

2004

Legal Institutions and International Trade Flows

Daniel Berkowitz
University of Pittsburgh

Johannes Moenius
Kellogg School of Management

Katharina Pistor
Columbia Law School, kpisto@law.columbia.edu

Follow this and additional works at: https://scholarship.law.columbia.edu/faculty_scholarship



Part of the [International Trade Law Commons](#)

Recommended Citation

Daniel Berkowitz, Johannes Moenius & Katharina Pistor, *Legal Institutions and International Trade Flows*, 26 MICH. J. INT'L L. 163 (2004).

Available at: https://scholarship.law.columbia.edu/faculty_scholarship/3436

This Article is brought to you for free and open access by the Faculty Publications at Scholarship Archive. It has been accepted for inclusion in Faculty Scholarship by an authorized administrator of Scholarship Archive. For more information, please contact scholarshiparchive@law.columbia.edu, rwitt@law.columbia.edu.

LEGAL INSTITUTIONS AND INTERNATIONAL TRADE FLOWS

Daniel Berkowitz*
 Johannes Moenius**
 Katharina Pistor***

| | |
|---|-----|
| I. INTRODUCTION | 164 |
| II. EFFECT OF DOMESTIC INSTITUTIONS ON TRADE | 166 |
| III. EFFECTS OF INTERNATIONAL INSTITUTIONS ON TRADE | 174 |
| IV. THE EFFECT OF INTERNATIONAL INSTITUTIONS ON THE PATTERNS OF TRADE | 176 |
| V. EFFECT OF INTERNATIONAL INSTITUTIONS ON THE PERCEIVED QUALITY OF DOMESTIC INSTITUTIONS | 177 |

* Daniel Berkowitz is Associate Professor of Economics at the University of Pittsburgh. Before joining the faculty at the University of Pittsburgh, he taught at the University of Wisconsin-Madison. He has held visiting positions at the Central European University, the New Economic School and the University College London. His research has been supported by the Davidson Institute, the National Council for Eurasian and East European Research and the National Science Foundation. His main research interests are comparative law and development, comparative systems, applied microeconomics and post-socialist transition economies. Recent publications include Daniel Berkowitz & Karen Clay, *American Civil Law Origins: Implications for State Constitutions and State Courts*, AM. L. & ECON. REV. (forthcoming); Daniel Berkowitz & David N. DeJong, *Entrepreneurship and Post-Socialist Growth*, OXFORD BULL. OF ECON. & STAT. (forthcoming); Berkowitz, et al., *Economic Development, Legality and the Transplant Effect*, 47 EUR. ECON. REV. 1 (2003); Daniel Berkowitz & David N. DeJong, *Integration: An Empirical Assessment of Russia*, 53 J. URB. ECON. (2003); and Daniel Berkowitz & Wei Li, *Tax Rights in Transition Economies: A Tragedy of the Commons?*, 76 J. PUB. ECONOMIES 76 (2000).

** Johannes Moenius is an assistant professor in the management and strategy department at the Kellogg School of Management. He joined Kellogg in the fall of 2000 after completing his Ph.D. in Economics at the University of California, San Diego, where he specialized in international trade and econometrics. His research interests are the effects of institutions on trade as well as the dynamics of comparative advantage. A most recent publication is Moenius & Yuko Kasuya, *Measuring Party Linkage Across Districts: Some Party System Inflation Indices and their Properties*, 10 PARTY POLITICS 543-64 (2004).

*** Katharina Pistor is Professor of Law at Columbia Law School. Before joining the faculty at Columbia Law School, she taught at the Kennedy School of Government, and worked at the Max Planck Institute for Foreign and International Private Law in Hamburg, Germany. Her main research interests are comparative law, comparative corporate governance and the development of legal institutions with special emphasis on the evolution of law in transitional and emerging economies. Recent publications include Katharina Pistor, et al., *Economic Development, Legality and the Transplant Effect*, 47 EUR. ECON. REV. 165 (2003); Katharina Pistor & Chenggang Xu, *Incomplete Law*, J. INT'L L. & POL. (2003); FIDUCIARY DUTIES IN (TRANSITIONAL) CIVIL LAW JURISDICTIONS—LESSONS FROM THE INCOMPLETENESS OF LAW THEORY, GLOBAL MARKETS, DOMESTIC INSTITUTIONS: CORPORATE LAW AND GOVERNANCE IN A NEW ERA OF CROSS-BORDER DEALS (Curtis Milhaupt ed. 2003); Katharina Pistor, et al., *Innovation in Corporate Law*, J. COMP. ECON. (2003); and Katharina Pistor, et al., *The Evolution of Corporate Law*, 23 U. PA. J. INT'L ECON. L. 791 (2002). Financial support for Katharina Pistor was provided by the Milton Handler Summer Research Fund and is gratefully acknowledged.

