The Future of Secured Credit in Canada – A Survey of Theory and Evidence

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I. ABSTRACT

Secured credit has become an increasingly important feature of the global financial system. The growing importance of secured credit can be traced back to Article 9 of the *Uniform Commercial Code*, having been adopted by most US states by the late 1960s, which overhauled the laws governing secured transactions to increase the availability and appeal of secured credit. Other jurisdictions, including those in Canada, have adopt similar legislation. The policy decision to facilitate the use of secured credit is based on lowering the cost of borrowing and increasing the availability of credit. However, the rationale for facilitating the use of credit is incomplete. In this article, we analyze the current theories and empirical evidence to reveal that, while we have sufficient evidence to confidently assert that secured credit results in lower interest rates for borrowers who provide collateral, we do not know where this reduction of interest rates comes from. More importantly, we do not know whether secured credit, on balance, generates new wealth. Instead, we have multiple plausible explanations ranging from increased creditor recoveries in the event of default to the prevention of defaults, a redistribution of wealth, and lower screening and monitoring costs. Secured credit presents difficult policy choices that would be far easier on which to take a position on with more

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empirical evidence on the source of interest rate reductions. Specifically, more empirical evidence is needed on the factors that drive market participants to employ secured credit and the effects that such employment has on third parties such as unsecured creditors. Without such empirical evidence, law and policy makers may be settling for choices that are not optimal.

II. I. INTRODUCTION

Secured credit has become an increasingly important feature of the global financial system.[1] The growing importance of secured credit can be traced back to Article 9 of the *Uniform Commercial Code*, having been adopted by most US states by the late 1960s, which overhauled the laws governing secured transactions to increase the availability and appeal of secured credit.[2] In the more than 50 years since Article 9 first came into effect, other jurisdictions have increasingly sought to replicate these effects by enacting similar legislation.[3]

Among the jurisdictions that sought to replicate Article 9, Canadian provinces and territories were the earliest to adopt similar legislation and have become one of the leaders in ongoing reform efforts.[4] While the earliest versions of the PPSA largely mirrored reforms developed in the United States, Canadian jurisdictions have since enacted reforms of their own that cemented Canada's status as one of the leaders in secured transactions law reform.[5] As a result, other jurisdictions, such as New

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1 Roderick J Wood, "Identifying Borrowed Sources in Secured Transactions Law Reform" (2019) 24:3 Unif L Rev 545 at 545.

2 Alan Schwartz, "Security Interests and Bankruptcy Priorities: A Review of Current Theories" (1981) 10:1 J Leg Stud 1 at 4-6.

3 Wood, *supra* note 1 at 548-549.

4 Canadian Conference on Personal Property Security Law, *Proposals for Changes to the Personal Property Security Acts*, 2017 CanLIIDocs 3526. Leading treatises on Canadian personal property security law include: Anthony Duggan, *The Ontario Personal Property Security Act: Commentary and Analysis*, Third Edition (Toronto: LexisNexis Canada, 2020); Clayton Bangsund, *Bangsund on the Personal Property Security Act: The CCPPSL Model* (Toronto: Thomson Reuters, 2021), Ronald C.C. Cuming et al., *Personal Property Security Law*, Third Edition (Toronto: Irwin Law, 2022), Anthony Duggan et al., *Secured Transactions in Personal Property: Cases, Text and Materials*, Eighth Edition (Toronto: Emond Montgomery, 2022).

5 Wood, *supra* note 1 at 549.

Zealand and Australia, have enacted personal property security legislation largely modeled after the Canadian PPSAs.[6]

By way of adopting legislation based on the PPSAs and Article 9, more and more jurisdictions have endorsed the underlying policy decision to facilitate the use of secured credit. For the most part, this policy decision is based on a traditional explanation of secured credit's value that relies on two core theories.[7] First, conventional wisdom suggests that taking a security interest reduces a lender's risk of not being paid because they can rely on the value of the collateral for payment in the event of default. As a result of this risk reduction, lenders are willing to extend lower interest rates to borrowers and it becomes an attractive arrangement for both parties.[8] Second, the traditional explanation holds that facilitating secured credit contributes to economic development by increasing the availability of credit.[9] Accordingly, the lower risk and lower interest rates make capital available to borrowers whose ventures are too risky to obtain unsecured debt for a reasonable or feasible interest rate.

Upon further examination, however, this explanation is only partial. Empirical evidence does, indeed, suggest that secured credit lowers interest rates, which provides some explanation for why borrowers are willing to pledge collateral.[10] Despite its accuracy in that respect, the conventional

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6 Anthony Duggan, "The Australian PPSA from a Canadian Perspective: Some Comparative Reflections" (2014) 40:1 Monash U L Rev 59 at 59-60.

7 See, for example: UNCITRAL, *UNCITRAL Legislative Guide on Secured Transactions* (New York: UN, 2010) at para 5; Homer Kripke, "Law and Economics: Measuring the Economic Efficiency of Commercial Law in a Vacuum of Fact " (1985) 133:5 U Pa L Rev 929; Jacob S Ziegel, "The Draft Ontario Personal Property Security Act" (1966) 44:1 Can B Rev 104 at 130.

8 Gerard McCormack, *Secured Credit Under English and American Law* (Cambridge: Cambridge University Press, 2004).

9 Howard Ruda, "Article 9 Works - How Come?" (1994) 28:1 Loy L A L Rev 309 at 310.

10 Secured credit's ability to reduce interest rates is well-established. See, for example, James Booth & Lena Booth, "Loan Collateral Decisions and Corporate Borrowing Costs" (2006) 38:1 J of Money, Credit & Banking 67, Alberto F. Pozzolo, "The Role of Guarantees in Bank Lending" (2004) Banca D'Italia Tema di Discussione No 528, Efraim Benmelech & Nittai Bergman, "Collateral Pricing" (2008) National Bureau of Economic Research Working Paper No 13874. Some studies have questioned this correlation, but those studies contain methodological issues and were unable to isolate secured credit's impact on interest rates. See, for example, Kose John *et al.*, "Credit Ratings, Collateral and Loan Characteristics: Implications for Yield" (2003) 76:3 J of Bus 371 and Allen N Berger & Gregory F Udell, "Collateral, Loan Quality and Bank

wisdom fails to capture the whole picture in two respects. First, the traditional explanation does not fully explain the myriad of reasons for why secured credit reduces interest rates. Further research has revealed that citing the liquidation value of a borrower's collateral as the source of interest rate reductions is an oversimplification that fails to account for other benefits associated with secured credit.[11] Without identifying and understanding these other benefits and the role they play in the decision to employ secured credit, it is difficult to determine how particular secured transactions laws will affect the availability and appeal of secured credit. Secondly, proponents of liberal secured transactions laws have not provided persuasive evidence that secured credit is socially beneficial.[12] Until there is sufficient evidence that secured credit has a net positive effect on society, critics of liberal secured transactions laws may legitimately question whether it is wise to facilitate the use of secured credit to the extent that Article 9 and the PPSAs do. Recognizing the need for a better understanding of secured credit, legal scholars have explored both topics extensively over the past several decades.[13]

We take the position that, despite the progress made by existing research, our understanding of secured credit still lacks the level of nuance needed to make optimal policy decisions. The rest of this paper is divided into four parts. The second part reviews the theoretical and empirical literature that seeks to explain why using collateral reduces interest rates. The third part reviews the theoretical and empirical studies that examine whether and why secured credit is socially beneficial. The fourth part is a case study that demonstrates the importance of further research by discussing how a deeper understanding of secured credit would enhance policy decisions related to the priority of employee wage claims in

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Risk" (1990) 25:1 J of Monetary Economics 21 [Berger & Udell, "Loan Quality"].

11 See Ronald J. Mann, "The Role of Secured Credit in Small-Business Lending" (1997) 86 Geo. L. J. 1 at 15-17 [Mann, "Small-Business Lending"]; Ronald J. Mann, "Explaining the Pattern of Secured Credit" (1997) 110 Harvard Law Review 625 at 640 [Mann, "Explaining the Pattern"]. In addition, the theory literature has identified several other ways that secured credit may affect lending decisions. See, *infra*, Section 2.1(b) to Section 2.1(e).

12 See, for example, Paul M Shupack, "Solving the Puzzle of Secured Transactions" (1989) 41:4 Rutgers L Rev 1067 at 1119-1124; David Gray Carlson, "Secured Lending as a Zero-Sum Game" (1998) 19:5 Cardozo L Rev 1635 at 1645 [Carlson, "Zero-Sum Game"].

13 See Norman Siebrasse, *A Review of Secured Lending Theory* (The World Bank, 1997).

bankruptcy. We conclude that, while our understanding of secured credit has been enhanced significantly over the last 30 years, further research in key areas is necessary to develop the kind of detailed and nuanced knowledge that would facilitate more informed policy decisions.

III. II. WHERE DOES THE REDUCTION OF INTEREST RATES COME FROM?

Given that reduced interest rates are understood to be the primary motivation for borrowers for offering collateral, secured credit will only be the more attractive option when a lender is willing to offer a lower interest rate in exchange for such collateral. Without a complete and nuanced understanding of why lenders offer lower interest rates for secured loans, it is difficult to accurately predict whether rules and standards that facilitate secured credit for market participants generate wealth for society as a whole. The issue is whether the reduction of interest rates achieved by secured transactions is, on balance, a reflection of new wealth being generated or simply existing wealth being redistributed. It is, therefore, important to identify all possible sources of the interest rate reduction associated with secured credit.

Proponents of secured credit sometimes provide an enticingly simple and intuitive explanation of the benefits that enable lenders to offer lower interest rates for secured loans.[14] They suggest that secured credit is attractive to lenders because they receive a valuable interest in the borrower's collateral that increases the likelihood of repayment. The risk of nonpayment in the event of default is lower because lenders can rely on the collateral value to recover any debt that remained unpaid at the time of default. There is, therefore, less of a need for lenders to compensate for the risk of nonpayment and they may correspondingly reduce the loan's interest rate.

However, such explanation only captures part of the story. The opportunity to recover the value of a borrower's collateral is the most obvious benefit for lenders, but theoretical studies have demonstrated that taking a security interest alters the lending relationship in other ways that could be beneficial for lenders. Secured credit alters a lender's transaction

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[14] See UNCITRAL, *supra* note 7 at para 5; Fleisig *et al.*, *Reforming Collateral Laws to Expand Access to Finance,* (Washington: The World Bank, 2006)

costs, enforcement options, and rights in relation to other creditors. Each of these effects has the potential to influence lending decisions and tip the scales in favour of secured credit.

This part reviews research that has examined the key benefits of secured credit. To begin, we review the different types of benefits proposed by theoretical studies. While there are several studies that point to the liquidation value of collateral as the key benefit of secured credit, others have noted that secured credit could be attractive for its effect on transaction costs and the risk of default. We then review empirical studies that helps us understand whether those theoretical benefits influence lending decisions in practice. Despite a series of methodological challenges that make it difficult to identify the benefits of secured credit with any precision, many studies have identified broad patterns underlying the use of secured credit.[15] Finally, we summarize the implications of these findings and identify further research that could improve our understanding of secured credit's appeal going forward.

B. *Theory*

Theoretical studies of secured credit have devoted significant attention to identifying the reasons for why borrowers and lenders use secured credit. While every explanation has accepted that borrowers will grant security interests to lower the cost of credit, many theoretical studies have attempted to identify and isolate the specific reasons that lenders will offer a lower interest rate in exchange for collateral.[16] These studies have advanced many explanations for the appeal of secured credit, but they can largely be categorized according to five key sources of wealth that may be attributed to secured credit: (1) increased repayment after a debtor defaults;[17] (2)

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15 See, *infra*, Section 2.2.

16 See, for example, Schwartz, *supra* note 2; George G Triantis, "Secured Debt under Conditions of Imperfect Information" (1992) 21:1 J Leg Stud 225; Robert E Scott, "The Truth about Secured Financing" (1997) 82:6 Cornell L Rev 1436 [Scott, "The Truth"]; F H Buckley, "The Bankruptcy Priority Puzzle" (1986) 72:8 Virginia L Rev 1393; Thomas H Jackson & Anthony T Kronman, "Secured Financing and Priorities among Creditors" (1979) 88:6 Yale LJ 1143.

17 Triantis, *supra* note 15; Kripke, *supra* note 7 at 949-950; James J White, "Efficiency Justifications for Personal Property Security" 37 Vand L Rev 473 at 481; Mann, "Explaining the Pattern" at 640; David Gray Carlson, "On the Efficiency of Secured Lending" (1994) 80:8 VA L Rev 2179 at 2191-2192 [Carlson, "Efficiency of Secured Lending"].

prevention of debtor defaults;[18] (3) additional information about prospective debtors;[19] (4) reduction of monitoring costs;[20] and (5) the redistribution of wealth from unsecured creditors.[21]

1. 1. Repayment after Default

One source of new wealth or value attributed to secured credit is that it enhances the lender's ability to force repayment in the event of a borrower's default.[22] It enhances a lender's ability to force repayment in two ways. One way is that the lender has priority over the collateral and maintains the value of its claim despite any future debt the borrower incurs. The other way is that the lender has the right to foreclose on the borrower's collateral and use those assets to recover the outstanding amount of their loan. The risk of nonpayment is primarily driven by the possibility of bankruptcy claim subordination or dilution and the loss of debtor assets. If the lender's claim has not been subordinated or diluted and the debtor has retained sufficient asset value, there is little risk of nonpayment.

