

AN ECONOMIC ANALYSIS  
OF TRANSNATIONAL BANKRUPTCIES

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## **AN ECONOMIC ANALYSIS OF TRANSNATIONAL BANKRUPTCIES**

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### Abstract

This paper analyses the effects of the legal rules governing transnational bankruptcies. We compare a regime of "territoriality" -- in which assets are adjudicated by the jurisdiction in which they are located at the time of the bankruptcy -- with a regime of "universality," in which all assets are adjudicated in a single jurisdiction. Territoriality is shown to generate a distortion in investment patterns that might lead to an inefficient allocation of capital across countries. We also analyze who gains and who loses from territoriality, explain why countries engage in it even though it reduces global welfare, and identify what can be done to achieve universality.

## I. INTRODUCTION

The early 1990s have featured a number of spectacular international insolvencies which have focused attention on the law of transnational bankruptcy. For example, the bankruptcy of the enormous Maxwell Communications Corporation led to bankruptcy filings in both the United States and England. With some \$2 billion at issue, nobody knew how the bankruptcy would be adjudicated.<sup>1</sup> Similarly, the failures of the Bank of Credit and Commerce International<sup>2</sup> and Olympia and York have demonstrated that there is no mechanism in place to deal with the bankruptcy of an insolvent transnational firm.<sup>3</sup> These recent developments are not the first signs that the existing system is inadequate. In the famous 1974 *Herstatt* case, a large West German bank became insolvent and bankruptcy proceedings were filed in both the United States and West Germany. Although a negotiated settlement was eventually reached, it was obvious to all concerned that the existing legal structure offered no equitable solution to the problem presented by the transnational bankruptcy.<sup>4</sup>

The continuing internationalization of commercial dealings demands some form of international bankruptcy procedures. There is a general consensus that the current legal approach

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<sup>1</sup>See Mike Sigal, et al., *The Law and Practice of International Insolvencies, Including a Draft Cross-Border Insolvency Concordat*, in 1994 - 95 ANNUAL SURVEY OF BANKRUPTCY LAW 1, 89 - 95 (1994).

<sup>2</sup>It is estimated that at the time of its bankruptcy, BCCI had approximately \$10 billion in liabilities and \$1 billion in assets. See Hal S. Scott, *Supervision of International Banking Post-BCCI*, 8 Ga. State Univ. L. Rev. 487 (1992).

<sup>3</sup>See E. Bruce Leonard & R. Gordon Marantz, CROSS-BORDER ISSUES BETWEEN THE UNITED STATES AND CANADA, 628 PLI/C 480 (1992) (discussing the Olympia and York insolvency); Richard A. Gitlin & Ronald J. Silverman, *International Insolvency and the Maxwell Communication Corporation Case*, in INTERNATIONAL BANKRUPTCIES: DEVELOPING PRACTICAL STRATEGIES, 628 PLI 7-47 (1992) (discussing the Maxwell insolvency).

<sup>4</sup>See Todd Kraft & Allison Aranson, *Transnational Bankruptcies: Section 304 and Beyond*, 1993 COLUM. BUS. L. REV. 329, 333 - 334. See also Kurt H. Nadelmann, *Rehabilitating International Bankruptcy Law: Lessons Taught by Herstatt and Company*, 52 N.Y.U. L. REV. 1 (1977).

to such insolvencies -- territoriality -- is unsatisfactory.<sup>5</sup> Territoriality, also known in derogatory fashion as the "grab rule," involves the seizure of assets by the courts of the jurisdiction in which those assets are found at the time of the bankruptcy filing. The courts in question then distribute the assets according to local rules. The most popular defense of the grab rule is that it provides benefits to certain parties, especially local creditors who are spared the inconvenience and expense of litigating in a distant forum.<sup>6</sup>

The alternative rule, universalism, favors the settlement of bankruptcy within a single "main" jurisdiction. Other jurisdictions turn the assets of the bankrupt corporation over to this "primary" jurisdiction and the case is dealt with under the latter's laws.<sup>7</sup> The case against the grab rule and in favor of universalism typically points to the reduction in costs associated with a single adjudication and distribution of the bankrupt entity's assets<sup>8</sup> and the increased fairness of such a proceeding.<sup>9</sup>

This paper presents a systematic analysis of the choice between territoriality and

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<sup>5</sup>See, e.g., Jay Westbrook, *Choice of Avoidance Law in Global Insolvencies*, 17 BROOK. J. INT'L L. 499, 516 (1991) ("There is almost unanimous agreement that more international cooperation . . . is required . . .").

<sup>6</sup>"[G]rab rule proceedings yield inequitable results. Creditors appearing before the courts that have grabbed the most assets fare better than creditors generally." Kraft & Aranson, *supra* note 4, at 337.

<sup>7</sup>Universalism and territoriality are, of course, merely the extreme points on a spectrum. Both terms are sometimes used to refer to arrangements that lie between these two poles. See Westbrook, *supra* note 5, at 513-519 (describing territorialism, universalism and variations on these terms).

<sup>8</sup>"Transactional Gain[s] rest[] upon the benefits to local citizens from the increased flow of trade at lower transaction costs that would result from a coherent system of transnational management of default. . . . [T]he increased predictability of the results of default would significantly reduce the costs of borrowing. . . ." Jay Westbrook, *Theory and Practice in Global Insolvencies: Choice of Law and Choice of Forum*, 65 AM. BANKR. L.J. 457, 466 (1991).

<sup>9</sup>"[I]t is fair to say that the primary effect of the Grab Rule is to protect the primacy of local procedures and local law, with local creditors and sophisticated multinationals sharing significant practical advantages as a result." Westbrook, *supra* note 5, at 514.

universality. We demonstrate that the choice of legal regime not only affects the distribution of assets when there is a bankruptcy, but also has an ex ante effect on the allocation of capital. More specifically, territoriality leads to a distortion of the capital allocation decision while universality avoids the distortion and leads to a more efficient allocation of capital. This ex ante perspective has, until now, been missing from the debate on transnational bankruptcies. The existing literature focuses almost exclusively on the ex post impact of the grab rule on local creditors.<sup>10</sup>

The paper demonstrates that the efficiency cost of the grab rule may be much greater than has previously been realized. In addition to the often-discussed costs of uncertainty and the costs of multiple adjudications, a rule which systematically favors some creditors over others ex post can lead to inefficient investment. Rules designed to protect the interests of local creditors in the adjudication of bankruptcies may have harmful results on the allocation of capital across countries by causing sub-optimal investment by multinational firms. Because territorial rules make the outcome of a bankruptcy (from the point of view of a creditor) depend on the distribution of debt and assets across countries, the interest rate demanded by creditors in exchange for loans will depend on that distribution. By borrowing strategically, firms with existing debt are able to use such territorialist legislation to confer senior status on new creditors, who will therefore offer an interest rate discount. This will come at the expense of old creditors

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<sup>10</sup>It is worth noting that the current debate dealing with domestic bankruptcies has recognized the importance of ex ante analysis and has shifted to focus on it. See, e.g., Lucian A. Bebchuk, *The Effects of Chapter 11 and Debt Renegotiation on Ex Ante Corporate Decisions*, HARVARD LAW SCHOOL PROGRAM IN LAW AND ECONOMICS DISCUSSION PAPER SERIES, No. 104 (1994); Lucian A. Bebchuk & Robert C. Picker, *Bankruptcy Rules, Managerial Entrenchment, and Firm-Specific Human Capital*, CHICAGO WORKING PAPER IN LAW & ECONOMICS, No. 16 (2d Series); Douglas G. Baird, *The Uneasy Case for Corporate Reorganizations*, 15 J. LEG. STUD. 127 (1986).

who are already committed to a particular interest rate.<sup>11</sup> Firms will, in some cases, choose not to invest in the country offering the greatest return on investment, accepting a lower return in exchange for a lower interest rate on loans. This strategic investment will generate a deadweight loss for society.