| | |
|--|-----|
| VI. CASE STUDY: INDONESIA | 181 |
| VII. MEASURING INSTITUTIONAL QUALITY WITH PERCEPTION DATA | 191 |
| VIII. CONCLUSION | 197 |

I. INTRODUCTION

Globalization and increasing international flows of goods and capital have created a sense that the importance of individual nation states and the public goods they provide, including law and law enforcement institutions, is in decline.¹ Opting out of domestic legal institutions and into those of a third country or into an “international” architecture have been elevated to important complements, if not substitutes for “good” institutions at home.² If traders and investors could indeed effectively opt-out of their home jurisdiction’s legal systems, we should observe empirically that the quality of domestic institutions has little impact on international patterns of trade flows. Yet, empirical studies suggest the opposite, namely that a country’s domestic legal institutions have strong explanatory power for its integration in international markets.³

Part II of this paper explains this empirical observation. Why do domestic legal institutions matter, and why can trading parties—in particular exporters of complex goods—not easily opt-out of their domestic legal institutions? We argue that domestic institutions remain important even in a globalized world, because they are the final option

1. *But see*, Paul Hirst, *The Global Economy—Myths and Realities*, 73 INT. AFF. 409 (1997) (arguing that the world economy has been global already for a long time and that state sovereignty and state institutions are as important as ever).

2. For a domestic “opt-out” see Lisa Bernstein, *Opting out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. LEGAL STUD. 115 (1992). Piggy-backing on another country’s laws and legal institutions has been advocated particularly in the area of financial market regulation. See Stephen J. Choi & Andrew T. Guzman, *National Laws, International Money: Regulation in a Global Capital Market*, 65 FORDHAM L. REV. 1855 (1997) and Stephen J. Choi & Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulations*, 71 S. CAL. L. REV. 903 (1998). Following the East Asian Financial crisis of 1997–98 the World Bank and the International Monetary Fund (IMF) have propagated the building of an “international financial architecture.” See WORLD BANK GROUP, INTERNATIONAL FINANCIAL ARCHITECTURE, at http://www.worldbank.org/ifa/ifa_more.html (also showing that the focal points of this effort are the local institutions of countries whose institutional framework is perceived to be weak, thus making the country vulnerable to crisis).

3. DANI RODRIK et al., INSTITUTIONS RULE: THE PRIMACY OF INSTITUTIONS OVER GEOGRAPHY AND INTEGRATION IN ECONOMIC DEVELOPMENT (Nat’l Bureau of Econ. Research, Working Paper No. 9305, 2002); JAMES E. ANDERSON & DOUGLAS MARCOUILLER, TRADE, INSECURITY, AND HOME BIAS: AN EMPIRICAL INVESTIGATION (Nat’l Bureau of Econ. Research, Working Paper No. 7000, 1999). See also Daniel Berkowitz et al., *Trade, Law and Product Complexity* (2004) (submitted for publication)(hereinafter denoted as *BMP*).

for enforcing a claim against a party in the event of a breach of contract. International contracts take place in the shadow of the parties' home institutions. Unless parties can negotiate a settlement, or the losing party voluntarily complies with a foreign court or arbitration ruling, the winning party must seek enforcement against the assets of the losing party—and they tend to be located primarily in that party's home jurisdiction. For reasons further explained below, importers and exporters are not equally exposed to the risk of bad domestic institutions' actions. By implication, exports, and particularly complex goods exports suffer more from bad legal institutions in the exporter's home jurisdiction, than imports.

The second goal of this paper is to identify the factors that influence a country's performance on institutional quality indices as well as the channel through which they influence trade. In order to do so, the effect of domestic (Part II) and of international legal institutions (Part III) on trade are distinguished. We find strong empirical evidence that the quality of domestic legal institutions—as measured by perception indicators—is positively associated with a country's exports in complex goods. These results are explained using incomplete contract theory. We also find that international laws, in particular a country's ratification of key international treaties affects trade patterns. The mechanism through which international laws affect trade outcomes is a change in the perception of a country's credibility to commit to impartial contract enforcement. Ratification of such a treaty—even in the absence of tangible institutional change—sends an easily verifiable signal to foreign entrepreneurs. We use case study analysis (Indonesia) to explore the importance of domestic institutional change for lending greater credibility to the signaling effect resulting from the ratification of an international convention. A positive effect on both trade patterns and perception indices can be achieved by signaling alone. The signaling effect, however, can be undermined by events that raise doubts about a country's willingness to adhere to its legal commitments. These findings lead to a review of the use of perception data for measuring institutional quality. We argue that perception data are critical, because they are part of potential traders' or investors' risk assessment. Moreover, our finding that the signaling effect of ratification results in change of economic behavior through changes in perception of quality of institutions addresses a recent critique about validity of these institutional quality measures.⁴

4. For a criticism of these perception indices, see Edward L. Glaeser et al., *Explaining Growth: Institutions, Human Capital, and Leaders* (Mar. 2004) (unpublished manuscript, prepared for the Brookings Panel on Economic Activity).