The priority afforded to secured creditors in bankruptcy typically prevents subordination or dilution of the claim. Unlike with unsecured loans, a borrower could take on additional debt after the secured creditor's initial loan without jeopardizing or subordinating the secured creditor's bankruptcy claim.[23] The secured creditor will still have priority over the

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18 See Scott, "The Truth" *supra* note 15; Mann, "Explaining the Pattern" *supra* note 11 at 639-656; John Armour, "The Law and Economics Debate About Secured Lending: Lessons for European Lawmaking?" (2008) University of Cambridge Centre for Business Research Working Paper No 362 at 3-4.

19 See Shupack, *supra* note 12 at 1091; Buckley, *supra* note 15 at 1440; Vanessa Finch, "Security, Insolvency and Risk: Who Pays the Price?" (1999) 62:5 Mod L Rev 633 at 641.

20 See Jackson & Kronman, *supra* note 15 at 1157-1161; Randal C. Picker, "Security Interests, Misbehavior, and Common Pools" (1992) 59:2 UChi L Rev 645; Saul Levmore, "Monitors and Freeriders in Commercial and Corporate Settings" (1982)92:1 Yale LJ 49.

21 Lynn M LoPucki, "The Unsecured Creditor's Bargain" (1994) 80:8 VA L Rev 1887 at 1896-1899; Schwartz, *supra* note 2 at 30-31.

22 Triantis, *supra* note 15; Kripke, *supra* note 7 at 949-950; James J White, "Efficiency Justifications for Personal Property Security" 37 Vand L Rev 473 at 481; Mann, "Explaining the Pattern" at 640; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2191-2192.

23 Personal Property Security Act, RSO 1990, c P-10 at s 30.

assets that they have a security interest in.[24] An unsecured creditor, on the other hand, would see their claim diluted by subsequent unsecured debt and subordinated by subsequent secured debt.[25] As a result, security interests can protect the value of a creditor's claim after a debtor defaults.

A security interest encumbers the collateral and the secured creditor will, as a default rule, retain their rights over the asset if the debtor disposes of it without the creditor's consent.[26] Even when a debtor becomes insolvent, the secured creditor will have access to the valuable assets that they selected to guarantee a certain level of repayment. Unsecured creditors, on the other hand, have a claim to a pro rate share of the debtor's total assets.[27] When a debtor has become insolvent and/or filed for bankruptcy, the value of its total assets will likely have diminished and unsecured creditors are left to recover proportionately from a smaller pool of assets.[28] Therefore, secured credit greatly reduces the risk that a debtor in default will not have the assets to repay the lender, thereby lowering the borrower's cost of credit.

2. 2. Default Prevention

A second source of new wealth or value attributed to secured credit is that collateral lowers the risk of default because lenders may influence the behaviour of borrowers more effectively. Secured credit may lower the risk of default in three ways. First, secured credit makes default more costly because collateral is typically worth more to the borrower than the lender.[29] Second, the self-enforcing remedies available to secured lenders may discourage borrowers from engaging in risky behaviour that could lead to default.[30] Finally, the lower interest rates associated with secured credit may

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24 Triantis, *supra* note 15 at 249.

25 *Ibid* at 235-236.

26 Personal Property Security Act, RSO 1990, c P-10 at s 25(1)(a).

27 Bankruptcy and Insolvency Act, RSC 1985, c B-3, s 141.

28 Clas Bergstrom et al., "On the Design of Efficient Priority Rules for Secured Creditors: Empirical Evidence from A Change in Law" (2004) 18:3 Eur J L & Econ 273 at 283 (Table 2).

29 Mann, "Explaining the Pattern" *supra* note 11 at 646

30 Robert E Scott, "A Relational Theory of Secured Financing" (1986) 86 Colum L Rev 901 at 926-927 [Scott, "Relational Theory"]; Scott, "The Truth" *supra* note 15 at 1451-1452; Armour, *supra* note 17 at 3-4; Kripke, *supra* note 7 at 950; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2189-2190.

reduce the borrower's incentive to recover interest costs through riskier, but potentially more profitable, actions.[31] Together, risky behaviour that could increase the likelihood of default is disincentivized.[32]

Secured credit may reduce a debtor's incentive to misbehave by increasing the likely costs of a default in part because the collateral that debtors offer to creditors is often more valuable within the debtor's business than it is on the open market.[33] Creditors will look at an asset's market value to determine if it guarantees a sufficient level of repayment when making lending decisions. It is cheaper for the debtor to repay the creditor than it is to default and risk the loss of collateral that is more valuable to the debtor's business.[34] The lender's agency costs are reduced by disincentivizing risky debtor behaviour that would increase the likelihood of default.[35]

In addition, several theoretical studies have made the claim that the enforcement measures available to secured creditors can deter borrowers from engaging in risky activities that increase the risk of default.[36] Unlike unsecured lenders, secured lenders can enforce their rights under the loan agreement without applying to a court. In the event of a default by the borrower, secured lenders can take possession of a borrower's collateral, sell it, and use the proceeds to recover the outstanding portion of the loan.[37] Kripke and Carlson note that this is an important feature of secured credit because lenders can only deter risky behaviour on the part of the borrower if they have access to remedies that can reliably punish such behaviour.[38]

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31 Buckley, *supra* note 15 at 1430-1432.

32 Mann, "Explaining the Pattern of Secured Credit" *supra* note 11 at 646; Triantis, "Imperfect Information", *supra* note 15 at 246.

33 See Oliver E Williamson, "Credible Commitments: Using Hostages to Support Exchanges" (1983) 73 The American Economic Review 519 at 522-527 (explaining how various "specific" assets have more value to their current user than the market).

34 Mann, "Explaining the Pattern of Secured Credit" *supra* note 11 at 646; Triantis, "Imperfect Information", *supra* note 15 at 246.

35 *Ibid*.

36 Scott, "The Truth" *supra* note 15 at 1451-1452; Scott, "Relational Theory" *supra* note 29 at 926-927; Mann, "Explaining the Pattern" *supra* note 11 at 655; Armour, *supra* note 17 at 3-4; Kripke, *supra* note 7 at 950; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2189-2190.

37 *Personal Property Security Act*, RSO 1990, c P-10 at ss 62-63.

38 Kripke, *supra* note 7 at 950; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2189-2190.

Mann argues that borrowers will be more wary of engaging in any risky behaviour when they pledge collateral, whether it is permissible under the loan agreement or not, because of the lender's ability to seize their assets and terminate the loan in the event of any default.[39] By encouraging borrowers to exercise additional caution and avoid behaviour that lenders would not approve of, secured credit can help remedy the agency issues that are inherent to the relationship between borrowers and lenders.

Beyond creating a broad incentive to act more cautiously, the enforcement features of secured credit are particularly effective at preventing specific types of risky behaviour.[40] For example, security interests can prevent debtors from replacing existing assets with risker ones in pursuit of additional profits.[41] Typically referred to as asset substitution, such a strategy could increase the risk of default when it leads to a change in the borrower's business. Secured credit can reduce the risk of asset substitution in two ways. First, when a borrower sells collateral outside the ordinary course of business, the collateral will typically remain subject to any perfected security interest unless the secured lender authorized the sale.[42] A secured lender's continued rights in the collateral will make it more difficult for borrowers to complete these types of sales.[43] Secondly, in situations where a borrower is able to sell collateral free from any perfected security interest, the secured lender will retain a security interest in the proceeds of that transaction as a default rule.[44] Due to the enforcement rights discussed above, secured lenders can rely on their security interest in proceeds to prevent borrowers from using asset sales to fund risky behaviour. Considering these factors, security interests significantly discourage borrowers from pursuing asset substitution strategies that could increase the risk of default.

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39 Mann, "Explaining the Pattern" *supra* note 11 at 655.

40 Schwartz, *supra* note 2 at 11; Armour, *supra* note 17 at 3-4; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2191; Mann, "Small-Business Lending", *supra* note 11 at 25; Hideki Kanda & Saul Levmore, "Explaining Creditor Priorities" (1994) 80:8 Va L Rev 2103 at 2113-2115.

41 Schwartz, *supra* note 2 at 11; Armour, *supra* note 17 at 3-4; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2191.

42 *Personal Property Security Act*, RSO 1990, c P-10 at s 25(1); UCC § 9-315 (2010).

43 Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2191.

44 *Personal Property Security Act*, RSO 1990, c P-10 at s 25(1); UCC § 9-315 (2010).

A second example of a potentially risky activity that secured credit may discourage is the accumulation of excessive levels of debt.[45] While taking on additional debt does not necessarily increase the risk of default, excessive debt levels reduce the equity stake in the business and the provision of capital for the pursuit of viable new projects.[46] Secured credit may prevent borrowers from accumulating excessive debt in two ways. One is that the default priority rules reduce the repayment prospects of any new loans that would be subordinate to the first security interest.[47] The other is that the registration requirements provide notice of a secured lender's priority rights, which is likely to discourage subsequent lenders from providing loans to the borrower.[48] As a result, security interests would reduce the risk of borrowers accumulating debt to levels that would increase the risk of default.

Secured credit may also allow creditors to avoid the adverse incentive problems created by an increase in the cost of credit.[49] Buckley has argued that every increase in the cost of credit creates a greater incentive for debtors to compensate for those costs by engaging in risky behaviour in the hope that would generate additional profits.[50] To the extent that secured credit allows creditors to offer a lower interest rate than would otherwise be possible, it allows them to lower agency costs by mitigating a debtor's need to compensate for high interest costs with riskier actions. When a lender is facing a choice between offering a secured loan at a lower interest rate or an unsecured loan at a higher interest rate, this theory helps explain why a lender would opt for the former.

3. 3. Information

A third source of gain that theoretical studies point to is secured credit's ability to mitigate information asymmetries that can emerge during the lending process. When a lender evaluates a borrower's creditworthiness,

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45 Mann, "Small-Business Lending", *supra* note 41 at 25; Kanda & Levmore, *supra* note 41 at 2113-2115.

46 George G. Triantis, "Financial Slack Policy and the Laws of Secured Transactions" (2000) 29:1 - Part 1 J Legal Stud 35 at 39.

47 *Personal Property Security Act*, RSO 1990, c P-10 at s 30(1).

48 Mann, "Explaining the Pattern" *supra* note 11 at 641, *Personal Property Security Act*, RSO 1990, c P-10 at s 41(1).

49 Buckley, *supra* note 15 at 1430-1432.

50 *Ibid.*

they are unlikely to have perfect information about the borrower's financial situation or its ability to repay the loan.[51] Borrowers, on the other hand, likely have the best information about the likelihood of repayment.[52] This makes it difficult for lenders to identify the optimal terms for a given loan and they incur costs to collect the information they need.

Two different explanations have been put forward to explain how secured credit can help lenders reduce the costs of asymmetrical information. First, several studies have argued that pledging collateral could act as a signal of the borrower's ability to repay the loan.[53] Secondly, some studies claim that using secured credit can reduce the need for lenders to conduct a thorough and, therefore, costly, evaluation of the value of their potential claim in bankruptcy.[54]

Some early studies of secured credit suggested that secured credit reduces investigation costs because security interests act as a signal of a business venture's quality or a debtor's prospects of success.[55] The signaling theory of secured credit is based on the premise that security is more costly for risky borrowers and debtors with strong chances of business success are more willing to provide collateral.[56] The most significant risk that borrowers face when they grant a security interest is the potential seizure of their collateral. Faced with a greater likelihood of asset seizure, the signaling theory suggests that borrowers who believe they have a higher risk of default will avoid granting security. As a result, only borrowers who are confident that they will be able to repay the loan will grant security interests. This would theoretically allow lenders to consider a borrower's willingness to grant security as a signal that they are more likely to repay the loan.

However, further scrutiny of the signaling theory reveals three key issues. For one, it is not clear that secured credit is more costly for borrowers who ultimately default on their loan. Borrowers who default will likely have

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51 Schwartz, *supra* note 2 at 14.

52 Triantis, "Imperfect Information" *supra* note 15 at 232.

53 Schwartz, *supra* note 2 at 14-16; Triantis, "Imperfect Information" *supra* note 15 at 253-254.

54 Finch, *supra* note 18 at 641; Shupack, *supra* note 12 at 1090-1091; Buckley, *supra* note 15 at 1424-1425.

55 Schwartz, *supra* note 2 at 14-16; Triantis, "Imperfect Information" *supra* note 15 at 253-254.

56 Triantis, "Imperfect Information" *supra* note 15 at 253-254.

to pay back their loans or liquidate their assets whether the loan is secured or not. Borrowers who grant security interests and repay their loan promptly, on the other hand, face unnecessary constraints on their actions that would not be present with an unsecured loan.[57] As a result, a borrower's willingness to grant collateral could potentially signal a greater risk of default. Secondly, debtors with riskier projects can likely mimic the signal and deceive creditors by granting security.[58] Debtors with a greater appetite for risk will likely overuse security and grant security for low-quality projects, while risk-averse debtors will undervalue their odds of success and refuse to grant security for promising projects. Therefore, even if borrowers grant security interests to signal a high likelihood of success, secured credit's signaling capability is dependent upon the debtor's risk preferences. Finally, Kripke is critical of the signaling theory because it is irreconcilable with the negative connotations associated with secured credit.[59] In the business world, the prevailing wisdom and general consensus is that only riskier or lower-quality firms grant security interests. Given such an attitude towards secured credit, it is unlikely that many creditors would view a debtor's willingness to grant security as a signal that the debtor was likely to succeed.