We also identify who stands to gain and who stands to lose from territoriality. Contrary to what is often claimed, territoriality will not benefit a country's creditors as long as domestic and foreign lenders adjust the terms of their loans in light of the legal regime in place.<sup>12</sup> If it is known that local creditors will have an advantage in bankruptcy, those lenders will be willing to accept a lower interest rate while foreign lenders will demand a higher interest rate.<sup>13</sup> Nor will local creditors be able to lend more due to these lower rates -- the borrower will be indifferent between local and foreign credit because any interest rate gains it gets from local creditors will be exactly offset by increases in the interest rate of foreign creditors.<sup>14</sup> The average cost of capital to the firm will be independent of the composition of the borrowing.

Our results show, however, that a territorialist country can benefit from territorialism if we assume that investment carries with it positive spillovers such as employment, technology,

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<sup>11</sup>If the old creditors anticipate this strategic borrowing, they may charge a higher interest rate *ex ante*. This will not affect our results. We assume that fully contingent contracts are not possible due to informational problems. See *infra* Part VI.

<sup>12</sup>In this paper we focus on voluntary creditors. Involuntary creditors (e.g., tort claimants) are not able to adjust to the legal regime. For this reason, local involuntary creditors may benefit from territorialism.

<sup>13</sup>It need not be the interest rate that adjusts to the legal regime, creditors could also change the other terms of the loan. For simplicity, however, we will focus on the interest rate.

<sup>14</sup>In other words, the interest rate offered by local creditors is a function of the proportion of total assets acquired through a foreign loan and the interest rate offered by foreign creditors is a function of the proportion of assets acquired through a local loan. The relationship between these interest rates is such that the average cost of capital for the firm will always be equal to the world rate.

taxes, and so on. The losers -- the ones who pay for the benefits gained by the territorialist country and the dead weight loss that is generated -- are foreign firms.

In light of the above finding, we are able to draw certain conclusions about the "political economy" that is at work. Territorialism is inefficient and reduces global welfare, but each country, acting individually, has an incentive to adopt a territorialist regime. This highlights the need for a reciprocity requirement or, ideally, international treaties on the subject.<sup>15</sup>

The paper is organized as follows. In the following section, we briefly examine the U.S. Bankruptcy Code and American case law as they apply to transnational bankruptcies. In Section III, we present a simple numerical example in order to establish the intuition underlying the paper. In Section IV, we set out the general framework to be used throughout the paper, which will be analyzed for the cases of universalism in Section IV.A, unilateral territorialism in Section IV.B, and bilateral territorialism in Section IV.C. In Section V, we will discuss some of the implications of the analysis. In Section VI, we consider the effects of allowing endogenous borrowing in the initial period, and in Section VII we offer some concluding comments.<sup>16</sup>

## II. CURRENT AMERICAN LAW

Before proceeding with the analysis, it is important to clarify where the law stands on the issue of transnational bankruptcies. While the analysis and conclusions of this paper have more

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<sup>15</sup>A treaty would clearly be the best solution to the problem discussed in the paper, but for various reasons, attempts at establishing multilateral treaties on the subject have not fared well. For a discussion of the challenges facing attempts at treaty writing, see Thomas M. Gaa, *Harmonization of International Bankruptcy Law and Practice: Is it Necessary? Is it Possible?*, 27 INT. LAW. 881, 903 - 906 (1993).

<sup>16</sup>This paper focuses only on the distortions created by territoriality. These distortions have not been identified by the literature on transnational bankruptcies. For a comprehensive argument in favor of universalism, see Andrew T. Guzmán, *A Better Argument for Universalism in Transnational Bankruptcies*, (Harvard Law and Economics Discussion paper Series) (forthcoming 1996).

general applicability, the laws of the United States will be used as a concrete example of an existing legal regime.<sup>17</sup> This is done in part because the American system is the one with which we are most familiar, and in part because it is generally acknowledged that "American statutory law goes further than the law of any other industrialized nation in authorizing cooperation with foreign insolvency regimes."<sup>18</sup> The American situation, therefore, can be considered the high-water mark of international cooperation in the area of bankruptcy.

The extraterritorial application of U.S. law is clear. In the eyes of the United States, the jurisdiction of the bankruptcy court, and the estate created by the filing of a bankruptcy proceeding, extend to all assets worldwide.<sup>19</sup> More important, however, is the willingness of the United States to relinquish control over assets located in the United States. The true test of universality is the willingness of the court to turn assets over to the court administering the "main" bankruptcy proceeding.<sup>20</sup> We will, therefore, focus on the extent to which American courts permit the turnover of assets to foreign bankruptcy courts.

Refusal to turn assets over to foreign courts will benefit local creditors *ex post*. Although any party in interest can object to a petition for the turnover of assets, it is the interests of local

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<sup>17</sup>For a discussion of foreign rules, see Timothy E. Powers & Rona R. Mears, *Protecting a U.S. Debtor's Assets in International Bankruptcy: A Survey and Proposal for Reciprocity*, in 1 INTERNATIONAL LOAN WORKOUTS AND BANKRUPTCIES 27 (Richard A. Gitlin & Rona R. Mears, eds., 1989).

<sup>18</sup>Douglass G. Boshkoff, *Some Gloomy Thought Concerning Cross-Border Insolvencies*, 72 WASH. U. L.Q. 931, 932 (1994).

<sup>19</sup>11 U.S.C. § 541(a) (1994) creates an estate which extends to all assets "wherever located and by whomever held." This has long been understood as to include assets abroad.

<sup>20</sup>Although it may be possible, in principle, to refuse turnover without favoring local creditors, in practice the two are closely related for two reasons. First, it is local creditors and fast-moving multinational creditors who are most likely to react quickly to the troubles of an insolvent firm by seeking a security interest, foreclosing, and so on, leaving them in a better position to litigate the actual bankruptcy. Second, it is, of course, local creditors that are able to object to a turnover order if it is not in their interest. In this sense, they will have the option of keeping the assets in the U.S. and will use that option only when it is to their advantage.

creditors that are primarily protected by the statute.<sup>21</sup> Note also that because courts are unlikely to prevent turnover in order to protect a foreign creditor, local creditors have the option of objecting to the petition if it is not in their interest or, if they prefer to litigate under the rules of the foreign jurisdiction, they can opt to remain silent and allow the turnover to take place.

Transnational bankruptcies are covered by Section 304 of the United States Bankruptcy Code.<sup>22</sup> The following brief summary of the law surrounding § 304 demonstrates that there remains considerable inconsistency in the application of the relevant statute. Courts may eventually achieve greater coherence in their rulings, but if they do, it is unclear whether this coherence will move us toward greater territoriality or greater universalism. The literature on transnational bankruptcy must, therefore, seek to identify the costs and benefits of each approach.

Section 304 of the United States Bankruptcy Code was introduced in the Bankruptcy Reform Act of 1978.<sup>23</sup> The statute allows a foreign representative to begin ancillary (i.e., secondary) proceedings in the United States by filing a petition with the bankruptcy court. Section 304(b) gives the court the authority to:

- (1) enjoin the commencement or continuation of
  - (A) any action against
    - (i) a debtor with respect to property involved in such foreign proceeding;
    - (ii) such property; or
  - (B) the enforcement of any judgment against the debtor with respect to such property....
- (2) order turnover of the property of such estate, or the proceeds of such property...; or

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<sup>21</sup>Section 304(c)(3) instruct the court to consider "protection of claim holders in the United States against prejudice and inconvenience in the processing of claims in such foreign proceedings."

<sup>22</sup>11 U.S.C. § 304 (1994).

<sup>23</sup>Bankruptcy Reform Act of 1978, Pub. L. No. 95-598, 92 Stat 2549.