II. EFFECT OF DOMESTIC INSTITUTIONS ON TRADE

Trade has long been identified as an important variable in explaining economic growth and development.⁵ There is a voluminous literature that seeks to explain the propensity of countries around the globe to participate in international trade flows.⁶ More recently, trade economists have discovered the role of legal institutions as possible determinants for international trade flows. In a recent paper Subramanian, Rodrik and Trebbi use statistical techniques to demonstrate that the quality of a country's institutions is a much more important determinant of economic growth than either its location or trade patterns.⁷ Using instrumental variable techniques they provide evidence suggesting that good institutions cause trade rather than the other way around. Anderson and Marcouiller suggest that "good" legal institutions are important particularly for the importing country.⁸ The reason is that in a weak institutional environment corrupt officials may use their gatekeeper function at the border to extract bribes and rents. Other authors focus on the role of informal networks as alternatives to formal legal institutions.⁹

The empirical result that the quality of the trading parties' domestic institutions has a statistically significant effect on trade challenges presumptions commonly made in the legal literature, namely that parties to international trade transactions can effectively contract around defective domestic institutions.¹⁰ Parties may certainly opt into the law of the importer country or that of a third country, if they choose to do so.

5. WORLD BANK, *THE EAST ASIAN MIRACLE: ECONOMIC GROWTH AND PUBLIC POLICY*, 292–304 (1993).

6. Jeffrey D. Sachs & Andrew Warner, *Economic Convergence and Economic Policies*, 1 BROOKINGS PAPERS ON ECONOMIC ACTIVITY 1–118 (1995); Romain Wacziarg & Karen Horn Welch, *Trade Liberalization and Growth: New Evidence* (Nov. 2003), available at http://papers.ssm.com/sol3/papers.cfm?abstract_id=471941.

7. RODRIK, *supra* note 3.

8. James E. Anderson & Douglas Marcouiller, *Insecurity and the Pattern of Trade: An Empirical Investigation*, 84 *Rev. Econ. & Stat.* 344, 345–52 (2002).

9. ALESSANDRA CASELLA & JAMES RAUCH, *OVERCOMING INFORMATIONAL BARRIERS TO INTERNATIONAL RESOURCE ALLOCATION: PRICES AND GROUP TIES* (Nat'l Bureau of Econ. Research, Working Paper No. 6628, 1998).

10. See, e.g., YVES DEZALAY & BRYANT G. GARTH, *DEALING IN VIRTUE: INTERNATIONAL COMMERCIAL ARBITRATION AND THE CONSTRUCTION OF A TRANSNATIONAL ORDER* (John M. Conley & William M. O'Barr, eds., 1996). In Chapter One of this book, the two authors state that:

When businesses enter into transnational relationships such as contracts for the sale of goods, joint ventures, construction projects, or distributorships, the contract typically calls for private arbitration in the event of any dispute arising out of the contractual agreement. The main reason given today for this choice is that it allows each party to avoid being forced to submit to the courts of the other.

Id. at 5.

Moreover, international efforts to standardize law have created a common legal framework for key aspects of contract law.¹¹ Finally, parties can choose where future disputes shall be resolved. They may opt for courts in one of their countries or refer disputes to the courts in a “neutral” jurisdiction. Instead of choosing courts, they may also submit their disputes to arbitration, including arbitration in a third country or to an international arbitration tribunal, such as the International Arbitration Court at the International Chamber of Commerce.¹² If the choice of law or forum could fully insulate transacting parties from the negative impact of “bad” legal institutions, we should not find these domestic institutions to have a strong and statistically significant impact on international trade flows. An important insight of the empirical studies thus is that private parties *cannot* fully insulate their transactions from domestic legal institutions.

The reason why full insulation of private contracts from defunct legal institutions in their home jurisdiction is difficult, if not impossible, is that one of the trading partners—and the exporter more than the importer—may rely on his home country’s defective institutions to avoid contractual liability in case of dispute. International harmonization of law may lower the propensity of dispute, but once a dispute has arisen, domestic enforcement of international rulings is the Achilles heel of transnational relations. Using third country courts or arbitration tribunals may solve the problem of effective dispute resolution, but this does not ensure *compliance* with the final ruling. If the losing party chooses to ignore the ruling, the winning party has to execute it by making use of courts, bailiffs, and other execution organs in a place where that party has assets. Since the defendant’s most valuable assets tend to be located in his home jurisdiction, the institutions in the exporter’s country of origin ultimately determine whether or not the winning party can enforce her claim.