Despite the theory's limitations, the idea that signaling will sometimes play a role in the decision to use secured credit has credibility. Triantis concedes that a debtor's willingness to grant security will be of little value as a signal in many cases, but argues that it may provide an important signal of quality when a creditor has little to no information about a debtor's prospects.[60] For some potential borrowers, like a start-up in an emerging industry, lenders will lack information about their prospects for success. Faced with the added constraints that secured credit places on managerial discretion, borrowers who are confident in their existing strategy and assets may have a greater incentive to pledge collateral.[61] Therefore, granting a security interest may be an effective signal of a borrower's quality in certain situations.

In addition to signaling, another source of new wealth generated by secured credit is the reduction of investigation or screening costs as lenders

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57 Armour, *supra* note 17 at 6.

58 Schwartz, *supra* note 2 at 17-18.

59 Kripke, *supra* note 7 at 969-970.

60 Triantis, "Imperfect Information" *supra* note 15 at 256-257.

61 *Ibid* at 257.

can consider collateral values when assessing a borrower's creditworthiness.[62] Lenders will evaluate many factors when they make loan decisions, including the likelihood of default and the likelihood of repayment in the event of default. Where a borrower pledges collateral that would allow the lender to recover in the event of default, lenders can limit their investigation of repayment prospects to an appraisal of the borrower's collateral.[63] Such an investigation may be less costly than the broader evaluation required to assess the bankruptcy value for unsecured loans.

It is worth noting, however, that the most persuasive arguments in favour of the screening costs theory recognize that secured credit will not always lower screening costs. Shupack, for example, notes that the screening costs theory is somewhat unsatisfying because it is situation-dependent.[64] Mann goes one step further to highlight how borrower characteristics like listing status and financial strength can alter the relative screening costs that lenders incur for secured and unsecured loans.[65] For example, the mandatory filings of a publicly traded company will provide extensive financial information that unsecured lenders can use to minimize screening costs. Secured lenders, on the other hand, would still need to incur the costs associated with collateral appraisal in that situation.[66] Ultimately, both secured and unsecured lenders incur screening costs that vary depending on loan and borrower characteristics. As a result, it seems likely that reduced screening costs required for a secured loan will influence the lender's decision to require collateral in some but not all cases.

4. 4. Monitoring

A fourth group of studies suggests that secured credit lowers interest rates because it can reduce the costs that a lender must incur to detect overly risky behaviour by borrowers.[67] The central premise of this theory is that lenders will undertake some form of monitoring to detect any borrower

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62 Shupack, *supra* note 12 at 1091; Buckley, *supra* note 15 at 1440.

63 *Ibid.*

64 Shupack, *supra* note 12 at 1092.

65 Mann, "Explaining the Pattern", *supra* note 11 at 671.

66 *Ibid.*

67 Buckley, *supra* note 15; Schwartz, *supra* note 2; Jackson & Kronman, *supra* note 15; Levmore, supra note 19; Picker, *supra* note 19; Mann, "Explaining the Pattern", *supra* note 11.

behaviour that could jeopardize the repayment of a loan.[68] For unsecured lenders, this involves monitoring the performance of the borrower's entire business because they have a pro rata claim against an unspecified portion of the borrower's total assets. Secured lenders, on the other hand, can theoretically recover money owed to them as long as the specified collateral holds its value. Secured credit reduces monitoring costs because there is a narrower range of borrower behaviour that could jeopardize the repayment of a secured loan.[69]

Assuming that the liquidation value of a borrower's collateral is sufficient to ensure repayment, secured lenders would only need to detect borrower behaviour that would impact the value and availability of the collateral.[70] Jackson and Kronman note that this type of monitoring can be particularly straightforward when the collateral is important to the borrower's business and the two parties share an interest in maintaining it.[71] Unsecured lenders, on the other hand, must attempt to detect any borrower behaviour that could lead to default or reduce the value of the borrower's total assets.[72] This forces them to monitor a wider range of behaviour and pay greater attention to the condition of the borrower's business as a whole.[73] Monitoring may, therefore, be more costly for unsecured lenders and a reduction in monitoring costs could contribute to the lower interest rates associated with secured credit.

5. 5. Redistribution

The final theory explains that secured credit reduces interest rates because it allows secured lenders to capture the value of an unsecured creditor's potential bankruptcy claim.[74] In other words, unlike the four sources of wealth described above, the claim is that secured credit redistributes existing wealth as opposed to being a source of new wealth.

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68 Jackson & Kronman, supra note 15 at 1150-1151; Levmore, *supra* note 19 at 50; Picker, *supra* note 19 at 653-654.

69 Buckley, *supra* note 15 at 1440; Schwartz, supra note 2 at 10.

70 Schwartz, *supra* note 2 at 10; Jackson & Kronman, supra note 15 at 1153-1154;

71 Jackson & Kronman, *supra* note 15 at 1153.

72 Schwartz, *supra* note 2 at 10.

73 Mann, "Explaining the Pattern" at 650.

74 Lucian Arye Bebchuk & Jesse M Fried, "The Uneasy Case for the Priority of Secured Claims in Bankruptcy" (1996) 105:4 Yale LJ 1279 at 1305-1306.

When a borrower has incurred prior unsecured debt from lenders who cannot practically adjust their interest rates, it can redistribute the value of the unsecured creditors' bankruptcy claims by granting subsequent security interests. The secured creditor receives a more valuable bankruptcy claim, but the unsecured creditors receive no compensation for the reduction of their bankruptcy claims.[75] Several studies, including those that ultimately conclude the law should facilitate secured credit, recognize that this transfer of existing wealth may be an incidental effect of secured loans.[76]

LoPucki takes the redistribution claim one step further by presenting an analysis that concludes secured credit is an exploitative practice used by borrowers and secured creditors to capture the wealth of unsecured creditors.[77] According to LoPucki, secured credit creates an opportunity for debtors to intentionally externalize tort liability by issuing enough secured debt to fully encumber their assets. He argues that tort claimants, like all involuntary creditors, have no opportunity to price the risks of secured debt into their claim.[78] As a result, debtors facing outstanding claims from tort claimants have an economic incentive to "expropriate" or "sell" the value of those claims to secured creditors by fully encumbering their assets.[79] In doing so, the debtor can minimize firm and shareholder exposure to tort liability and leave tort claimants to bear the costs of security interests in the event of insolvency. LoPucki also draws on his bankruptcy law experiences to argue that debtors and secured creditors can use security interests to intentionally expropriate the value of voluntary unsecured creditors' claims, as well. In his view, certain complexities of the secured credit laws leave many unsecured creditors uninformed about a secured creditor's rights to the debtor's assets. For example, a seller would be unable to recover goods that a buyer did not pay for if the buyer's lender had a security interest in after-acquired property that applied to those goods.[80] Given the general principle that sellers can recover property that buyers do not pay for, this

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75 Bebchuk & Fried, *supra* note 73 at 1305-1306; David W. Leebron, "Limited Liability, Tort Victims, and Creditors" (1991) 91:6 Colum L Rev 1565 at 1639-1640.

76 Scott, "The Truth" *supra* note 15 at 1452; at 1119-1124; Shupack, *supra* note 12 at 1119-1124; Carlson, "Zero-Sum Game", *supra* note 12 at 1645.

77 LoPucki, *supra* note 20.

78 *Ibid* at 1896-1899.

79 *Ibid* at 1898-1899.

80 *Personal Property Security Act*, RSO 1990, c P-10 at s 12.

comes as a surprise to many and creates an opportunity for debtors to transfer the value of a supplier's bankruptcy claims to secured creditors.[81]

C. *Empirical Evidence*

By comparing data about the use of secured credit in practice to the theoretical predictions described above, empirical studies have helped identify which theories most accurately identified the sources of reduced interest rates for secured loans. To try and understand why secured credit leads to lower interest rates in certain situations, many empirical studies of secured credit seek to identify the factors associated with an increased incidence of secured credit.[82] While these studies tested how a wide range of variables affected the incidence of secured credit, those variables can largely be broken down into four categories: (a) the risk of default;[83] (b) the nature of the borrower's unsecured liabilities;[84] (c) the availability of credit information;[85] and (d) the liquidation value of collateral.[86] In this section, we review the findings of these empirical studies and analyze how they contribute to our understanding of why secured credit is associated with lower interest rates.

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81 LoPucki, *supra* note 20 at 1918-1919.

82 See, for example, Wim Voordeckers & Tensie Steijvers, "Business collateral and personal commitments in SME lending" (2006) 30 Journal of Banking and Finance 3067; John Leeth & Jonathan Scott, "The Incidence of Secured Debt: Evidence from the Small Business Community" (1989) 24:3 Journal of Financial and Quantitative Analysis 379; Chen, Sheng-Syan, Gillian H. H. Yeo & Kim Wai Ho, "Further Evidence on the Determinants of Secured Versus Unsecured Loans" (1998) 25 J of Bus. Fin. & Accounting 371; Yair Listokin, "Is Secured Debt Used to Redistribute Value from Tort Claimants in Bankruptcy? An Empirical Analysis" (2008) 57:4 Duke Law Journal 1037; Benmelech & Bergman, *supra* note 10; Pozzolo, *supra* note 10; Gabriel Jimenez *et al.*, "Determinants of Collateral" (2006) 30 Journal of Financial Economics 255.

83 Voordeckers & Steijvers, *supra* note 81 at 3070; Leeth & Scott, *supra* note 81 at 387; Chen *et al.*, *supra* note 81 at 375-376; Jimenez *et al.*, *supra* note 81 at 258; Pozzolo, *supra* note 10 at 17; Berger & Udell, "Loan Quality" *supra* note 10 at 27; Allen Berger & Gregory Udell, "Relationship Lending and Lines of Credit in Small Firm Finance" (1995) 68:3 The Journal of Business 351 at 358-360.

84 See Listokin, *supra* note 81; Voordeckers & Steijvers, *supra* note 81.

85 See Voordeckers & Steijvers, *supra* note 81 at 3081; Berger & Udell, "Relationship Lending", *supra* note 82; Jimenez *et al.*, *supra* note 81; Leeth & Scott, *supra* note 81.

86 See Listokin, *supra* note 81; Benmelech & Bergman, *supra* note 10; Mann, "Explaining the Pattern", *supra* note 11 at 640; Mann, "Small-Business Lending" *supra* note 11 at 15-17.

6. 1. Risk of Default

The relationship between default risk and secured credit has emerged as one of the most popular topics in empirical studies of secured credit. Recall that the repayment and risk reduction theories predict secured credit should be more prevalent when there is a greater risk of default.[87] If forcing repayment in the event of default and reducing the incentive for behaviour that could result in a default are key benefits of secured credit, then collateral should be particularly appealing when there is a greater risk of default. The signaling theory, on the other hand, would predict that a borrower's risk of default is negatively correlated with the incidence of secured credit.[88] If borrowers use secured credit to signal their ability to repay, then borrowers with a low risk of default would be more likely to pledge collateral. To test these theories, empirical studies have explored whether borrower risk, loan size and loan maturity increase the incidence of secured credit as these three factors are likely to increase the risk of default.

The variable that has received the most attention is the risk of default created by a borrower's poor performance or financial struggles. However, borrower risk is often the product of a range of factors and empirical studies have yet to settle on a single measure that accurately identifies that risk. Instead, they have relied on a variety of proxy variables to try and capture borrower risk. Several studies have relied on basic firm characteristics like size, ownership structure, and age.[89] Others have relied on financial information commonly associated with credit risk analysis like leverage, profitability or financial ratios.[90] A third measure that some studies have used was the risk premium on the loan.[91] Finally, some studies have had access to credit ratings and default records that they could use to capture a borrower's risk of default.[92] Using these proxy measures to assess borrower

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87 Leeth & Scott, *supra* note 81 at 383; Berger & Udell, "Loan Quality" *supra* note 10 at 22-24; Benmelech & Bergman, *supra* note 10 at 1.

88 Berger & Udell, "Loan Quality", *supra* note 10 at 25-26; Schwartz, *supra* note 2 at 15.

89 Voordeckers & Steijvers, *supra* note 81 at 3070; Leeth & Scott, *supra* note 81 at 387; Chen *et al.*, *supra* note 81 at 375-376.

90 Berger & Udell, "Relationship Lending" *supra* note 82 at 358-360; Chen *et al.*, *supra* note 81 at 375.

91 Berger & Udell, "Loan Quality" *supra* note 10 at 27; Berger & Udell, "Relationship Lending" *supra* note 82 at 358-360.

92 Jimenez *et al.*, *supra* note 81 at 258; Pozzolo, *supra* note 10 at 17.

risk, the vast majority of studies have found that a borrower's risk of default is positively correlated with the incidence of secured credit.[93]

There is, however, one study that appears to have found an exception to the positive correlation between borrower risk and the incidence of secured credit.[94] Jimenez *et al.*'s study of the Bank of Spain's Credit Register produced the only empirical evidence we are aware of that supports the signaling theory when they found a negative correlation between risk and secured credit among borrowers with little credit history.[95] Though these findings appear to be at odds with other evidence, they may be the product of a dataset that offers a unique opportunity to test this subset of borrowers. The Bank of Spain's Credit Register contains a borrower's entire credit history, including, perhaps most importantly, its default record.[96] As a result, Jimenez *et al.* were able to identify borrowers who had recently entered the credit markets and determined how they fared from that point forward. Taking advantage of this dataset, they produced novel findings that present the most plausible exception to the theory that riskier borrowers use secured credit.

Setting borrower risk aside, several studies have also explored whether loan characteristics that increase the risk of default can increase the incidence of secured credit.[97] The two characteristics that have received the

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93 Voordeckers & Steijvers, *supra* note 81 at 3077, Jimenez *et al.*, *supra* note 81 at 266; Leeth & Scott, *supra* note 81 at 389; Chen *et al.*, *supra* note 81 at 381; Berger & Udell, "Loan Quality" *supra* note 10 at 31-33; Berger & Udell, "Relationship Lending" *supra* note 82 at 358-360.