(3) order other appropriate relief.<sup>24</sup>

Section 304(c) lists the factors to be considered in evaluating a petition for ancillary relief:

[T]he court shall be guided by what will best assure an economical and expeditious administration of such estate, consistent with--

- (1) just treatment of all holders of claims against or interests in such estate;
- (2) protection of claim holders in the United States against prejudice and inconvenience in the processing of claims in such foreign proceeding;
- (3) prevention of preferential or fraudulent dispositions of property of such estate;
- (4) distribution of proceeds of such estate substantially in accordance with the order prescribed by this title;
- (5) comity;
- (6) if appropriate, the provision of an opportunity for a fresh start for the individual that such foreign proceeding concerns.<sup>25</sup>

A local creditor capable of defeating a § 304 petition by appealing to these factors is essentially given the choice of litigating under the law of the foreign jurisdiction or opposing the § 304 petition and litigating under American law. In other words, the local creditors will be in a position to choose the law more favorable to themselves.<sup>26</sup>

Courts have adopted two general attitudes toward § 304. One emphasizes comity<sup>27</sup> and

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<sup>24</sup>11 U.S.C. § 304(b) (1994).

<sup>25</sup>11 U.S.C. § 304(c) (1994).

<sup>26</sup>The law is, of course, available to all parties to the transaction, but American creditors are much more likely to prefer adjudication in the U.S. and are more likely to be protected by § 304(c). For example, they are more likely to be "claim holders in the United States."

<sup>27</sup>11 U.S.C. § 304(c)(5). The classic definition of comity is provided in *Hilton v. Guyot*, 159 U.S. 113 (1895): 'Comity,' in the legal sense is neither a matter of absolute obligation, on the one hand, nor of mere courtesy and good will, upon the other. But it is the recognition which one nation allows within its territory to the legislative, executive or judicial acts of another nation, having due regard both to international duty and convenience, and to the rights of its own citizens or of other persons who are under the protection of its law.

*Id.* at 163-64.

tends to apply § 304 fairly liberally. The second emphasizes other factors, especially § 304(c)(2)-(4), and refuses § 304 petitions more frequently.

The first comprehensive case law discussion of § 304 came in *In re Culmer*.<sup>28</sup> In this case, a Bahamian corporation, BAOL, entered voluntary winding up procedures under Bahamian law and the liquidators subsequently filed a § 304 petition, seeking the turnover of assets located in the United States to Bahamian courts.<sup>29</sup>

The court pointed out that all of the factors in § 304(c) have traditionally been used in the consideration of comity.<sup>30</sup> With this fact in mind, the court enunciated the following standard: "[c]omity is to be accorded a decision of a foreign court as long as that court is of a competent jurisdiction and as long as the laws and public policy of the forum state are not violated."<sup>31</sup> The court stated that it would look to factors other than comity only "to determine whether the evidence presented as to Bahamian law indicates that its application therein would be wicked, immoral, or violate American law and public policy."<sup>32</sup> In other words, the court in *Culmer* appeared willing to grant a § 304 petition subject only to a narrow public policy exception. In particular, it is not necessary for the applicable law or the rights of the American

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<sup>28</sup> 25 B.R. 621 (Bankr. S.D.N.Y. 1982).

<sup>29</sup>See *id.* at 623-25.

<sup>30</sup>*Id.* at 629.

<sup>31</sup>*Id.* (citing *Hilton v. Guyot*, 159 U.S. 113, 202-03 (1895)).

<sup>32</sup>*Id.* (quoting *Cornfeld v. Investors Overseas Services, Ltd.*, 471 F.Supp. 1255 (S.D.N.Y. 1979) which in turn quotes *Intercontinental Hotels Corp. v. Golden*, 15 N.Y.2d 9, 13 (1964)).

petitioner to be identical in the two proceedings.<sup>33</sup>

In *In re Papeleras Reunidas, S.A.*,<sup>34</sup> the court took a different approach to § 304 petitions. Rather than using the factors other than comity to determine if the foreign law was "wicked, immoral, or violate[s] American law and public policy,"<sup>35</sup> the court chose to "equally consider all of the variables of § 304(c) in determining the appropriate relief."<sup>36</sup> The court therefore considered each of the § 304(c) factors individually and conducted an informal balancing test.<sup>37</sup> Using this higher standard, *Papeleras* rejected the § 304 petition.<sup>38</sup>

For further evidence of the conflict between these different methods of interpretation, compare *Culmer*<sup>39</sup> and *In re Toga*.<sup>40</sup> In *Culmer*, the court states in dicta that "it is well-settled that the liquidation laws of Canada, which are virtually the same as those of the Bahamas, are to be given effect under principles of comity."<sup>41</sup> In *Toga*, which was decided only a year after *Culmer*, the court refused to turnover funds to Canadian courts. Rather, it sought to protect an American corporation which was a lien creditor under American law but that "would most likely

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<sup>33</sup>Other cases that emphasize comity in this way include *Metzeler v. Bouchard transportation Co. (In re Uni-Petrol Gesellschaft fuer Mineralolprodukte)*, 78 B.R. 674, 677 (Bankr. S.D.N.Y. 1987); and *In re Gee* 53 B.R. 891 (Bankr. S.D.N.Y. 1985).

<sup>34</sup> 92 B.R. 584 (Bankr E.D.N.Y. 1988).

<sup>35</sup>*In re Culmer*, 25 B.R. at 629.

<sup>36</sup>*In re Papeleras Reunidas, S.A.*, 92 B.R. at 590.

<sup>37</sup>*Id.* at 589-95.

<sup>38</sup>Other cases that do not emphasize comity include *Interpool Ltd. v. Certain Freights of M/V Venture Star*, 102 B.R. 373 (Bankr. D.N.J. 1988) and *In re Toga Mfg. Ltd.*, 28 B.R. 165 (Bankr. E.D. Mich. 1983).

<sup>39</sup>25 B.R. 621 (Bankr. S.D.N.Y. 1982).

<sup>40</sup> 28 B.R. 165 (Bankr. E.D. Mich. 1983).

<sup>41</sup>*In re Culmer*, 25 B.R. 631.

be considered an ordinary creditor" under Canadian law.<sup>42</sup> Based on this difference in substantive law, the court ruled that Canadian law is not "substantially in accordance with the order prescribed by the title."<sup>43</sup> Even if it is true, as suggested in the decision, that the American corporation in *Toga* would be treated differently under Canadian law, it cannot be said that Canadian law is "inherently wicked, immoral, or violates American law and policy" as required by *Culmer*.<sup>44</sup>

One possible reason for the inconsistency in § 304 and its application may be a poor understanding of the impact the law has. This paper focuses on the ex ante capital allocation effects of the law. A more careful examination of the impact of territoriality demonstrates that it is, indeed, harmful and efforts are needed to move us toward a more universalist regime.

### III. A SIMPLE EXAMPLE

The basic intuition of the model can be developed through a simple numerical example. Imagine two countries, say the United States and Britain, and suppose that the U.S. has a territorialist regime in place while Britain has a universalist regime. Finally, assume the existence of a firm with \$100 million of existing British debt in year 0, and an interest rate of  $r$ .<sup>45</sup> The creditors to whom the firm is indebted will be referred to as the "old" or  $t=0$  creditors. The domicile of the firm is not important for our purposes -- all that matters is the location of

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<sup>42</sup>*In re Toga*, 28 B.R. at 168.

<sup>43</sup>*Id.* at 169.

<sup>44</sup>*In re Culmer*, 25 B.R. at 621.

<sup>45</sup>The firm also has assets which we can assume are located in Britain.

its  $t=0$  creditors. It will be demonstrated that the decisions of value maximizing firms with existing British debt will be distorted in favor of investing in the United States.

Suppose that the firm wishes to make an investment but must take on another \$100 million in debt in order to do so. The firm can invest in either the United States or Britain and can also borrow from lenders in either country. In year 1, the firm borrows \$100 million from either British or American creditors in order to finance the project. These creditors will be referred to as the "new" or  $t=1$  creditors. The firm then invests that \$100 million in either the United States or Britain.

