & Dubovec, supra note 8, at 586.

19. Castellano & Tosato supra note 16, at 44, indicating that, in banking, regulatory regimes have been often developed to address the moral hazard issues arising from the legal qualification of the depositors-bankers relationship; that is a creditor-debtor one.


21. Castellano & Dubovec, supra note 1, at 84.

22. The Financial Stability Board (FSB) was established in 2009 and has been mandated to monitor and assess vulnerabilities affecting the global financial system. It reports to the Group of Twenty and proposes recommendations to address the vulnerabilities it identifies. Since 2011, the FSB has been conducting an annual survey to monitor global trends and risks related to NBFIs. The FSB is composed of the representatives of 25 central banks and monetary authorities. The Basel Committee on Banking Supervision cooperates with the FSB and, together with other standard setters and international financial institutions, such as the World Bank Group and International Monetary Fund, is one of its members; see https://www.fsb.org.

23. The Basel Committee on Banking Supervision closely monitors and reports to the Group of Twenty on the implementation of the Basel Capital Accords in its 27 member jurisdictions; see Implementation of Basel Standards: A Report to G20 Leaders on Implementation of the Basel III Regulatory Reforms, Basel Committee on Banking Supervision (2018), https://www.bis.org/bcbs/publ/d453.htm. In addition, a study found that 100 jurisdictions that are not members of the Basel Committee on Banking Supervision have implemented some version of the Basel risk-based capital regime, while most have implemented, in some manner, quantitative liquidity standards and the large exposures rule; see Stefan Hohl, Maria Cynthia Sison, Tomas Stastny, and Raihan Zamil, The Basel Framework in 100 Jurisdictions: Implementation Status and Proportionality Practices, Financial Stability Institute Paper No. 11 (2018), https://www.bis.org/finpub/insights11.htm.


26. The tendency of banks to maximize return on equity by reducing the cost of capital has also been associated with strategies that might result in a mismatch between the risk accounted for regulatory purposes and the actual risk; see David Jones, Emerging Problems with the Basel Capital Accord: Regulatory Capital Arbitrage and Related Issues, 24 Journal of Banking & Finance 35 (2000); Erik Gerding, The Dialectics of Bank Capital: Regulation and Regulatory Capital Arbitrage, 55 WASHBURN L. J. 357 (2016).

27. Castellano & Dubovec, supra note 1, at 71.


30. In this context, a credit registry refers to an internal credit-reporting registry or credit information agency.
33. In addition to credit-risk mitigation techniques, the Basel framework provides other mechanisms to calculate capital charges when a bank lends to SMEs; see infra Part E (b). For an analysis of the regulatory treatment of digital assets in the context of secured lending see Distributed Ledger Technology and Secured Transactions: Note 2. Regulatory Implications of Integrating Digital Assets and Distributed Ledgers in Credit Ecosystems, WORLD BANK (2020), http://hdl.handle.net/10986/34008.
34. Castellano & Dubovec, supra note 9, at 691.
35. Id. at 686.
36. Id. at 685–86.
37. It must be noted that for exposures that qualify for the regulatory retail portfolio or fit into the SME category of exposure, the existence of collateral is immaterial for the calculation of capital charges. Id. at 674 (noting that “even if banks would still take different kinds of collateral, they have no incentives to gather information and construct a reliable dataset concerning, for instance, the realization value of different movable assets”). For this reason, it is key to incentivize banks to gather sufficient data on collateral; see Id. at 690.
38. See Castellano, supra note 2; and Castellano & Dubovec, supra note 9.