94 Two other studies appear to contradict the positive correlation between borrower risk and the incidence of secured credit, but their results may not be reliable. Pozzolo, *supra* note 10, acknowledged the unreliability of his borrower risk measure and excluded personal guarantees when calculating the incidence of secured credit. The exclusion of personal guarantees misrepresented the amount of debt that was secured because riskier borrowers tended to substitute guarantees for business collateral. Ameziane M Lasfer, "Debt Structure, Agency Costs and Firm's Size: An Empirical Investigation" City University Business School Working Paper, calculated the incidence of secured credit by looking at the proportion of outstanding debt that was secured and earnings per share was the study's most reliable measure of risk. Neither variable was a precise or reliable measure. Earnings per share is partly a function of shares outstanding and the proportion of debt secured would be skewed by differences in the value of each loan.

95 Jimenez *et al.*, *supra* note 81 at 270.

96 *Ibid* at 258.

97 Voordeckers & Steijvers, *supra* note 81; Leeth & Scott, *supra* note 81; Pozzolo, *supra* note 10; Mann, "Explaining the Pattern" *supra* note 11; Boot *et al.*, "Secured Lending

most attention are loan size and loan maturity. All other things being equal, larger loans and longer loans present a greater risk of default.[98] As predicted by the default prevention and repayment theories, several studies have found that loan size and loan maturity are positively correlated with the incidence of secured credit.[99] In each of these studies, the authors isolated the effects of differing loan terms by controlling for borrower characteristics like size, age and financial stability.

Boot *et al.* did conduct a study that contradicted the findings that loan size and loan maturity are positively correlated with secured credit.[100] However, this empirical study failed to control for borrower characteristics. Using a dataset that did not include any borrower information, they found that larger and longer loans were less likely to be secured.[101] Without controlling for borrower characteristics, this was the most likely result because lenders typically issue large, long-term loans to the largest, most successful and least risky borrowers.[102] As a result, the studies that controlled for borrower characteristics, and found that larger and longer-term loans were more likely to be secured, appear to be more reliable.

Overall, empirical studies have generally found that there is a positive correlation between the risk of default and the incidence of secured credit. In many ways, this correlation between risk and secured credit appears to be one of the more reliable findings in the secured credit literature. Aside from a handful of studies whose methods seem to explain their contradictory findings, there is almost no evidence that contradicts the positive correlation between default risk and secured credit. In studies that used a wide range of methods and proxy measures, the results have consistently shown that risky loans are secured more frequently. Only Jimenez *et al.* have been able to identify a plausible exception to this rule, and it is a relatively narrow one where certain high-quality borrowers pledge

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and Default Risk: Equilibrium Analysis, Policy Implications and Empirical Results" (1991) 101:406 The Economic Journal (London) 458.

98 Mann, "Explaining the Pattern" *supra* note 11 at 676; Leeth & Scott, *supra* note 81 at 385.

99 Voordeckers & Steijvers, *supra* note 81 at 3081; Leeth & Scott, *supra* note 81 at 389; Pozzolo, *supra* note 10 at 21.

100 Boot *et al.*, *supra* note 96.

101 *Ibid* at 470.

102 See Berger & Udell, "Loan Quality" *supra* note 10 at 32.

collateral because lenders cannot evaluate their creditworthiness. As a result, the empirical evidence offers strong support for the repayment and default prevention theories that predict a positive correlation between default risk and the incidence of secured credit. The signaling theory, on the other hand, appears not to be supported by most empirical studies and may only apply to borrowers whose creditworthiness is particularly difficult to evaluate.

7. 2. Unsecured Liabilities

Recall that the redistribution theory's central premise is that the primary benefit of secured credit derives from the exploitation of unsecured creditors.[103] If the redistribution theory has predictive accuracy, the nature of a borrower's unsecured debt load would have an effect on the incidence of secured credit. While the features of a borrower's unsecured debt have not yet received much attention in empirical studies of secured credit, two studies have considered the issue. In the first, Listokin explored how outstanding tort liabilities impact the incidence of secured credit by looking at the borrowing habits of firms in industries facing significant tort liability.[104] In the second, Voordeckers and Steijvers explored the relationship between a firm's access to trade credit and the incidence of secured credit.[105]

Listokin's study of borrowing patterns in companies facing tort liabilities does not provide support for the redistribution theory. According to the redistribution theory, companies facing significant tort claims would use secured credit to transfer wealth away from tort creditors in exchange for lower interest rates from secured creditors.[106] Despite the opportunity to subordinate tort liabilities and receive loans at lower interest rates, firms facing significant tort liabilities held less secured debt than the control group and did not increase their reliance on secured debt as tort liabilities increased.[107] However, Listokin did not include established measures of borrower risk like leverage, volatility or firm age and readily admitted that a

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103 Bebchuk & Fried, supra note 73 at 1305-1306; Leebron, *supra* note 74 at 1639-1640; LoPucki, *supra* note 20 at 1896-1899.

104 Listokin, *supra* note 81.

105 Voordeckers & Steijvers, *supra* note 81.

106 LoPucki, *supra* note 20 at 1896-1899.

107 Listokin, *supra* note 81 at 1064, 1069, 1072-73.

high likelihood of restructuring among large, high-tort firms could detract from the benefits of secured credit.[108] One or more of these factors could explain the lower proportion of secured credit in the sample of firms. While Listokin's research raises questions about the empirical accuracy of the redistribution theory, it does not disprove it entirely.

Also, as part of their broader study of the determinants of secured credit, Voordeckers and Steijvers analyzed whether a borrower's access to trade credit affected the incidence of secured credit.[109] While their study intended primarily to test trade credit's ability to signal a borrower's financial strength, it also tested how the presence of non-adjusting creditors affects the use of secured credit. Pursuant to the redistribution theory, the presence of trade creditors would increase the incidence of secured credit because borrowers can redistribute their bankruptcy value to secured creditors and receive a lower interest rate.[110] However, like in Listokin's study of tort liabilities, Voordeckers and Steijvers' findings did not provide support for the redistribution theory because the presence of trade credit was negatively correlated with the incidence of secured credit.[111]

Despite analyzing conditions that seemingly create the right incentives to test the redistribution theory, neither one of these two studies found any evidence to support it. By analyzing the effects of tort claimants and trade creditors on the use of secured credit, these studies provided an opportunity to test whether borrowers exploit non-adjusting creditors by "selling" their bankruptcy value to secured creditors for a lower interest rate. The findings did not provide support for it by revealing a negative correlation between the presence of non-adjusting creditors and the incidence of secured credit. These studies do not definitively disprove the validity of the redistribution theory entirely, of course, as there were methodological challenges that may have skewed the results. Listokin's results may have been skewed by lenders' fear of a restructuring. Voordeckers and Steijvers' use of trade credit as a proxy may not perfectly capture the amount of debt held by non-adjusting trade creditors. Ultimately, however, the redistribution theory lacks empirical support and existing studies cast doubt on its predictive accuracy.

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108 *Ibid* at 1077-1078.

109 Voordeckers & Steijvers, *supra* note 81 at 3071.

110 LoPucki, *supra* note 20 at 1896-1898.

111 Voordeckers & Steijvers, *supra* note 81 at 3077.

8. 3. Availability of Credit Information

Recall that the screening cost theory claims that secured credit can mitigate the issue of asymmetrical information between borrowers and lenders by reducing the cost of evaluating potential borrowers.[112] However, this cost reduction will not occur in every case because the relative costs of screening borrowers vary according to the availability of credit information.[113] When information is lacking, unsecured lenders must investigate the borrower's ability to repay and their screening costs increase. Therefore, the screening cost theory would predict that the availability of credit information is negatively correlated with the incidence of secured credit.

Given that lenders use a broad range of information to evaluate creditworthiness, there are multiple variables and data points that could measure the availability of credit information.[114] For example, the extent and nature of a borrower's credit history or the reliability of its financial statements would both influence a lender's need for additional credit information.[115] However, that type of information is not always easily accessible to researchers.[116] As a result, empirical studies have largely used two proxy variables that can measure the availability of credit information. First, several studies have examined how a borrower's age affects the incidence of secured credit. These studies should indirectly test the information theory because borrowers with a longer credit history would likely be able to provide more reliable information to lenders.[117] Secondly, several studies examined the length of borrower-lender relationships because lenders likely have access to more reliable information about the creditworthiness of borrowers that they have dealt with over a long period of time.[118]

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112 Buckley, *supra* note 15 at 1440.

113 Mann, "Explaining the Pattern", *supra* note 11 at 671; Shupack, *supra* note 12 at 1092.

114 Hirofumi Uchida, "What Do Banks Evaluate When They Screen Borrowers? Soft Information, Hard Information and Collateral" (2011) 40 The Journal of Financial Services Research 29 at 30-31.

115 Jimenez *et al.*, *supra* note 81 at 258; Uchida, *supra* note 113 at 31.

116 *Ibid.*

117 Jimenez *et al.*, *supra* note 81 at 258; Leeth & Scott, *supra* note 81 at 387; Pozzolo, *supra* note 10 at 21.

118 Berger & Udell, "Relationship Lending" *supra* note 82 at 362; Jimenez *et al.*, *supra* note 81 at 270; Voordeckers & Steijvers, *supra* note 81 at 3080; Pozzolo, *supra* note 10 at 21.

Two studies in the United States suggest that younger borrowers are more likely to use secured credit.[119] However, Voordeckers and Steijvers found the opposite when they analyzed the credit files of a large Belgian bank.[120] The two American studies analyzed data collected in surveys of small and medium-sized business, and they both found a statistically and economically significant negative correlation between age and secured credit.[121] Voordeckers and Steijvers, on the other hand, found that older borrowers were more likely to use secured credit.[122] None of these studies used methods that would obviously skew the correlation between age and secured credit, and it is difficult to assess precisely why they produced different results. It is possible that studying the lending patterns of a single bank skewed Voordeckers and Steijvers' results by reflecting one bank's abnormal lending patterns, but there is no evidence that was the case. Without a reliable explanation for Voordeckers and Steijvers' results, the studies analyzing whether a borrower's age affected the incidence of secured credit do not help us understand whether secured credit helps resolve information asymmetries.

Unfortunately, none of the above three studies set out to test the theory that secured credit can resolve information asymmetries. Without additional controls designed to isolate the effects of limited information, it is difficult to draw reliable conclusions from the correlation between a borrower's age and the incidence of secured credit. This correlation may account for other characteristics associated with younger borrowers, like a greater risk of default and business failure.[123] Given these methodological issues, it is not surprising that studies analyzing the correlation between age

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119 Leeth & Scott, *supra* note 81 at 389; Berger & Udell, "Relationship Lending" *supra* note 82 at 373.

120 Pozzolo, *supra* note 10, also found that older borrowers were more likely to use secured credit. However, Pozzolo's results appear to be the product of separating guarantees from business collateral and calculating the incidence of each type of security independently. This approach likely accounts for the positive correlation between age and business collateral because the study shows that younger borrowers are significantly more likely to secure their debt with personal guarantees than business assets.

121 Leeth & Scott, *supra* note 81 at 389; Berger & Udell, "Relationship Lending" *supra* note 82 at 373.

122 Voordeckers & Steijvers, *supra* note 81 at 3081.

123 Leeth & Scott, *supra* note 81 at 387.

and secured credit have not produced any definitive conclusions about the predictive accuracy of the information theory.

The second proxy measure used to test the information theory is the length of the relationship between the borrower and the lender.[124] Though there may be other factors associated with relationship length that affect the incidence of secured credit, it appears to be a more reliable test of the information theory than the borrower's age. The availability of information is likely to be the greatest advantage of a longer relationship between the lender and the borrower.[125] As a result, several studies have explored how relationship length affects the incidence of secured credit.[126] For the most part, these studies do suggest that secured credit is less prevalent when lenders have sufficient information about the borrower's creditworthiness.[127]

Berger and Udell's study, which was specifically designed to test how relationships affect loan decisions, provided particularly strong evidence of a negative correlation between relationship length and secured credit.[128] Using data collected in the National Survey of Small Business Financing, they focused solely on lines of credit because they involve a continuing commitment to the borrower and relationship effects were more likely to impact the terms than with a one-off loan.[129] Controlling for borrower characteristics, they found that borrowers with longer relationships paid lower interest rates and were less likely to pledge collateral.[130]

Two other studies demonstrated a negative correlation between relationship length and secured credit, but their findings were less convincing. In the first, Jimenez et al. found a significant negative correlation between relationship length and the incidence of secured credit

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124 Berger & Udell, "Relationship Lending", *supra* note 82 at 351-352.

125 Voordeckers & Steijvers, *supra* note 81 at 3071.

126 Berger Udell, "Relationship Lending" *supra* note 82 at 362; Jimenez *et al.*, *supra* note 81 at 270; Voordeckers & Steijvers, *supra* note 81 at 3080; Pozzolo, *supra* note 10 at 21

127 Jimenez *et al.*, *supra* note 81 at 270; Voordeckers & Steijvers, *supra* note 81 at 3080; Berger & Udell, "Relationship Lending" *supra* note 82 at 373.

128 Berger & Udell, "Relationship Lending" *supra* note 82 at 373.

129 Brenda G. Cox *et al.*, "The National Survey of Small Business Finances: Description and Preliminary Evaluation" (1989) Federal Reserve Board Finance and Economics Discussion Series No 93; Berger & Udell, "Relationship Lending" *supra* note 82 at 356.