The firm's business, however, is not without risk. In year 2, the investment "matures" and if the investment is successful (as is assumed to occur with probability 0.8), the firm receives \$215 million (before paying its debts) if it chose to invest in the United States and \$225 million if it invested in Britain. If, however, the investment is unsuccessful, the firm recovers only \$100 million and, being unable to pay its creditors, must file for bankruptcy. It is assumed that the payoff to the firm is physically located where the investment took place. Imagine that production and, therefore, the firm's output (which represents its payoff) is located where the  $t=1$  investment takes place.<sup>46</sup> After year two, the firm's assets are assumed to have no value.

If both countries have bankruptcy laws which treat all creditors equally then the old and new creditors will each get \$50 million in the bankruptcy settlement. Knowing that creditors will each get a pro rata share in the event of bankruptcy, both American and British lenders will be

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<sup>46</sup>Alternatively, one can imagine that there is also a stock of senior debt in Britain that accounts for the assets located there. In this case, the figures given in this example represent unsecured assets only.

prepared to offer the firm the same interest rate at  $t=1$ .<sup>47</sup> The firm will be indifferent between creditors, and the investment decision will depend entirely on the return to the investment, causing the firm to choose to invest in Britain since it can earn \$225 million there, and only \$215 million in America. This is the efficient outcome because the assets are invested where they will be the most productive.

Suppose, however, that the United States has laws which favor American creditors in the event of bankruptcy. For clarity of presentation, we assume that in the event of bankruptcy the law requires that local (i.e. American) creditors be paid in full before any of the assets located in the United States can be used to satisfy the claims of foreign creditors.<sup>48</sup> If the firm borrows and invests in the United States, and if the firm goes bankrupt, the American creditor will be paid the full \$100 million while the  $t=0$  (British) creditor will receive nothing. In other words, the American creditor's return in the event of bankruptcy is higher than it is under the universalism case above. Since we have assumed competitive credit markets, the lender must receive exactly the world rate of interest in expectation, and a higher payoff in bankruptcy implies that the contracted interest rate will be lower. The American creditor will, therefore, offer a rate of interest that is below the rate demanded under universalism. In our example, the American creditor will demand a rate of 6%.<sup>49</sup>

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<sup>47</sup>Capital markets are assumed to be competitive, so lenders always receive the world rate in expectation. In order to arrive at the interest rate figures in this example, we have assumed an underlying world interest rate of 4.8%. In the universalism case, both British and American creditors would demand 18.5% at  $t=1$  to compensate them for the risk.

<sup>48</sup>This is, of course, an extreme version of territoriality. It is used in order to make the presentation clearer. More moderate territorialist measures will yield the same qualitative results.

<sup>49</sup>If the firm invests in the United States, but borrows from Britain, creditors will demand the same rate as they would under universalism, 18.5%.

If the firm invests in universalist Britain at  $t=1$ , creditors will all receive a pro rata share of assets in the event of bankruptcy. Prospective  $t=1$  creditors from Britain and the United States, therefore, will offer the same interest rate as under universalism, 18.5%.

In choosing its investment location, the firm will take account of the effect of its choice on the available interest rate. It will invest in the country in which the expected return to capital is highest, *net of interest payments*. In this example, the firm will invest in the United States, where it can earn \$215 on the investment and pay only  $\$6+r$  million in interest -- leaving it with a  $\$9-r$  million net return. In Britain, on the other hand, the firm would receive \$225 million from the investment, but would have to pay  $\$18.5+r$  million in interest charges, leaving it with a  $\$6.5-r$  million net return on the borrowed capital.<sup>50</sup>

The territorialist legislation, therefore, has led to a sub-optimal investment decision. Instead of earning \$25 million in Britain, the borrowed assets earn only \$15 million in the United States. What the firm perceives as an interest rate "savings" due to investment in America is actually a transfer from the old British creditor to the firm. Because we will assume rational expectations on the part of the original creditors (and all other actors) it is the firm that will ultimately pay the cost generated by the territorialist legislation. The firm, therefore, would be better off if it could "opt out" of the territorialist legislation and commit to a single forum for adjudication.<sup>51</sup>

The rest of this paper will develop the intuitions of this example in a more general

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<sup>50</sup>These figures represent the return to the firm in the good state. In the bad state, the firm receives nothing regardless of the location decision.

<sup>51</sup>It will generally not be possible for firms to contract around the territorialist legislation because choice of law and choice of forum clauses are not usually respected in bankruptcy. *See also infra* Part V.E.

framework and with more rigorous attention to the assumptions involved.

#### IV. THE MODEL

##### A. Framework of analysis

In order to explore the implications of favoring local creditors, we will use a two period, two country model. The countries will be labelled A and B (and can be thought of as America and Britain). The firm begins with an exogenous debt structure which, for simplicity, will be assumed to consist of a single creditor in one of the two countries. The firm may also have some initial assets.<sup>52</sup> It is assumed throughout that all agents are risk neutral and that capital markets are competitive so that lenders will receive exactly the risk-adjusted world rate of interest in expectation. The initial creditor will accordingly be assumed to have chosen an interest rate such that, at  $t=0$ , she receives the world rate in expectation. This is equivalent to allowing another period ( $t=0$ ) in the model in which the firm borrows from this initial creditor.<sup>53</sup> In Part VI, we will also discuss the effect of allowing endogenous determination of this initial debt. We denote the initial debt  $D^0$  and refer to the initial creditor as the  $t=0$  creditor.<sup>54</sup>

While allowing endogenous determination of initial debt is obviously a more satisfying

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<sup>52</sup>These initial assets are assumed to have no value at the end of  $t=2$ . If they had some value at  $t=2$ , we would have to take into account the rules governing the distribution of these assets in the event of bankruptcy.

<sup>53</sup>While it is true that the  $t=0$  creditor can be "stolen from" at  $t=1$ , she will take this into account when the initial loan is made. The  $t=0$  creditor, therefore, will demand an interest rate such that she receives the world interest rate in expectation *given the knowledge that the firm will try to take advantage of her at  $t=1$ .*

<sup>54</sup>Throughout the paper, superscripts will be used to denote time and subscripts will be used to identify countries.

approach from a modelling perspective, it is probably more realistic to assume an exogenous determination of that debt. Most multinational corporations begin as purely domestic firms with purely domestic creditors. A small percentage of these firms eventually become multinational enterprises. Since there is a cost associated with borrowing abroad that does not exist when one borrows at home -- where one is familiar with local institutions and legal requirements -- it is rational for firms to simply borrow locally, despite the distortion that this paper describes. For existing multinational enterprises, the story is similar. Before knowing what form an investment opportunity will take, a firm cannot hope to invest optimally to avoid future distortion when such an opportunity arises.

At  $t=1$ , the firm has an investment opportunity which it can pursue in either country A or country B.<sup>55</sup> In order to respond to this opportunity, the firm borrows an amount,  $D^1$ , from either a lender in country A or a lender in country B.<sup>56</sup> Without loss of generality, we assume that the firm will do all of its borrowing from the same lender.<sup>57</sup> The firm also chooses where to locate its assets -- i.e., where to invest -- and is able to commit to an investment location when it borrows. This final assumption is critical. When the  $t=1$  debt is taken on, the investment location must be known. The nature of the investment is assumed to be such that all investment must take place in a single country.<sup>58</sup>

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<sup>55</sup>Imagine, for example, that the firm intends to build an additional manufacturing plant, and can do so in either country.