130 Berger & Udell, "Relationship Lending" *supra* note 82 at 365, 373.

for long-term loans, but not for short-term loans.[131] Though the short-term loan result seems to contradict the information theory, it may be a product of a lower default risk that enables lenders to issue loans without the additional information acquired through longer relationships.[132] In the other study, Voordeckers & Steijvers found a relatively weak negative correlation between relationship length and the incidence of secured credit.[133] This partially contradicts the stronger correlation found in other studies, but Voordeckers and Steijvers' suggested that the bank they studied may have used collateral to discourage other lenders from extending credit.[134] Though these two studies are less conclusive than Berger and Udell's, a close examination does suggest that their findings are consistent with a significant negative correlation between relationship length and secured credit.

While several studies suggest that secured credit can alleviate information issues in the lending process, there is contradictory evidence that suggests more research is needed to draw any definitive conclusions. Without further research, it is difficult to fully accept the information theory for two reasons. First, empirical studies have only tested two variables, borrower age and length of lending relationship, that could act as proxies for the availability of credit information. A borrower's age is an imprecise measure of the credit information available to lenders and it is equally likely to reflect an increased risk of default. Second, the studies that tested how these proxy measures affected the incidence of secured credit produced contradictory results. Studies investigating how a borrower's age affects the incidence of secured credit have not consistently found a negative correlation between the two, and there has not been enough research to dismiss findings that suggest the correlation does not exist. The relationship lending studies have been more consistent in finding that longer relationships decrease the incidence of secured credit, but the Voordeckers and Steijvers and Jimenez et al. studies call the strength of that correlation into question. Further research is necessary to assess the predictive accuracy of the information theory.

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131 Jimenez *et al.*, *supra* note 81 at 270.

132 Mann, "Explaining the Pattern" *supra* note 11 at 675.

133 Voordeckers & Steijvers, *supra* note 81 at 3080.

134 *Ibid.*

9. 4. Liquidation Value

Recall that, under the repayment theory, the value of a borrower's collateral should be positively correlated with the incidence of secured credit.[135] If the primary reason for using secured credit is its ability to ensure repayment through the use or sale of collateral, borrowers whose collateral would be of little value should use secured credit less frequently. Though no study has been able to directly test whether the liquidation value of individual firms' assets affects the incidence of secured credit, several studies have used proxy measures to test the hypothesis.[136] Beyond that, two interview-based studies were able to question lenders about their willingness to rely on liquidation value for repayment.[137]

Two studies supported the accuracy of the repayment theory by demonstrating that borrowers whose assets hold little liquidation value will use secured credit less often.[138] If lenders being able to force repayment is a significant motivating factor for secured credit, then it would be less prevalent in industries where the borrower's assets would have little value in the event of default.[139] Both studies identified industries whose value derives mainly from intangible assets and tested whether they used secured credit less often than other borrowers. In the first study, Leeth and Scott looked at small businesses in the United States and found that financial and professional services firms used secured credit significantly less than borrowers in other industries.[140] In the second study, Chen et al. found that, among publicly listed companies in Singapore, secured credit made up substantially less of the debt load for financial services firms.[141]

The Listokin study appears to support the repayment theory by demonstrating a lower incidence of secured credit among borrowers whose assets were unlikely to be available for liquidation.[142] Recall that the

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135 Schwartz, *supra* note 2 at 26-27.

136 Benmelech & Bergman, *supra* note 10; Listokin, *supra* note 81; Chen *et al.*, *supra* note 81; Leeth & Scott, *supra* note 81.

137 Mann, "Explaining the Pattern" *supra* note 11; Mann, "Small-Business Lending" *supra* note 11.

138 Leeth & Scott, *supra* note 81 at 381; Chen *et al.*, *supra* note 81 at 377.

139 Leeth & Scott, *supra* note 81 at 381.

140 *Ibid* at 391-392.

141 Chen *et al.*, *supra* note 81 at 377.

142 Listokin, *supra* note 81 at 1076.

repayment theory predicts that lenders will be less likely to use secured credit with borrowers facing restructuring because the courts will grant a stay of proceedings that prevents lenders from seizing collateral.[143] While it can be difficult to test this prediction due to the challenge of identifying a large sample of firms facing restructuring, Listokin's tort liability study may offer some support for this theory. Since the study focused on large firms in industries that had incurred significant tort liabilities, his sample necessarily would have included many firms who were at risk of becoming insolvent and needing to restructure.[144] Somewhat surprisingly, based on the redistribution theory, firms facing significant tort liabilities used secured credit less frequently than the control group. Though the sample is not targeted enough to draw any definitive conclusions, these results do seem to support the repayment theory.

Benmelech and Bergman offer additional support for the repayment theory by suggesting that more valuable collateral leads to more favourable loan terms.[145] If repayment is the primary benefit that lenders receive when they take security interests, then borrowers with valuable collateral would be able to negotiate more favourable terms because there is a greater likelihood of repayment. By controlling for borrower and loan characteristics while studying borrowing patterns in the airline industry, where secured credit is ubiquitous, Benmelech and Bergman were able to test whether an increase in liquidation value actually lowered interest rates.[146] Consistent with the repayment theory, they found that an increase in collateral value caused a statistically and economically significant reduction in interest rates and enabled borrowers to increase their debt capacity.[147] While this does not necessarily imply that asset value influences the decision to use secured credit, it does seem to indicate that lenders view collateral value as an important benefit associated with secured loans.

Finally, Mann conducted two studies that cast doubt on the idea that liquidation value is the sole benefit, or even always an important benefit, of secured credit by interviewing participants in the lending market.[148] As

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143 Companies' Creditors Arrangement Act, RSC 1985, c C-36 at s. 11.02 (1)

144 Listokin, *supra* note 81 at 1077.

145 Benmelech & Bergman, *supra* note 10 at 17.

146 *Ibid* at 10.

147 *Ibid* at 17.

148 Mann, "Small-Business Lending" *supra* note 11; Mann, "Explaining the Pattern" *supra*

expected, Mann found that some lenders and business executives considered liquidation value to be the most important reason for using secured credit.[149] Other interviewees, however, suggested that liquidation value may not always account for the decision to use secured credit. In the small business context, where the majority of loans are still secured, lenders noted that borrowers often lack the type of collateral that holds significant liquidation value and it is unwise to rely on it.[150] More broadly, both lenders and business executives warn that it can be difficult to recover in full by relying on the liquidation value of collateral.[151] Though they are not definitive, and finding any corroborating statistical evidence has proven difficult, these claims suggest that lenders may look beyond liquidation value when they decide to reduce the interest rate on a secured loan.

The evidence available largely confirms that liquidation value is a key part of secured credit's appeal for some lenders, but some studies indicate that it is not always the most important factor. While the use of proxy measures is not ideal, the correlation between liquidation values and secured credit was consistent across several different proxy measures. The diversity of measures and the consistency of the results suggest that liquidation value is a key consideration for some lenders when they decide whether to offer lower interest rates for secured loans. However, these findings do not foreclose the possibility that other factors contribute to that rate reduction. Instead, based on Mann's qualitative studies, it seems likely that liquidation value alone does not account for the rate reduction in many cases.

D. *Why does Secured Credit Lower Interest Rates?*

The theoretical and empirical research completed to date suggests that conventional wisdom does not fully capture why secured credit lowers interest rates. While the lender's enhanced ability to recover losses in the event of default is likely one of the primary reasons for lower interest rates, it does not appear to be the only reason. Preventing borrower misbehaviour and obtaining information about a borrower's creditworthiness both appear to be additional plausible reasons for lenders to lower interest rates. The

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note 11.

149 Mann, "Explaining the Pattern" *supra* note 11 at 640.

150 Mann, "Small-Business Lending" *supra* note 11 at 15-17.

151 Mann, "Explaining the Pattern" *supra* note 11 at 640

strong positive correlation between default risk and secured credit and market participants' comments about the insufficiency of liquidation values lend support to the default prevention theory. Using secured credit less after developing a relationship with a borrower, along with the use of secured credit by high-quality borrowers with minimal credit history, suggests that lenders will use security interests to remedy a lack of information. Therefore, despite the lack of empirical support for the monitoring, redistribution and signaling theories, existing research seems to demonstrate that the value of secured credit extends beyond the value of a borrower's collateral.

Unfortunately, however, existing research does little to reveal the relative importance of the different possible motives for using secured credit. The most consistent and reliable empirical trends do not help us distinguish between the different plausible theories. The positive correlation between default risk and secured credit is in line with both the repayment theory and the default prevention theory. The negative correlation between relationship length and secured credit offers clearer support for the information theory, but studies have not yet compared the relative significance of relationship length and default risk in loan decisions. The same applies for studies that isolate the influence of liquidation value, which support the repayment theory but have typically employed more creative methods designed to focus narrowly on liquidation value. Future research focusing on comparing the weight that these different factors carry when borrowers and lenders make loan decisions is necessary.

IV. III. IS SECURED CREDIT SOCIALLY BENEFICIAL?

The preceding analysis highlighted the lack of a unified theory for why secured credit results in lower interest rates. In the rest of the paper, we analyze the extent to which policies that inform laws governing secured credit consider its overall social impact. Article 9 of the Uniform Commercial Code and the Canadian PPSAs aim to facilitate the use of secured credit.[152] If lawmakers intend to pursue policies that encourage the use of secured credit, it is reasonable for the opponents of those policies to ask questions about their social impact. Until the proponents of secured

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[152] Steven L. Harris & Charles W. Mooney Jr., "A Property-Based Theory of Security Interests: Taking Debtors' Choices Seriously" (1994) 80:8 Va L Rev 2021 at 2021-2022.

credit can persuasively show that secured credit has a positive, or at least neutral, social impact, the secured transactions law reform movement will be open to criticism.

The traditional explanation of secured credit's societal value was that it enabled lenders to issue risky loans that they would otherwise refuse because they could rely on the collateral value for repayment.[153] In other words, secured credit is a socially beneficial activity because it enables riskier borrowers to access credit markets.[154] However, early studies of secured credit struggled to build a reliable theoretical model that confirmed secured credit was an efficient or socially beneficial practice.[155] While several of these earlier studies suffered from methodological issues, like assuming that risk premiums could rise infinitely or excluding the additional assets that a borrower could accrue as the result of a loan, they did raise questions about the social value of secured credit.[156]

As a result, a body of literature has now emerged that explores whether the social benefits of secured credit warrant the creation of a legal regime designed to facilitate its use.[157] While the early studies dismissing the conventional explanation no longer carry as much weight, our current understanding suggests that the conventional wisdom failed to fully capture the possible effects of secured credit. This section will describe the three main theories of secured credit's social impact before reviewing the empirical evidence that sheds light on the relative accuracy of those theories.

A. *Theory*

As legal scholars wrestle with the potential societal impact of secured credit, three main schools of thought have emerged about its overall impact on society. The first theory mimics the traditional explanation and suggests that secured credit has a positive impact because it improves access to credit by enabling lenders to issue riskier loans.[158] The second theory claims that

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153 See UNCITRAL, *supra* note 7 at para 5; Fleisig *et al.*, *supra* note 7.

154 Schwartz, *supra* note 2 at 7; Steven L Schwarcz, "The Easy Case for the Priority of Secured Claims in Bankruptcy" (1997) 47:3 Duke LJ 425 at 474.

155 Shupack, *supra* note 12 at 1073-1083.

156 Carlson, "Zero-Sum Game" *supra* note 12 at 1648-1649,

157 Schwartz, *supra* note 2; Shupack, *supra* note 12; Carlson, "Efficiency of Secured Lending" *supra* note 16; Schwarcz, *supra* note 153; Bebchuk & Fried, *supra* note 73.

158 Harris & Mooney, *supra* note 151 at 2035; Rizwaan Jameel Mokal, "The Search for Someone to Save: A Defensive Case for the Priority of Secured Credit" (2002) 22:4

secured credit is an efficient financing mechanism because it lowers costs for debtors and creditors.[159] Finally, the third theory holds that secured credit has a negative impact because it transfers wealth from unsecured creditors to borrowers and secured creditors.[160] This section will analyze each of those theories.

10. 1. Value Creation

One prominent argument for the efficiency and positive impact of secured credit is that it adds value for all creditors by increasing the value and solvency of debtors that could not receive unsecured loans.[161] This argument echoes the traditional rationale for secured credit, but researchers have made an effort to provide a theoretical foundation for it. By modifying the theoretical models used in earlier theory studies, some scholars have claimed that secured credit creates a net gain when it facilitates a loan that would not be practical without security.[162]

One central tenet of the value creation theory is the premise that secured credit can facilitate loans that would not be feasible in the absence of a security interest. Give that risk premiums and interest rates cannot increase indefinitely, Shupack demonstrated that secured credit can facilitate certain high risk loans that would not be feasible without security.[163] Typically, this occurs when a borrower presents a risk of default that is high enough to prevent lenders from lending on an unsecured basis. Kripke has also noted that secured credit is uniquely capable of facilitating the "rapid lending" that is necessary when commercial realities prevent a

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Oxford J Legal Stud 687 at 726; Shupack, *supra* note 12 at 1106-1107; Schwarcz, *supra* note 153 at 455-460; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2193-2195; Kripke, *supra* note 7 at 947.

159 Levmore, *supra* note 19; Finch, *supra* note 18; Jackson & Kronman, *supra* note 15; Buckley, *supra* note 15; Triantis, "Imperfect Information" *supra* note 15; Schwartz, *supra* note 2; Armour, *supra* note 17.

160 Bebchuk and Fried, *supra* note 73; Scott, "The Truth" *supra* note 15.

161 Harris & Mooney, *supra* note 151 at 2035; Mokal, *supra* note 157 at 726; Shupack, *supra* note 12 at 1106-1107; Schwarcz, *supra* note 153 at 455-460; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2193-2195; Kripke, *supra* note 7 at 947.

162 Shupack, *supra* note 12; Kripke, *supra* note 7; Harris & Mooney, *supra* note 151; Schwarcz, *supra* note 153; Mokal, *supra* note 157; Carlson, "Efficiency of Secured Lending" *supra* note 16.

163 Shupack, *supra* note 12 at 1097-1098.

lender from completing adequate screening.[164] Relying on this ability to facilitate risky loans, several scholars make the case that secured credit benefits the debtor and all of its creditors by providing additional capital that would not otherwise be available to the debtor.[165]

The above referenced studies identify two reasons that secured credit is efficient when it facilitates these types of loans. First, the new capital provided by the secured loan increases the assets available for recovery by creditors and ensures that wealth is not transferred away from unsecured creditors at the time of the loan.[166] In short, these studies point out that a debtor granting security interests in $100 of collateral for $100 of new money has not diminished the pool of assets available to unsecured creditors. Second, these studies argue that the infusion of new capital provided by secured loans will benefit all creditors by reducing the likelihood that the debtor will become insolvent.[167] While these studies did not cite any direct empirical evidence for the claim that secured credit provides capital that helps debtors avoid insolvency, there is evidence that additional liquidity can reduce the risk of insolvency.[168] When secured credit provides additional liquidity that decreases the debtor's risk of default, it also benefits unsecured creditors because the expected value of their claims increases as well.[169] Citing these benefits to debtors and unsecured creditors, the proponents of this value creation theory argue that secured credit can be socially beneficial.

The value creation theory does, however, rely on the premise that borrowers and lenders use secured credit to extend risky loans that help debtors survive. Among proponents of the value creation theory, there is

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164 Kripke, *supra* note 7 at 947.

165 Harris & Mooney, *supra* note 151 at 2028-2029; Schwarcz, *supra* note 153 at 435-436; Shupack, *supra* note 12 at 1106.

166 Shupack, *supra* note 12 at 1106; Harris & Mooney, *supra* note 151 at 2028; Schwarcz, *supra* note 153 at 435.

167 Harris & Mooney, *supra* note 151 at 2030-2035; Mokal, *supra* note 157 at 721-727; Schwarcz, *supra* note 153; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2193-2195.

168 John D. Finnerty, Corporate Financial Analysis: A Comprehensive Guide to Real-World Approaches for Financial Managers 271 (1986); Rico, Manuel, Naresh R Pandit & Francisco Puig, "SME insolvency, bankruptcy, and survival: an examination of retrenchment strategies" (2020) 57:1 Small business economics 111–126.

169 Harris & Mooney, *supra* note 151 at 2035; Mokal, *supra* note 157 at 726.

some disagreement about whether that assumption reflects reality. Several studies acknowledged that borrowers and lenders may use secured credit in other ways and reiterated the need for empirical evidence to confirm their theory.[170] Other studies, however, argue that various factors, such as the opportunity costs and negative connotations associated with secured credit or creditors' aversion to collecting through bankruptcy, will largely limit the use of secured credit to situations where it is socially beneficial.[171]

11. 2. Reduced Lending Costs

A second group of theories claims that secured credit is socially beneficial because it reduces the total costs associated with debt financing.[172] Borrowers and lenders incur screening and monitoring costs that detract from the net benefits of loans.[173] As noted above, some studies have argued that secured credit may lower these costs for secured lenders and borrowers.[174] Looking beyond the narrow impacts on the borrower and secured lender, however, several scholars have argued that secured credit is efficient because it can reduce the total screening and monitoring costs incurred by all the lenders of a given borrower.[175]

Secured credit may reduce the total screening costs incurred by all lenders in two ways for both secured and unsecured lenders. One way is that secured credit can relieve unsecured creditors of the need to assess the value of their potential bankruptcy claim.[176] According to Buckley, unsecured creditors can react to the existence of security interests by assuming their bankruptcy claim is of no value because a debtor's assets will be encumbered. [177] Free from the need to assess the value of their potential

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170 Harris & Mooney, *supra* note 151 at 2036; Shupack, *supra* note 12 at 1122-1124; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2213. See also Paul M. Shupack, "Defining Purchase Money Collateral", (1993) 29 Idaho L. Rev. 767 at 781.

171 Mokal, *supra* note 157; Schwarcz, *supra* note 153.

172 Finch, *supra* note 18; Buckley, *supra* note 15; Triantis, "Imperfect Information" *supra* note 15; Schwartz, *supra* note 2; Armour, *supra* note 17.

173 Triantis, "Imperfect Information" *supra* note 15 at 233.

174 See, *infra,* Section 2.1(c) and Section 2.1(d).

175 Levmore, *supra* note 19 at 49; Finch, *supra* note 18 at 641; Jackson & Kronman, *supra* note 15 at 1150; Buckley, *supra* note 15 at 1421-1422; Triantis, "Imperfect Information" *supra* note 15 at 233.

176 Finch, *supra* note 18 at 641; Buckley, *supra* note 15 at 1424-1425.

177 Buckley, *supra* note 15 at 1424-1425.

bankruptcy claim, unsecured creditors will enjoy lower screening costs than they would if a debtor only borrowed unsecured.

In addition, secured credit may lower net screening costs by encouraging lenders to specialize in different types of screening.[178] Determining a debtor's overall risk of default is quite different from assessing the future liquidation value of collateral. Lenders will also require different skills to evaluate the repayment prospects of secured and unsecured loans.[179] In fact, Kripke notes that banks recognized these differences and purchased asset-based lenders to boost their screening competencies when they began issuing secured credit more frequently.[180] To the extent that different lenders can specialize in the type of screening they rely on most frequently, they can become more efficient and reduce total screening costs.[181]

In addition to the reduction of screening costs, secured credit may reduce the cost of a loan by lowering the total monitoring costs incurred by lenders in three ways. First, secured credit may reduce total monitoring costs by preventing debtors from engaging in certain types of risky behaviour.[182] As noted above, security interests can prevent debtors from replacing existing assets with risker ones and may limit a debtor's ability to borrow excessively because the secured creditor has already claimed a portion of the debtor's assets upon default.[183] Schwartz argues that this deterrent effect will benefit all creditors by limiting the amount of monitoring necessary to prevent debtor misbehaviour.[184] Second, secured credit could reduce monitoring costs by allowing creditors to develop specialized expertise in monitoring specific types of assets that they take security interests in.[185]

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178 Triantis, "Imperfect Information" *supra* note 15 at 251; Buckley, *supra* note 15 at 1425-1426.

179 *Ibid.*

180 Kripke, *supra* note 7 at 974.

181 Triantis, "Imperfect Information" *supra* note 15 at 251; Buckley, *supra* note 15 at 1425-1426

182 Schwartz, *supra* note 2 at 11; Armour, *supra* note 17 at 4.

183 Armour, *supra* note 17 at 4. See, *infra*, Section 2.1(b).

184 Schwartz, *supra* note 2 at 11.

185 Triantis, "Imperfect Information" *supra* note 15 at 242; Finch, *supra* note 18 at 643. Jackson & Kronman, *supra* note 15 at 1154-1161, put forward a similar theory that suggests secured credit allows debtors and creditors to allocate monitoring duties to the most efficient monitor.

Similar to the screening specialization theory, this specialized expertise could allow the creditor to monitor the debtor at lower costs. Third, secured credit could lower costs by preventing duplication of creditor monitoring efforts.[186] Where multiple creditors monitor the security interests that a debtor granted to them, they can theoretically monitor a significant portion of the debtor's business without any duplication.[187]

12. 3. Redistribution

Unlike LoPucki's exploitation theory that considers redistribution the primary rationale for secured credit, some studies suggest that wealth redistribution may be an undesirable byproduct of granting security interests.[188] This inadvertent redistribution does not have significant implications for the debate surrounding the determinants of secured credit, but it does affect the overall social impact of secured credit. According to some studies, the priority rights granted to secured creditors create an incentive for debtors and creditors to use security interests inefficiently.[189]

Contrary to the exploitation hypothesis, proponents of this theory do not argue that debtors or secured creditors seek to transfer wealth away from unsecured creditors. In fact, they acknowledge that there will likely be no redistribution of wealth involved when a secured loan contributes to the debtor's continued viability or increases the assets available to all creditors.[190] However, secured creditors will often benefit from a redistribution of wealth if the debtor becomes insolvent.[191]

Bebchuk and Fried argue that these types of wealth transfers allow secured creditors to issue loans that are not efficient because debtors and secured creditors are permitted to externalize the costs of their transaction.[192] For example, if a debtor and secured creditor receive $20 of benefits from a secured loan, but incur $11 of transaction costs and transfer

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186 Finch, *supra* note 18 at 643.

187 *Ibid.*

188 Shupack, *supra* note 12 at 1123-1124; Bebchuk & Fried, *supra* note 73 at 1305-1306; Harris & Mooney, *supra* note 151 at 2036-2037; Scott, "The Truth" *supra* note 15 at 1461.

189 Bebchuk and Fried, *supra* note 73 at 1306; Scott, "The Truth" *supra* note 15 at 1461.

190 Ibid.

191 Bebchuk & Fried, *supra* note 73 at 1305-1306; Harris & Mooney, supra note 151 at 2036.

192 Bebchuk & Fried, *supra* note 73 at 1305-1306.

$10 of bankruptcy value away from an unsecured creditor, the total costs of the loan are greater than its benefits. However, neither the debtor nor the secured creditor bear the cost of the unsecured creditor's lost bankruptcy value. Therefore, the redistribution of bankruptcy value creates an incentive for the debtor and the secured creditor to issue a secured loan that is inefficient.[193]

One interesting element of this theory is that it is entirely consistent with the value creation theory.[194] The inefficiency theory accepts that the facilitation of new financing opportunities may create gains for all parties, but it also points out that not all debtors that will thrive after receiving a secured loan. Considering that secured credit provides an incentive for lenders to finance value-decreasing projects by externalizing the costs of a future bankruptcy, it is possible that a higher proportion of borrowers that receive secured loans will fail.[195] Given the demonstrated inefficiency of secured loans when the debtor defaults, the inefficiency theory argues that a higher proportion of debtor failures would ensure that the costs of secured credit outweigh its benefits.[196]

B. *Empirical Evidence*

While more empirical studies have analyzed the determinants of secured credit, several quantitative studies of secured credit have explored how secured credit impacts debtors, creditors and the credit market as a whole. Looking at these studies, it is possible to identify two trends that provide insight into whether secured credit is socially beneficial. The first is that a number of studies have confirmed the value creation theory's key prediction by demonstrating that secured credit increases the availability of

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193 Ibid at 1306-1308.

194 Scott, "The Truth" *supra* note 15 at 1461.

195 Bebchuk & Fried, *supra* note 73 at 1320.

196 Bebchuk & Fried, *supra* note 73 at 1305-1306; Scott, "The Truth" supra note 15 at 1461.

credit.[197] Secondly, several studies have produced findings that offer tentative support for the redistribution theory.[198]

13. 1. Availability of Credit

Recall that, pursuant to the value creation theory, secured credit is a socially beneficial activity because it increases the availability of credit and permits more firms to raise the capital that they need. If secured credit enables lenders to issue loans that would otherwise be too risky, facilitating the use of secured credit should produce an observable increase in the availability of credit. Various empirical studies have explored how secured credit influences lenders' willingness to extend credit.[199]

To determine whether access to secured credit increases the availability of credit, empirical studies must compare how different legal regimes affect

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197 Rafael La Porta *et al.*, "Legal Determinants of External Finance" (1997) 52:3 The Journal of Finance 1131; Simeon Djankov *et al.*, "Private credit in 129 countries" (2007) 84:2 Journal of Financial Economics 299; Inessa Love *et al.*, "Collateral Registries for Movable Assets: Does Their Introduction Spur Firms' Access to Bank Finance?" (2013) World Bank Working Paper No 6477; Charles W Calomiris *et al*, "How Collateral Laws Shape Lending and Sectoral Activity" (2017) 123:1 Journal of Financial Economics 163; Geraldo Cerqueiro *et al.*, "Collateral damaged? Priority structure, credit supply, and firm performance" (2020) 44 Journal of Financial Intermediation [Cerqueiro *et al.* "Collateral Damaged?"]; Geraldo Cerqueiro *et al.*, "Collateralization, Bank Loan Rates, and Monitoring" (2016) 71:3 The Journal of Finance 1295 [Cerqueiro *et al.*, "Bank Loan Rates"]; Kevin Aretz *et al.*, "Access to Collateral and the Democratization of Credit: France's Reform of the Napoleonic Security Code" (2020) 75:1 The Journal of Finance 45; Vikrant Vig, "Access to Collateral and Corporate Debt Structure: Evidence from a Natural Experiment" (2013) 68:3 The Journal of Finance 881.

198 Berger & Udell, "Loan Quality" *supra* note 10; Juliano J Assunção, Efraim Benmelech & Fernando S S Silva, "Repossession and the Democratization of Credit" (2014) 27:9 The Review of Financial Studies 2661; Sergei A Davydenko and Julian R Franks, "Do Bankruptcy Codes Matter? A Study of Defaults in France, Germany,and the U.K." (2008) 63:2 The Journal of Finance 565; Arturo Bris *et al.*, "The Costs of Bankruptcy: Chapter 7 Liquidation versus Chapter 11 Reorganization" (2006) 61:3 The Journal of Finance; Couwenberg & Abe Jong, "Costs and Recovery Rates in the Dutch Liquidation-Based Bankruptcy System" (2008) 26:2 European Journal of Law and Economics 105.