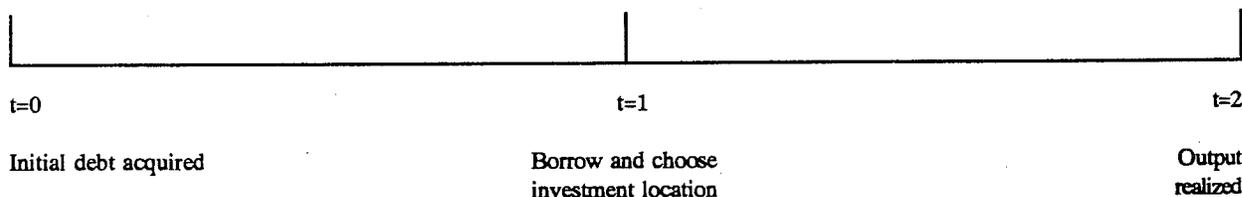
<sup>56</sup>These  $t=1$  creditors and the  $t=0$  creditor are assumed to be the only creditors. Thus, all creditors are voluntary.

<sup>57</sup>Only in some special cases will the firm be indifferent to the proportion borrowed from each lender at  $t=1$ . In all other cases, the firm will choose to do all of its borrowing from the lender offering the lower rate. The firm will never prefer to borrow from more than one lender.

<sup>58</sup>This assumption is not required, but it simplifies the model.

At  $t=2$  output is realized. If the project goes well, as occurs with probability  $\rho$ , the firm receives a payoff of  $G_A$  if the investment took place in A and  $G_B$  if the investment took place in B.  $G_i$ ,  $i=A,B$ , is defined such that it is a gross rate of return, calculated before interest payments. In the good state, the firm is assumed to be able to pay off its creditors in full. If the project goes badly, however, as occurs with probability  $1-\rho$ , the firm cannot meet its credit obligations and goes bankrupt. The remaining assets,  $W$ , are divided according to the law of the country in which the investment took place. We will consider alternative rules governing the division of  $W$ .

FIGURE 1



We will approach the question of capital allocation from an efficiency perspective.<sup>59</sup> From that perspective, it is desirable that firm decisions regarding the allocation of capital be made based on the total return to capital. Differences between the total return to capital and the return realized by the firm have the potential to generate inefficiencies.

We will first consider the case in which neither country has territorialist laws in place -- i.e., both countries treat all creditors equally, regardless of nationality. We will demonstrate that the first-best outcome is attainable under universalism. We will then consider the case in which

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<sup>59</sup>Given that capital markets are efficient and all creditors get the world rate in expectation, the perspective of efficiency is equivalent to an ex ante perspective.

only one country is territorialist, demonstrating that investment may be influenced by the territorialist laws. Finally, we will examine the case in which both countries are territorialist. We will demonstrate that territorialist measures, when adopted multilaterally, will lead to a distortion of the investment decision.

### B. Universalism (First-Best)

Under a universalist regime, the firm will make its investment decision based only on the expected return of the project. Since all creditors are treated equally in bankruptcy, they all offer the same rate of interest at  $t=1$ , regardless of the location of the investment. The firm will be indifferent between creditors and will simply invest in the country in which productivity will be highest. The firm, therefore, invests in country A (B) if and only if  $G_A > G_B$  ( $G_A < G_B$ ). This is the first-best or efficient outcome.

Formally, we can express this result in terms of the participation constraint facing lenders. In a universalist world, the participation constraint for all lenders is:

$$\rho R_i + (1-\rho) \frac{W}{D^0 + D^1} = R^* \quad i=A,B. \quad (1)$$

Where  $R_i$  represents the contracted interest rate between the firm and the lender in country  $i$   $\{i=A,B\}$ ;  $R^*$  represents the exogenous world interest rate;  $D^j$  represents the debt acquired at  $t=j$   $\{j=0,1\}$ ; and  $W$  represents the dollar value of assets remaining for division among the creditors in the event of bankruptcy.<sup>60</sup>

Equation (1) states that the lender must receive, in expectation, a return equal to the world

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<sup>60</sup>Interest rates are expressed as gross rates.

rate of interest. The first term in equation (1) represents the payoff to the lender in the good state multiplied by  $\rho$ , the probability of being in that state. The second term represents the payoff to the lender in the bad state, in which the firm goes bankrupt, multiplied by  $1-\rho$ , the likelihood of such an outcome. In the event of bankruptcy, each creditor receives a pro rata share of the assets. The assets are represented by  $W$  while the debt is equal to  $D^0+D^1$ . For each dollar invested, the creditor therefore receives a gross return of  $W/(D^0+D^1)$ .

### C. Unilateral Territoriality

We begin the analysis of territorial laws with the case of unilateral territorialism. It is assumed without loss of generality that country A adopts a territorialist regime while country B maintains a universalist regime. Under A's territorialist legislation, foreign creditors are paid only after local creditors are paid in full. With respect to assets located in A, the creditors from B essentially become junior creditors relative to those from A.

The main result we show in this section is that unilateral territoriality leads to a distortion of the investment decisions made by firms whose initial debt is from B. This distortion will favor investment in the territorialist country, A. While this may be desirable from the point of view of the territorialist state, it is inefficient from a global point of view, and harmful to the firm.

A secondary result concerns lending patterns. We will be shown that unilateral territoriality leads to increased borrowing from creditors in the territorialist state. Because territorial rules protect local creditors *ex post*, those creditors will, all else equal, offer a lower interest rate *ex ante* and firms will be more likely to choose to borrow from them. In a model

with competitive capital markets, this has no welfare effects, but in a model with rents to lending, territoriality would, in fact, benefit local creditors.

To solve the model, we will proceed backwards, starting with  $t=2$ . At  $t=2$ , the firm receives  $G_A$  or  $G_B$  (depending on where it invested), with probability  $\rho$ . With probability  $1-\rho$  the firm gets  $W$ , which is defined as the dollar value of assets to be distributed in bankruptcy.<sup>61</sup> In order to make the presentation clearer, we will assume that  $W < D^1$ . Under this assumption, if the new creditor is "senior" to the old creditor, the former receives all the assets and the latter receives nothing. This assumption is not essential -- the same results can be obtained without it, but at a cost of greater complexity.<sup>62</sup>

Consider first the effect of territorialism in A on the interest rates offered by creditors when the firm's existing debt is from B. If the firm decides to invest and borrow in A, the new creditor will be treated as senior relative to the existing creditor in B. The creditor will therefore be willing to offer an interest rate *discount*. We can write the lending constraint for the lender from A as:

$$\rho R_A + (1-\rho)\frac{W}{D^1} = R^* \quad i=A,B. \quad (2)$$

Because the creditor from A is given priority in the distribution of assets, her return in the event of bankruptcy is higher than it is in the universalist case. Comparing equation (1) and

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<sup>61</sup>In principle,  $W$  could take on a different value, depending on the country in which the firm invests. Assuming that it is the same in the two countries keeps the model simpler without affecting the results.

<sup>62</sup>The critical part of the analysis is that the distribution of assets favors one creditor over another. When  $W > D^1$ , this favoritism still exists but the actual derivation of the distortion is made more complex.

equation (2), it is clear that the interest rate required to satisfy the constraint is lower in equation (2) than in equation (1) -- this is the source of the interest rate discount.

If the firm chooses to borrow from B and invest in A, the new creditor will receive a pro rata share in bankruptcy, just as she would in a universalist world. In order to secure the world rate of return, therefore, the creditor will demand the same interest rate as she would under universalism -- equation (1) applies. From the firm's point of view, it is obviously preferable to borrow from the creditor offering the lowest rate of interest, so a creditor with initial debt in B, planning to invest in A, will borrow from A.

Note that the above distortion of the interest rate only occurs when the initial debt is from the universalist country and the investment is to be in the territorialist country. If the firm planned to invest in B, the source of debt would not matter because B has a universalist regime, meaning that the assets would be distributed pro rata to all creditors. Similarly, if the initial debt were held by creditors in A, and if the investment were to be made in A, the firm could secure debt at the universalist rate from creditors in A. Potential creditors in B would demand an interest rate *premium* to account for the fact that they would be junior relative to the existing creditors. The firm, of course, would always borrow from creditors in A in order to avoid the higher rate demanded by those in B -- leaving the firm with the same rate as under a universalist regime.