199 La Porta *et al.*, *supra* note 196; Djankov *et al.*, *supra* note 196; Love *et al.*, *supra* note 196; Calomiris *et al.*, *supra* note 196; Cerqueiro *et al.*, "Collateral Damaged?", *supra* note 196; Cerqueiro *et al.*, "Bank Loan Rates", *supra* note 196; Aretz *et al.*, *supra* note 196; Vig, *supra* note 196.

lending practices.[200] Such studies require extensive information about borrowers and loans governed by different laws of secured credit, and they must account for the many other variables that could influence the availability of credit. Most studies have relied on one of two methods to overcome these challenges. The first method involves a comparison of the lending practices and laws in different countries. Earlier studies typically used this type of cross-country comparison.[201] The second method, which has recently become the more popular approach, is exploring how a country's legal reforms affect its credit market.[202]

Cross-country comparisons of legal regimes and credit markets have suggested that facilitating secured credit increases the availability of credit.[203] The majority of these studies have been broader examinations of how creditor rights affect credit markets. The first prominent example of this type of study is LaPorta et al.'s examination of creditor rights in 49 countries.[204] Their study showed that countries with stronger protections for secured creditors in insolvency proceedings tend to have larger credit markets. However, this relationship was insignificant when controlling for the origin of a country's legal system.[205] To expand upon LaPorta et al.'s sample size and find stronger correlations, Djankov et al. conducted a similar study but expanded the dataset to include information about 129 countries over 25 years.[206] Confirming LaPorta et al.'s initial findings, their study found a significant correlation between stronger creditor protections and increased availability of credit.

Despite the significance of Djankov et al.'s findings, questions remained about the reliability of these two studies. Both used the same measures of

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200 John Armour *et al.*, "How Do Creditor Rights Matter for Debt Finance? A Review of Empirical Evidence" in Frederique Dahan, ed, *Research Handbook on Secured Financing in Commercial Transactions* (Cheltenham: Edward Elgar Publishing, 2015) 3 at 6; Rainer Haselmann *et al.*, "How Law Affects Lending" (2010) 23:2 The Review of Financial Studies 549 at 552.

201 See, for example, La Porta *et al.*, *supra* note 196; Djankov *et al.*, *supra* note 196; Love *et al.*, *supra* note 196; Calomiris *et al. supra* note 196.

202 See, for example, Cerqueiro *et al.*, "Collateral Damaged?" *supra* note 196; Cerqueiro *et al.*, "Bank Loan Rates" *supra* note 196; Aretz *et al.*, *supra* note 196.

203 La Porta *et al.*, *supra* note 196; Djankov *et al.*, *supra* note 196.

204 La Porta *et al.*, *supra* note 196 at 1145-1146.

205 *Ibid* at 1145.

206 Djankov *et al.*, *supra* note 196 at 314-315.

secured creditor protection that relied solely on the provisions of a country's insolvency laws.[207] This ignored the effect of other secured creditor rights like extra-judicial enforcement, and it is not clear that there was a theoretical basis for predicting that the adoption of their chosen protections would increase the credit supply. In addition, it was not clear that their controls, which were largely limited to GDP and fixed effects dummy variables, could account for the many factors that may affect a country's credit supply.[208]

Attempting to improve on these broader studies, other country comparison studies found that specific reforms designed to encourage the use of secured credit led to an increase in the availability of credit. One example is Love et al.'s study of credit availability in a group of countries that introduced collateral registries.[209] Comparing these countries to other nearby countries with similar economic situations, Love et al. found that there was a significant increase in the number of firms that were able to take out loans in countries that established registries.[210] A second study that used a similar approach was Calomiris et al.'s examination of collateral laws and the use of movable assets as collateral.[211] Looking at collateral laws and secured loan data in 12 emerging market countries, they found that laws facilitating the use of movable assets as collateral were likely to increase the availability of credit. In countries that enabled borrowers to pledge movable collateral, lenders required less collateral for a given loan and a wider variety of borrowers were able to pledge collateral.[212] These studies suggest that facilitating secured credit does increase the availability of credit, but their narrower focus may allow other differences in a country's lending laws to influence their results.

More recent studies that examine the effects of different legal reforms have also suggested that facilitating secured lending increases the availability of credit.[213] Each of these studies has relied on a difference-in-difference method of analysis to isolate the effects of a specified legal change. In other

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207 Armour *et al.*, *supra* note 199 at 6.

208 *Ibid.*

209 Love *et al.*, *supra* note 196.

210 *Ibid* at 12-13.

211 Calomiris *et al*, *supra* note 196.

212 *Ibid* at 171-173.

213 Cerqueiro *et al.*, "Collateral Damaged?" *supra* note 196; Cerqueiro *et al.*, "Bank Loan Rates" *supra* note 196; Aretz *et al.*, *supra* note 196.

words, they identified groups likely to be affected by the new law and compared any change in their behaviour to a control group that was unlikely to be influenced by the new law. Though they have all relied on this one study design, they studied different issues. Cerqueiro et al., for example, studied the effects of a 2004 change in Swedish Bankruptcy laws that stripped floating charge secured creditors of priority rights and capped their recovery in insolvency proceedings.[214] In two different studies, they were able to show that Swedish firms who granted floating charges received less credit under the new laws and a Swedish bank reduced the credit limits of loans secured by floating charges.[215] A second example is Aretz et al.'s study of French reforms that enabled borrowers to grant non-possessory security interests.[216] Comparing firms whose assets were valuable collateral to firms who relied more heavily on liquid assets, Aretz et al. found that facilitating the use of secured credit increased the availability of credit.[217] Beyond that, they found that smaller, younger and riskier borrowers enjoyed the biggest increase in their ability to access credit.[218] Both of these studies suggest that facilitating the use of collateral increases the availability of credit.

However, there is some evidence that facilitating the use of secured credit does not always increase the availability of credit. Vig's study of collateral reforms in India, for example, found evidence that laws encouraging the use of secured credit reduced the supply of credit.[219] Vig studied the effects of a new law that granted secured creditors the right to seize and sell collateral outside of the judicial process for the first time. Using the difference-in-difference model, Vig found that firms who held tangible assets that could be used as collateral received less credit and used secured credit less often after the law came into effect. Vig suggests that borrowers were more reluctant to grant security interests, which reduced their access to credit, because the possibility of extra-judicial enforcement

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214 Cerqueiro *et al.*, "Collateral Damaged?" *supra* note 196; Cerqueiro *et al.*, "Bank Loan Rates" *supra* note 196.

215 Cerqueiro *et al.*, "Collateral Damaged?" *supra* note 196 at 7; Cerqueiro *et al.*, "Bank Loan Rates" *supra* note 196 at 1311.

216 Aretz *et al.*, *supra* note 196.

217 *Ibid* at 62.

218 *Ibid* at 71.

219 Vig, *supra* note 196 at 914-916.

increased the consequences of default.[220] This effect could have been exacerbated by the fact that lenders would rely heavily on asset seizure to avoid India's notoriously ineffective insolvency laws.[221] As a result, Vig's study seems to suggest that secured credit's impact on the availability of credit is dependent on the broader body of law that affects borrowers and lenders.

Despite Vig's study, most empirical evidence does suggest that encouraging the use of secured credit does increase the overall availability of credit. This result has remained fairly consistent across both cross-country and within-country comparisons. Studies that analyzed expansions of secured credit showed an increase in the credit supply, while laws restricting secured credit reduced the availability of credit. However, it is important to note that Vig's findings demonstrate the need for caution when discussing these findings. Not all laws that expand access to secured credit will have a positive effect on credit availability, and further research is needed to determine how the different features of secured credit can impact the availability of credit.

14. 2. Creditor Repayment

Creditor repayment is a central issue in the debate about secured credit's impact. According to the redistribution theory, secured credit creates significant inequalities in repayment by allowing secured lenders to recover more in insolvency proceedings at the expense of unsecured lenders.[222] The value creation theory, on the other hand, suggests that secured credit increases recoveries for all creditors because it facilitates additional loans that increase a borrower's assets and enable them to remain solvent.[223] Ultimately, despite the possibility that it also has positive effects on the cost and availability of credit, secured credit's overall social impact likely depends on how it affects creditor repayment.[224] Several studies have

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220 *Ibid* at 915, 925.

221 Armour *et al.*, *supra* note 199 at 24.

222 Bebchuk & Fried, *supra* note 73 at 1305-1306; Harris & Mooney, *supra* note 151 at 2036.

223 Harris & Mooney, *supra* note 151 at 2035; Mokal, *supra* note 157 at 726; Shupack, *supra* note 12 at 1106-1107; Schwarcz, *supra* note 153 at 455-460; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2193-2195; Kripke, *supra* note 7 at 947.

224 Scott, "The Truth" *supra* note 15.

explored the relationship between secured credit and the amount that lenders recover from borrowers.

Two studies appear to show that secured credit encourages risker loans that are more likely to end in a default.[225] In the first study, Berger and Udell tested whether secured loans are riskier than unsecured loans by analyzing charge-off data for banks in the United States.[226] Unfortunately, the charge-off data did not include information about individual loans and they had to examine whether banks with a higher proportion of secured loans suffered greater losses. Keeping this limitation in mind, Berger and Udell's analysis revealed that secured loans were associated with greater losses for banks than unsecured loans.[227] If secured creditors consistently suffer greater losses, that would lend significant support to the redistribution theory's prediction that secured credit creates an incentive for creditors to issue overly risky loans to unsuccessful borrowers. In the second study, Assunção et al. studied how laws enhancing secured creditor rights affected the auto loan market.[228] While the study focused primarily only on consumer loans, it did provide an excellent opportunity to isolate the effects of facilitating secured credit. They found that the reforms expanded access to credit and enabled riskier borrowers to receive credit, but also led to an increase in defaults due to the risky nature of these new loans.[229] The findings from both studies offer some support for the redistribution theory's claim that secured credit incentivizes overly risky loans.

Other studies suggest that secured creditors capture a disproportionate amount of a borrower's assets in insolvency at the expense of unsecured creditors.[230] The most persuasive of these studies was Bergstrom et al.'s examination of bankruptcy payouts before and after Finland reduced the priority rights of secured creditors.[231] Their results are consistent with the redistribution theory in two respects. First, they found that unsecured creditors recovered more in bankruptcy proceedings when secured lenders'

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225 Berger & Udell, "Loan Quality" *supra* note 10; Assunção *et al.*, *supra* note 197.

226 Berger & Udell, "Loan Quality" *supra* note 10.

227 *Ibid* at 36-37.

228 Assunção *et al.*, *supra* note 197.

229 *Ibid* at 15, 18-19.

230 Bergstrom *et al.*, *supra* note 27; Davydenko & Franks, *supra* note 197; Bris *et al.*, *supra* note 197; Couwenberg & Jong, *supra* note 197.

231 Bergstrom *et al.*, *supra* note 27.

lost part of their priority rights.[232] Second, they found that the law had no statistically significant effect on total amount paid to creditors. [233] This finding undermines the value creation theory's prediction that secured loans provide additional assets that increase recoveries for all creditors. Many other studies that reveal the disproportionate recovery rates for secured creditors do not have the benefit of studying legal reforms that highlight secured credit's effect.[234] Instead, these studies simply demonstrate the disparity in recovery rates for secured and unsecured creditors. Despite that shortcoming, there are many studies in the United States and various European jurisdictions that have shown secured creditors enjoy disproportionate recovery rates compared to unsecured creditors.[235] It appears that the redistribution theory is somewhat accurate in predicting that secured credit transfers wealth away from unsecured creditors if the borrower becomes insolvent.

C. *Does Secured Credit Create Wealth?*

Studies that examine the social impact of secured credit seem to identify secured credit's positive and negative effects, but they paint a rather murky picture of secured credit's overall impact because they have yet to identify the relative magnitude of those effects. Current research suggests that secured credit has two significant effects – one positive and one negative. On the positive side of the ledger, and consistent with the traditional rationale for encouraging secured credit, secured credit does increase the availability of credit. The more concerning trend is that secured credit leads to some level of wealth redistribution from unsecured creditors to secured creditors when the debtor defaults or becomes insolvent. Given that secured creditors tend to be more sophisticated entities with greater economic resources, many would consider this type of redistribution to be a negative effect of secured credit. However, merely identifying these two effects does not reveal whether secured credit has a net positive social impact.

To determine which of these effects is more significant, further research is necessary and two key questions remain. First, how much do reforms that facilitate the use of secured credit increase the availability of credit? While

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232 *Ibid* at 282-284.

233 *Ibid* at 284, 287.

234 See Couwenberg & Jong, *supra* note 197 at 110-111 for a review of these studies.

235 *Ibid.*

there has been some research that reveals the extent of that increase broadly, further studies will be necessary to confirm those results and determine how different types of reforms alter that effect. Second, how much of the additional credit facilitated by security interests results in defaults that transfer wealth away from unsecured creditors? If the credit increase associated with secured credit derives from lenders issuing overly risky loans that ultimately fail, then secured credit's redistributional effects are likely to outweigh any increase in credit. Answering this question will require further study of loan outcomes and the default rate on secured loans. Evidence that offers a more convincing answer to these two questions would allow law and policy makers to more accurately assess the overall social impact of secured credit.

V. IV. CASE STUDY: PRIORITY OF UNPAID WAGE CLAIMS

Existing empirical research has revealed several broad trends that help us begin to evaluate different theories of secured credit, but their findings tend to lack the specificity needed to resolve the key theoretical debates. Further research is needed to draw any definitive conclusions about both the rationale for using secured credit and its overall societal impact. For example, studies have consistently suggested that there is a positive correlation between the risk of default and the incidence of secured credit, but this finding is consistent with both the repayment and default prevention theories.[236] To understand which of these theories account for that correlation, or their relative importance to lenders, there would need to be additional studies that find ways to identify the unique effects of these different theories. This type of knowledge gap is common within the secured credit literature, and those gaps are even more pronounced in Canada due to the lack of research examining how and why Canadian businesses use secured credit.

The gaps in our understanding of secured credit limit our ability to develop laws that maximize the value of secured credit without compromising other interests. Without a more complete understanding of why secured credit reduces interest rates, it is difficult to predict accurately how policy changes will affect the availability and appeal of secured credit.

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[236] See, *infra*, Section 2.2 (a).

If law and policy makers lack empirical evidence about the overall social impact of secured credit, it will be difficult to determine whether a proposed policy's benefits or costs would outweigh its impact on the use of secured credit. Instead of operating under the assumption that secured credit is beneficial and implementing reforms primarily on the basis that they are likely to facilitate it, law and policy makers should be relying upon data to design policies that maximize secured credit's benefits and minimize its costs.

To demonstrate the value of understanding secured credit's costs, benefits and effects, this section will explore how different theories of secured credit would suggest different approaches to the priority of wage claims in bankruptcy proceedings. We begin by explaining why the priority of unpaid wage claims is a key policy issue affecting secured credit and introduce the types of priority that different jurisdictions assign to unpaid wage claims. We then analyze how the ideal priority for unpaid wage claims will differ depending on the reasons that borrowers and lenders use secured credit. Finally, we demonstrate that lawmakers should consider the societal impacts of secured credit when they decide how to treat unpaid wage claims. By looking at the policy options available and how different theories of secured credit would favour different choices, this section will reveal how a deeper understanding of secured credit would enhance law and policy making.

A. *Policy Options*

One persistent policy issue that can affect secured credit is the use of statutory super-priorities to subordinate the claims of secured creditors in bankruptcy proceedings. While there are several types of claims that lawmakers have decided to grant absolute priority, one type of claim that consistently receives some form of preferential treatment is an employee's claim for unpaid wages. Employees are often viewed as particularly vulnerable creditors whose potential losses extend beyond their bankruptcy claim because they also lose out on the wages they expected to earn in the future.[237] As a result, many jurisdictions have implemented policies designed to limit the losses of employees during insolvency proceedings.[238]

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[237] Janis Pearl Sarra, Employee and Pension Claims During Company Insolvency : A Comparative Study of 62 Jurisdictions (Toronto: Carswell, 2008) at 6.

[238] Paul Secunda, "An Analysis of the Treatment of Employee Pension and Wage Claims in Insolvency and Under Guarantee Schemes in OECD Countries: Comparative Law

The widespread adoption of preferential treatment for unpaid wages is noteworthy not only because it signals the issue's importance, but also because it provides an opportunity to explore how different policy choices can affect the use of secured credit. A review of the priority regimes adopted by different jurisdictions quickly reveals that there has been little harmonization on these issues.[239] Instead, priority regimes tend to resemble snowflakes in that no two sets of rules will be exactly alike.[240] However, in general, there appear to be three models for priority rankings given to unpaid wage claims.

In the first, several jurisdictions have given unpaid wage claims absolute priority in bankruptcy proceedings.[241] These claims are often capped and they typically apply to a limited time period, but they will rank ahead of secured claims in bankruptcy proceedings. Canada is one jurisdiction that has implemented a scheme granting absolute priority to certain wage claims, with employees receiving a maximum of $2,000 for unpaid wages that accrued in the six months prior to bankruptcy.[242] These claims enjoy a priority charge on the bankrupt company's current assets that ranks above secured creditors. Other jurisdictions have granted more extensive priority to unpaid wages by increasing the maximum claim or extending the charge to all of the company's assets, but we will refer to the absolute priority of unpaid wages as the "Canada model".[243] A second group of jurisdictions has given unpaid wage claims priority over secured creditors whose security interest is a floating charge over the borrower's assets.[244] These claims are paid after any claim with a fixed security interest, but they do have priority over a select group of secured creditors. One prominent example of this model is the United Kingdom, and we will refer to this option as the "UK

Lessons for Detroit and the United States" (2014) 41:3 Fordham Urb LJ 867 at 930.

239 Hannah L. Buxbaum, "Unification of the Law Governing Secured Transactions: Progress and Prospects for Reform" (2003) 8:1-2 Unif L Rev 321 at 326.

240 Jose M Garrido, "No Two Snowflakes the Same: The Distributional Question in International Bankruptcies" (2011) 46:3 Tex Int'l L J 459 at 481.

241 See Secunda, *supra* note 241 at 930; Sarra, *supra* note 236 at 13.

242 Bankruptcy and Insolvency Act, RSC 1985, c B-3, ss 81.3 & 81.4. See also Canada Business Corporations Act, RSC 1985, c C-44, s 119.

243 See, for example, the discussion of Brazil's regime in Sarra, *supra* note 236 at 13.

244 See, for example, the discussion of policies in Israel (at 927), Slovakia (at 985) and United Kingdom (at 997) in Secunda, *supra* note 237.

model".[245] Finally, many jurisdictions do not offer any form of meaningful priority for unpaid wage claims.[246] This category includes any jurisdiction where unpaid wage claims are subordinate to all secured creditors, whether they have priority over unsecured creditors or not. One jurisdiction that ranks unpaid wage claims behind all secured creditors is the United States, and we will refer to this option as the "US model".[247]

With these three models in mind, we can explore how different theories of secured credit would alter the ideal policy choice. The rationale for using secured credit and its broader societal impacts can both help law and policy makers determine the optimal choice. Evidence regarding the rationale for secured credit would facilitate the evaluation of each option's likely impact on the use of secured credit. Evidence on the broader impacts of secured credit would inform how best to address the effect of secured credit priority on employees.

B. *Impact on the Incidence of Secured Credit*

The extent to which these three models affect the decision to use secured credit depends on which factors drive that decision. Without a reliable explanation for why borrowers and lenders use secured credit, it is difficult to assess whether any of the priority schemes could offer additional benefits for employees without compromising the value of secured credit. Looking at each of the five sources of wealth explained in Section 2 of this paper, it appears that the default prevention, information and monitoring theories are compatible with some form of priority for unpaid wage claims. The repayment and redistribution theories, on the other hand, suggest that the employees' gains would come at the expense of secured credit's value to borrowers and lenders.

If default prevention is the primary source of value provided by secured credit, significant protection for unpaid wage claims in bankruptcy proceedings as a policy choice would not negatively impact its use. The priority of unpaid wage claims would not negate secured credit's ability to deter future borrowing or asset substitution.[248] Similarly, the effectiveness

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245 *Ibid* at 997; *Insolvency Act 1986* (UK), s 386(1).

246 Sarra, *supra* note 236 at 13-14.

247 Secunda, *supra* note 237 at 930; 11 USC § 507(4)(a); UCC § 9-317 (2010).

248 Mann, "Explaining the Pattern" *supra* note 11 at 648; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2191.

and severity of secured credit's enforcement mechanisms would likely continue to deter risky behaviour by borrowers.[249] Secured creditors would still be able to enforce their rights effectively outside of bankruptcy, and triggering insolvency would still give lenders more control over the timing of proceedings.[250] While all creditors would ultimately feel the effects of any policy that redistributes bankruptcy value, the reasoning behind the default prevention theory suggests that granting absolute priority to unpaid wage claims would have little effect on the relative appeal of secured credit. If further research demonstrated that lenders use secured credit primarily to reduce the likelihood of default, law and policy makers could confidently adopt the Canada model without compromising the appeal of secured credit.

If, on the other hand, the reduction of information asymmetries and monitoring costs are the key source of value in secured credit, that would suggest that law and policy makers ought to adopt the UK model that grants unpaid wage claims priority over floating charges. The information theory suggests that lenders can lower the cost of evaluating a borrower's creditworthiness by appraising the borrower's collateral and relying on the asset's liquidation value to ensure repayment.[251] The monitoring theory suggests that secured lenders enjoy lower monitoring costs because they only need to monitor the condition of the borrower's collateral to ensure repayment.[252] However, where the lender's security interest is a floating charge, neither of these benefits are likely to exist. Secured creditors who hold a floating charge would need to appraise or monitor all the borrower's assets, much like an unsecured creditor, to determine the value of their security interest. Therefore, if lenders use secured credit because it lowers their screening and monitoring costs, subordinating floating charges to unpaid wage claims would have little impact on the use of secured credit.

The repayment and redistribution theories both predict that only the US model would maintain the relative appeal of secured credit. Both of

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249 Kripke, *supra* note 7 at 950; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2189-2190; Mann, "Explaining the Pattern" *supra* note 11 at 646.

250 Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2189-2190; Kevin P McElcheran, *Commercial Insolvency in Canada*, 4th ed (Toronto, Ontario: LexisNexis Canada, 2019) at 171.

251 Shupack, *supra* note 12 at 1091; Buckley, *supra* note 15 at 1440.

252 Buckley, *supra* note 15 at 1440; Mann, "Explaining the Pattern" *supra* note 11 at 650; Schwartz, *supra* note 2 at 10.

these theories claim that lenders use secured credit because it increases their recoveries in the event of default or insolvency. The repayment theory suggests that the primary benefit of secured credit is its ability to ensure repayment through priority rights and the encumbrance of collateral.[253] If secured loans are subordinated in any way, it would undermine the certainty of repayment. The redistribution theory suggests that secured credit lowers a borrower's overall cost of credit because they can transfer the value of unsecured creditors' bankruptcy claims to secured creditors without compensating unsecured creditors.[254] If some of the borrower's potential bankruptcy value is shifted to wage claimants instead of secured creditors, then borrowers who attempt to redistribute that value away from unsecured creditors are unlikely to achieve the same interest rate savings. Given the central role that bankruptcy claims and liquidation value play in the repayment and redistribution theories, they both predict that the Canada model and the UK model would discourage the use of secured credit.

C. *Social Impact*

Secured credit's societal impact should also inform the priority of unpaid wage claims. Assuming that any loss of priority would discourage the use of secured credit, the optimal policy choice will depend upon which theory of secured credit's social impact is most accurate. If the redistribution theory is empirically accurate, then the optimal policy choice would likely be the Canada model. If the cost reduction and value creation arguments are empirically accurate, then the US or UK models would be more optimal. If the broader impact of secured credit is ultimately some combination of redistribution, cost reduction and value creation, balancing these effects against the benefits provided to employees would be necessary.

Proponents of the redistribution theory would advocate for the adoption of the Canada model. In fact, they may advocate for the removal of the restrictions that limit employees' recoveries under Canada's bankruptcy laws. According to the redistribution theory, secured credit is a potentially costly activity because it encourages an inefficient allocation of credit and transfers wealth away from non-adjusting unsecured creditors.[255]

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253 Triantis, "Imperfect Information" *supra* note 15 at 249; Carlson, "Efficiency of Secured Lending" *supra* note 16 at 2191.

254 LoPucki, *supra* note 20 at 1898-1899; Bebchuk & Fried, *supra* note 73 at 1305-1306.

255 Bebchuk & Fried, *supra* note 73 at 1305-1306.

Not only would granting absolute priority to unpaid wage claims benefit employees, a group of non-adjusting creditors, but it would also offer a partial remedy to the inefficient credit allocation because it forces secured creditors to internalize some of the costs of default. If further research demonstrated that secured credit is ultimately a costly activity that redistributes wealth in undesirable ways, law and policy makers ought to grant extensive absolute priority rights to unpaid wage claims.

The value creation and cost reduction theories, however, would suggest any reforms be along the lines of the UK or US models. Recall that, under the value creation theory, curtailing the use of secured credit would reduce the overall availability of credit while the cost reduction theory claims that it would increase the cost of credit.[256] Neither outcome is desirable and law and policy makers would need to consider whether the benefits provided to employees under the Canada model outweighed these costs. Depending on the extent of secured credit's positive impact on credit markets, the value creation and cost reduction theories may suggest that the optimal priority rule is the UK or US model. Ultimately, if further research demonstrated that secured credit was a socially beneficial activity, we should exercise caution when introducing restrictions to the priority rights of secured creditors.

VI. V. CONCLUSION

In sum, we lack a unified theory of secured credit. We have sufficient evidence to confidently assert that secured credit results in lower interest rates for borrowers who provide collateral. However, we do not know where this reduction of interest rates comes from and whether secured credit, on balance, generates new wealth. Instead, we have multiple plausible explanations ranging from increased creditor recoveries in the event of default to the prevention of defaults, a redistribution of wealth, and lower screening and monitoring costs. The fact that we have these multiple plausible explanations has policy implications. Secured credit presents difficult policy choices that would be far easier to take a position on with more empirical evidence on the source of interest rate reductions. Specifically, more empirical evidence is needed on the factors that drive

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[256] Armour, *supra* note 17 at 4; Schwartz, *supra* note 2 at 11; Finch, *supra* note 18 at 643; Kripke, *supra* note 7 at 974; Triantis, "Imperfect Information" *supra* note 15 at 251; Buckley, *supra* note 15 at 1425-1426.

market participants to employ secured credit and the effects that such employment has on third parties such as unsecured creditors. Without such empirical evidence, law and policy makers may be settling for choices that are not optimal.