In summary, if the assets are to be invested in universalist B, creditors from both A and B offer a rate of interest equal to the universalist rate given by (1). If the assets are to be located in A, creditors from A will offer a lower interest rate than those from B. In this second case, if the  $t=0$  debt is owed to creditors from A,  $t=1$  creditors from A will offer the universalist rate and

creditors in B will demand an interest rate premium. If, however, the  $t=0$  debt is owed to a creditor in B, potential  $t=1$  creditors in B will demand the universalist rate of equation (1) and creditors from A will offer an interest discount given by equation (2). These results are summarized in Table I. These interest rate distortions ensure that whenever the assets are to be located in A, the firm will borrow from a creditor in A. When the assets are to be placed in B, the firm is indifferent to the choice of creditor.

**TABLE I**

<b>t=0 Creditor</b>	<b>Location of Assets</b>	<b>Interest Rate</b>
A or B	B	$R_A=R_B=R_{NP}$
A	A	$R_{NP}=R_A < R_B$
B	A	$R_A < R_B=R_{NP}$

$R_{NP}$  represents the universalist rate of interest given by (1)

Having considered the borrowing decision, given the investment decision, we now must consider how the firm chooses the location of its assets. Under the first-best universalist regime, the only factors influencing the firm's investment decision are the relative sizes of  $G_A$  and  $G_B$ . When country A is territorialist, however, the firm must consider more than just these returns. If the firm's  $t=0$  debt is from B and it plans to invest in A, it will face the interest rate given by equation (2), otherwise, it will face the interest rate given by equation (1). If the firm does invest in A (assuming that it has existing debt in B), it can capture for

itself the difference between these two interest rates.

The firm, of course, is interested in its return after interest payments, so it will take into account the difference in interest rates. Letting  $\Delta R$  represent the difference between the interest rate  $R_B$  offered by creditors in B (as given by (1)) and the interest rate  $R_A$  offered by creditors in A (given by (2)), the firm will invest in A if and only if:<sup>63</sup>

$$G_A + \Delta R \geq G_B \quad (3)$$

In other words, the firm invests in A if the return to the investment plus the interest rate savings exceed the return in B. If  $\Delta R \neq 0$ , then there will be values of  $G_A$  and  $G_B$  for which the firm will invest in the country with the lower return to capital in order to take advantage of the interest rate savings. In other words, for certain values of  $G_A$ ,  $G_B$ , and  $\Delta R$ , capital will be allocated sub-optimally as a direct result of the territorialism.

The value of  $\Delta R$  can be calculated by subtracting equation (2) from equation (1). The result is:<sup>64</sup>

$$\Delta R = \frac{(1-\rho)W}{\rho} \left[ \frac{D^0}{D^1(D^0+D^1)} \right] \geq 0 \quad (4)$$

For any positive stock of initial debt,  $D^0$ , it is clear that there is a distortion ( $\Delta R \neq 0$ )

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<sup>63</sup>Note that if the initial debt is from A, equation (1) applies to both  $L_A$  and  $L_B$ , so  $\Delta R=0$ .

<sup>64</sup> $\Delta R$  is positive because we have assumed that A is territorialist while B is not. If B is territorialist and A is not,  $\Delta R$  will be negative.

that will encourage the firm to invest in A and borrow from creditors in A even if that country does not offer the greatest return to capital. The territorialism of A will induce some firms to invest in A, despite the fact that it would be more efficient for them to invest in B.

By assuming that creditors will receive the world rate in expectation, we have assumed that the lower return due to the distortion of investment decisions will be borne by the firm rather than the creditors. The firm achieves a lower interest rate at  $t=1$ , but will have paid a higher rate at  $t=0$ . The interest rate discount in the territorialist country and the premium in the other country will leave the firm paying the world rate in expectation over all. It is the firm that receives a lower return when it invests sub-optimally. This implies that the firm would be better off at  $t=0$  under a universalist regime.

Firms with initial debt in A are not affected by the distortion. Firms with initial debt in B, however, do face the distortion. In some instances, these latter firms will invest in A despite the fact that their capital would be more productive in B. A's territoriality will therefore attract additional capital and, with it, an increased demand for borrowing from creditors in A.

Note that one implication of this model is that unilateral territoriality is a form of subsidy to encourage domestic firms from B to become multinationals by investing in A. Imagine a large number of B's local firms borrowing at  $t=0$  and assume that only a small proportion of those will become multinationals at  $t=1$ . Finally, suppose that while the probability of becoming a multinational is common knowledge, neither the lender nor the borrowers at  $t=0$  can distinguish between those that will become multinationals and those that will not. Those that do become multinationals will make their creditors in B junior to their

$t=1$  creditors in A. To be compensated for this loss,  $t=0$  lenders will demand a higher rate of interest from all firms -- such that they receive the world rate in expectation. This interest rate will be less than the rate that would be charged to a firm that the creditor knew would later invest abroad since most borrowers will never do so. Those that do become multinationals will, therefore, benefit from the lower interest rate offered by lenders in A, while those that do not will suffer due to the higher interest rate in B caused by the risk of firms becoming multinationals. The territoriality creates a subsidy for firms that go multinational, paid by those in B that do not.<sup>65</sup>

#### D. Both Countries Territorialist

We now examine the case in which both countries favor their own creditors in the event of bankruptcy through laws which require local creditors to be paid in full before foreign creditors receive any compensation. We will show that a firm with debt in one country will have its investment decision distorted in favor of the other country.

Consider, without loss of generality, the case in which a firm has initial debt in B.<sup>66</sup> The analysis of the distortion in favor of investment in A is essentially the same as in section C. The distortion is not affected by whether B is territorialist or not. To see that this is true, consider a firm that borrows new debt from A and invests in A. Since A is territorialist and the existing debt is held in B, the new creditor will be senior relative to the old creditor. This

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<sup>65</sup>In Section V.E, we will discuss the possibility of using loan covenants to deal with the inefficiency discussed in this paper.

<sup>66</sup> Because the model is symmetric, the case in which the debt is in A is identical to the case we present. The analogous results can be obtained by reversing the country names in the analysis that follows.

seniority will be reflected in the interest rate just as it was in section C.

If the firm invests in B and B is universalist, section C demonstrates that the new debt will be treated as equal in seniority to the old debt regardless of the location of the new creditor. If, on the other hand, B is territorialist, potential creditors from A will demand an interest rate *premium* to account for the fact that they will be junior in bankruptcy. Creditors in B, however, will not demand such a premium, so the firm will borrow from a creditor in B. Since all creditors are then from B, they will all be treated equally and the new credit will be offered at the universalist rate (which is higher than the discount offered by creditors in A if the firm invests in A.)

The above demonstrates that for firms with existing debt from a creditor in B, territorialism by A will distort investment in favor of A just as it did in the unilateral territorialism case. Neither the existence nor the magnitude of the distortion depend on whether B is territorialist. Territorialism in B simply means that firms with existing debt in A would also have their investment decisions distorted.

Territorialism by a given country, therefore, distorts the decision of firms that have debt from another country. This distortion is generated by the ability of the new creditor to divert some of the risk of lending to the existing creditors. In the unilateral territorialism case, only the decisions of firms with debt in the universalist country are distorted. In contrast, in the bilateral territorialism case, all firms are subject to the distortion.

The bilateral territorialism case is different from the unilateral case in one important respect. When both countries are territorialist, it is not possible for the firm to avoid the distortion through careful choice of its  $t=0$  creditor unless it can anticipate its future

investment opportunities. If the future is uncertain (even if the probability distribution from which future opportunities will be drawn is known) the distortion will remain.

## V. ANALYSIS OF THE DISTORTION AND ITS IMPLICATIONS

### A. The Magnitude of the Distortion

We now consider the effect of each of the variables on the magnitude of the distortion.<sup>67</sup> By differentiating equation (4) it is straightforward to show the following results:

Variable	Marginal Effect on Abs( $\Delta R$ )
$D^0$	+
$D^1$	-
$\rho$	-

An increase in  $D^0$ , the initial debt, will increase the distortion because it decreases the pro rata share available to the  $t=1$  creditor if both creditors are from the same country. In other words, when the firm is confronted with foreign investment opportunities and is holding domestic debt, the distortion is greater when it already has large domestic debt. This result is intuitive: the greater the domestic debt, all else equal, the greater is the local creditors pro

<sup>67</sup>For simplicity (and brevity), we concentrate on the bilateral case only.

rata share of the assets. Territorialism allows the new, foreign creditor to capture these assets in exchange for a lower interest rate. As the amount at stake increases, the interest rate discount grows, generating a larger distortion.

Conversely, greater  $t=1$  borrowing ( $D^1$ ) reduces the distortion because it entitles the lender to a larger pro rata share of the proceeds. All else equal, if a firm with domestic debt borrows a larger sum at  $t=1$ , and borrows it domestically, the  $t=1$  creditor will receive a larger share of the assets in settlement. Foreign creditors will, therefore, be able to offer a relatively small interest rate discount. The advantage of having senior status is reduced as the size of the new debt increases.

Finally, an increase in  $p$ , the investment's probability of success, (i.e., a reduced probability of bankruptcy), lowers the distortion because the lender is paid in full with greater frequency. The "senior" creditor offers a smaller interest rate discount and the "junior" creditor requires a lower interest rate premium in order to receive the world rate in expectation.

#### B. Who Bears the Cost of the Distortion?

We have shown that territoriality leads to inefficient investment decisions. This implies a reduction in global efficiency and, therefore, global welfare. This section will demonstrate that it is foreign firms that are hurt by the territorial policy -- they bear the cost of the inefficiency.

We demonstrated above that territorialism by one country, A, distorts the investment decisions of firms in another country, B. Because we have assumed competitive capital

markets, B's creditors will not be hurt. These creditors will choose a rate of interest ex ante such that they receive the world rate of interest in expectation. While these creditors may win or lose in particular cases ex post, they will be neither better nor worse off ex ante. Any interest rate discount obtained at  $t=1$  amounts to a transfer from the  $t=0$  creditor to the  $t=1$  creditor in the event of bankruptcy. The  $t=0$  creditor will take this into account and charge an interest rate that, at  $t=0$ , leaves it with the world rate in expectation after the  $t=1$  decisions of the borrower are taken into account.

The only other parties available to bear the cost are the shareholders of the firm from B. Overall, they will pay the world rate for funds in expectation, with the "discount" available at  $t=1$  being offset by a higher rate at  $t=0$ . While the cost of capital is not affected by the firm, the inefficient allocation of capital will lead, of course, to a lower return for the firm.

Having identified that it is the shareholders of the firm in B that bear the cost, we must ask if it is possible for them to avoid this cost through some behavior ex ante. We will address this question in Part VI below.

### C. The Benefit to a Country from Territoriality

We now examine the potential benefits available to a country, A, from adopting a territorial regime. For analytical purposes, we will take B's behavior as given -- thereby abstracting from all strategic interactions between the two countries. These interactions are important, and will be discussed in the next section.

As we have shown, by adopting a territorialist regime, A distorts the decisions of B's

firms. Assuming that A does not care about the welfare of B's citizens, and assuming that the shareholders of B's firms are all citizens of B, this welfare cost is not relevant to A's decision.<sup>68</sup>

At first glance, it may appear that territoriality benefits A's creditors by giving them more in the event of bankruptcy. We have seen, however, that this is not the case. Lenders get the world rate, regardless of the regime in place. By favoring them in bankruptcy, A simply reduces the amount they earn in the non-bankruptcy state.

While the benefit to local creditors is not present, the analysis reveals two other benefits. The first is that by becoming territorialist, A will attract investment by B's firms. This is precisely the effect of the territorialist policy that leads to the global distortion. Attracting additional investment will be welfare enhancing for a country if there are non-trivial spillovers to investment or transfers associated with priority in taxing corporate income. For example, the investing firm may not be able to capture the full surplus created by its transactions with local suppliers and workers. There may be a transfer of technology or management skills (i.e., human capital) for which the firm cannot capture payment; there may be certain public good elements to the firm's activities, such as paving roads or public service activities; and so on. If these spillovers are significant, A may have a reason to attract the investment of B's firms even if B is a more efficient location.<sup>69</sup>

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<sup>68</sup>It is, of course, artificial to assume that all of B's shareholders are citizens of B. To the extent that citizens of A are also shareholders of B, the benefits of territorialism are reduced, and may even be negative.

<sup>69</sup>Note that we are assuming that spillovers are proportional to output -- meaning that global efficiency is served by investing where  $G_i$  is highest. If this is not the case, then we have an additional distortion created by the fact that the private optimum (investing where  $G_i$  is greatest) may differ from the social optimum (investing where  $G_i +$  spillover benefits is greatest.)

An additional benefit to A from a territorial regime stems from the borrowing decision of firms. If B has in place a universalist regime, firms can avoid the distortion altogether by borrowing from A at  $t=0$ , as demonstrated in Section IV.C. Under unilateral territorialism, A will attract more borrowing for the same reasons it attracts investment -- the distortion leads to both investment and borrowing in A. If there are some rents to lending captured by creditors, or if there are spillovers to providing credit, then there would be some incentive for a country to attempt to become the source for more loans.

#### D. Reciprocity

Our analysis allows us to consider the importance of reciprocity with respect to universality. The case law on transnational bankruptcies has often discussed the importance of reciprocity, though there is currently no consensus on the issue.

In *Hilton v. Guyot*,<sup>70</sup> the Court stated that United States should only give effect to a French judgment to the same extent that France would give effect to an American judgment.<sup>71</sup> The court was not seeking to influence the policies of other countries, nor was the ruling intended to retaliate against those nations that refused to enforce American judgments. Instead, the court based its decision on "the broad ground that international law is founded upon mutuality and reciprocity . . . ."<sup>72</sup> The Third Circuit, in *Remington Rand*

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<sup>70</sup>159 U.S. 113 (1895).

<sup>71</sup>*Id.* at 211 - 228.

<sup>72</sup>*Id.* at 228.

*Corp. v. Business Systems Inc.*<sup>73</sup> (Remington I) and *Kilbarr Corp. v. Business Systems Inc.*<sup>74</sup> (Remington II) appeared to be applying a reciprocity requirement. Although the court does not explicitly state that reciprocity is required, the case suggests that the Third Circuit may require reciprocity.<sup>75</sup> Most courts, however, do not demand reciprocity. In addition, it is not universally supported by commentators, and is not required by § 304. For example, *Cunard S.S. Co. v. Salen Refer Services AB*<sup>76</sup> states that “while reciprocity may be a factor to be considered, it is not required as a condition precedent to the granting of comity.”<sup>77</sup>

As we have shown, each country, acting individually, will prefer to be territorialist. The cost of territorialism in A is borne by foreign firms and their shareholders, a group whose welfare loss is not a concern to A. Country A may benefit from its territorialism to the extent that there are spillovers to investment and lending. In other words, citizens of A benefit from the policy while citizens of B suffer the costs.

Acting individually, therefore, both A and B will be induced to act in a way that would reduce total global welfare. This result provides a rationale for a reciprocity requirement. Country A, for example, could adopt a policy of universalism toward B if and only if B adopts a universalist policy toward A. This policy would work well only if B faces

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<sup>73</sup>830 F.2d 1260 (3d Cir. 1987).

<sup>74</sup>990 F.2d 83 (3d Cir. 1993).

<sup>75</sup>*Remington II*, 830 F.2d at 1273.

<sup>76</sup>773 F.2d 461 (2d Cir. 1985).

<sup>77</sup>*Id.* at 460 (citing *Johnson v. Compagnie Générale Transatlantique*, 242 N.Y. 381, 387 (1926)).

potential losses should A adopt a territorialist regime. Such would be the case only if B had firms with significant domestic debt and investment opportunities (now or in the future) in A.

If there are significant investment flows in both directions, such as between the United States and Europe, then a policy of reciprocity would be an effective way to achieve universality. On the other hand, if country B is a developing country with few multinational firms headquartered in that country, territorialism by A would be virtually costless to B. A policy of reciprocity may not work under such circumstances, and other avenues such as treaties or side-payments would have to be explored.

#### E. Can Ex Ante Private Action Eliminate the Distortion?

To this point, the paper has demonstrated that there are distortions at  $t=1$ , given exogenous external debt. We have also shown that with competitive debt markets, the cost of the distortions are going to be borne by the shareholders of borrowing firms. This leaves open the question of whether it is possible for those shareholders, at  $t=0$ , to adopt some contractual arrangement that would eliminate the distortion. In order to examine this problem, we will focus, for simplicity, on the case of bilateral territorialism.<sup>78</sup> As will be shown, it does not seem plausible that debtors and creditors can design contracts that would eliminate the distortion.

If all parameters were verifiable by courts, it would obviously be possible to eliminate the distortion. The initial contract could simply specify that if the firm must invest in A if  $G_A > G_B$  and must invest in B if  $G_B > G_A$ . This would ensure that the firm always invests in

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<sup>78</sup> We choose bilateral territorialism both because it is the more realistic case and because in the unilateral case the distortion is easily avoided by firms that borrow from the territorialist state at  $t=0$ , as shown in Part IV.C.

the most efficient location, thereby eliminating the inefficiency.<sup>79</sup> This solution would require, of course, that  $G_i$  be observable and verifiable by a court. It is reasonable to assume that the  $G_i$  are not observable and verifiable, making this form of contractual solution unavailable.

If  $G_A$  and  $G_B$  are observable at  $t=0$ , even if not verifiable by a court, the firm could simply borrow from the country in which  $G_i$  would be lower at  $t=1$ . The firm would pay a premium for its  $t=0$  loan but would get an offsetting discount at  $t=1$  and its investment decision would be efficient. The result of these actions would be a cost of capital equal to the world rate and an efficient allocation of investment. There would no inefficiency. Unfortunately, it is unlikely that future investment opportunities will be known at the time of the initial borrowing of funds, making this solution impossible.

We can also consider arrangements that do not require knowledge of the value of future investment projects. Consider first that by maintaining the same debt to asset ratio in every country, a firm can avoid the distortion discussed in this paper. By keeping one-half of its debt in A and one-half in B, the firm will be able to get the same interest rate discount no matter which country it invests in, thereby eliminating the distortion of the interest rate and making the investment decision depend only on the  $G_i$ . In a world of many countries, this solution would require the firm to distribute its initial debt equally among all countries.

It seems likely, however, that transaction costs are high enough to prevent this sort of

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<sup>79</sup>To ensure that the firm respects the terms of the contract, it would be sufficient to establish that failure to do so constitutes a breach, allowing the lender to call the loan.

strategic borrowing at  $t=0$ . Imagine that there is a fixed cost to borrowing from a country.<sup>80</sup> In a world of many countries (even considering only industrialized countries implies a large number), the transaction costs must be paid many times over. In addition, many of the borrowers will face only a small probability of investing abroad in the future. In such a world, it is easy to imagine that transactions costs would prevent attempts to equalize borrowing across countries. In a more dynamic model, even if borrowing were initially equal across countries, the firm will, in each period, face incentives to borrow in the country in which it invests.<sup>81</sup> After a few periods of investment, therefore, the firm's debt would be disproportionately concentrated in those countries in which it had invested.<sup>82</sup> For the above reasons, the model maintains the assumption that all borrowing takes place at  $t=0$  from a single country.<sup>83</sup>

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<sup>80</sup>For example, the firm must hire local attorneys, become familiar with local practices, perhaps travel to the countries in question, etc.

<sup>81</sup>Although having the same amount of debt in each country will prevent a distortion in the locational decision, it will still be true that under territorialism the firm will be offered a lower interest rate from creditors in country in which it invests. There is empirical support for the proposition that firms prefer to finance projects with borrowing from within the country in which they are investing. See RICHARD E. CAVES, *MULTINATIONAL ENTERPRISE AND ECONOMIC ANALYSIS* ch. 6 (2d ed. forthcoming 1996); J.N. Behrman in R.F. MIKESSELL, *U.S. PRIVATE AND GOVERNMENT INVESTMENT ABROAD* 95 - 98 (1962) (concluding from survey evidence that most American multinationals attempt to minimize the dollar equity invested abroad, preferring to borrow locally); M.Z. BROOKE & H.L. REMMERS, *THE STRATEGY OF MULTINATIONAL ENTERPRISE: ORGANISATION AND FINANCE* 182, 195 (1970); S.M. ROBBINS R.B. STOBAUGH, *MONEY IN THE MULTINATIONAL ENTERPRISE: A STUDY OF FINANCIAL POLICY* ch. 4 (1973). The usual explanation for the phenomenon of local finance is risk aversion on the part of the multinational. By borrowing locally, the firm faces a much smaller foreign exchange risk. This paper suggests that territoriality may increase the incentive to borrow locally -- even if the firm is risk neutral. Regardless of the cause of the borrowing, however, local finance is inconsistent with the equalization of borrowing across countries.

<sup>82</sup>This claim is supported by the prevalence of local finance. Firms typically raise capital in the same jurisdiction as the investment is planned. After an investment is made, therefore, the firm will no longer hold an equal amount of debt in each country.

<sup>83</sup>A caveat is in order with respect to firm borrowing decisions. There is some empirical evidence suggesting that firms attempt to equalize foreign-exchange assets and liabilities in order to minimize exchange rate risk. See CAVES, *supra* note 72. To the extent that firms succeed in equalizing the distribution of ratio of debt and assets, this will reduce the distortion we have pointed out in this paper.

Another possible solution is contingent contracting. The  $t=0$  loan contract could make the interest rate on that contract depend on future investment behavior. For example, the contract might say that if the firm borrows abroad, the interest rate will increase. As a practical matter, such a contract poses such large informational problems that it is difficult to imagine it actually being written. The range of possible future investments and the uncertainty about the riskiness of future ventures, the amount borrowed, the timing and the location make a contingent contract improbable.

Yet another potential solution is a contract that simply restricts future borrowing. This approach faces at least two problems. The first is that it would impose a cost of its own if local capital markets are not large enough to supply all the capital that is necessary. The second problem is that investments made abroad inevitably involve some form of borrowing abroad. Some creditors must be local creditors; for example, tort creditors and supply creditors cannot be chosen entirely based on their location.

Finally, a contract that requires renegotiation of the existing contract prior to any foreign borrowing might be considered. This solution, however, would leave a hold-out problem as the lender could demand a large share of the expected rents from any future investment.

The above analysis suggests that private action cannot be relied upon to eliminate the identified distortion in this paper. Thus, the distortion should be taken into account when designing national and international transnational bankruptcy arrangements.

## VI. CONCLUSION

This paper has identified some effects of the rules governing transnational bankruptcies. The analysis has demonstrated that a regime of territoriality generates an efficiency cost that has not previously been recognized. Specifically, territoriality creates ex ante distortions in firms' locational decisions. In contrast, universality acts to allow the distribution of assets without distortion, leading to more efficient investment patterns.

The paper has also identified the winners and losers from territoriality. Among other things, it has been shown that even though territoriality reduces overall global welfare, a country, taking the behavior of other countries as given, may benefit from territoriality at the expense of foreign firms. Reciprocity represent a form of international coordination that may facilitate reciprocity, although in some situations it may be that universalism can only be achieved through formal international agreement.