In principle, both the importer and the exporter can find themselves in a position where they have to execute a foreign court or arbitration award. In practice, however, exporters can more effectively protect

11. The most important example to date is the International Convention on Contracts for the Sale of Goods (CISG). To date, 29 countries have adopted CISG. For the period covered by our trade data (1982–1992) only sixteen countries in the sample had ratified the convention. Even for countries that have ratified the convention, it is not uncommon for private parties to explicitly opt-out of its provisions. This has been attributed to uncertainties about the interpretation of the convention’s provisions. See Paul B. Stephan, *The Futility of Unification and Harmonization in International Commercial Law*, 39 VA. J. OF INT’L L. 743 (1999); Steven Walt, *Novelty and the Risks of Uniform Sales Law*, 39 VA. J. INT’L L. 671 (1999).

12. See International Chamber of Commerce, at http://www.iccwbo.org/home/menu_international_arbitration.asp.

themselves against breach of contract than importers. They can, for example, require pre-payment or bills of exchange “on first demand,” or engage reliable intermediaries where payment can be deposited until the goods have been delivered (e.g. letter of credit).¹³ These mechanisms have been tried and tested in long-distance trade for centuries¹⁴ and are a common feature of the international landscape today.¹⁵ Thus, exporters can be reasonably assured that they will get paid for the goods they deliver. It is substantially more difficult for the importer to enforce a contractual claim against the exporter, should the goods prove to be defective. To be sure, importers are not helpless either. They may hire third party inspection and testing agents in the exporter’s location before shipping, negotiate for inspection periods, and withhold payment until the state of the goods has been verified. This does not protect them, however, against defects that are not immediately apparent and will therefore be discovered only long after reasonable inspection periods have expired—and after they have fully paid for the goods. At this stage all they have is a legal claim. The contract may allow them to file the claim at an arbitration tribunal in a third country. As long as the exporter is willing to comply with such a ruling, this mechanism will work to the benefit of the importer. Should the exporter not be so inclined, however, the importer must execute the arbitration tribunal’s decision. This typically implies that she must use the courts in a country where the exporter has assets, which will tend to be his home jurisdiction. Put differently, the domestic institutions in the exporter’s home country are the ultimate fallback option for effective contract enforcement. Uncertainty about the reliability of these institutions affects the importer’s willingness to trade with firms from that country.

13. See GRADY MILLER, *The Legal and Economic Basis of International Trade*, in *THE LEGAL AND ECONOMIC BASIS OF INTERNATIONAL TRADE* 169-83 (1996)(discussing the business origins of trade finance).

14. See FERNAND BRAUDEL, *SOZIALGESCHICHTE DES 15.—18. JAHRHUNDERTS* (1985)(1979)(discussing the history of bills of exchange in long-distance trade). According to Braudel, the origins of the bill of exchange can be traced to problems that resulted from the complexity of barter arrangements in long distance trade. The use of bills of exchange allowed parties to receive payments for their goods before goods that were bartered had been received or sold to a third party. The price contracting parties paid for this financial service was a discount on the original purchase price. See also Rufus James Trimble, *The Law Merchant and the Letter of Credit*, 61 *HARV. L. REV.* 981, 983-86 (1948)(suggesting that the origins of letters of credit can be traced back to the ancient Egyptians, Phoenicians, and Greeks).

15. See U.C.C. REVISED ARTICLE 5: LETTERS OF CREDIT prefatory note, at xv (Proposed Final Draft 1995)(commenting that “nearly \$500 billion standby letters of credit are issued annually worldwide, of which \$250 are issued in the United States”). See also *ANNUAL SURVEY OF LETTER OF CREDIT LAW & PRACTICE* (James E. Byrne & Christopher S. Byrnes eds., 2004)(containing more recent data on the use of letters of credits in international trade).

Uncertainty about the quality of domestic institutions should, in principle, not discriminate among product categories. Still, building on the existing literature on incomplete contracts in economics¹⁶ there are good reasons to believe it does. Exporters, who must persuade their buyers that they will ship goods of an appropriate quality and assortment, depend more on the quality of their domestic institutions than importers, who must persuade their trading partners that they will pay for shipments. The basic intuition of the incomplete contract theory is that the ability to verify compliance with or breach of contract influences parties' behavior at the contracting stage. Contracting parties cannot foresee all future contingencies and therefore cannot possibly write a complete contract that addresses all of them, avoiding disputes and thus eliminating the need to revert to the courts for dispute settlement and enforcement. This proposition also implies that it may be possible to write *relatively* more complete contracts for some transactions than for others and that this will depend on the relative potential to verify breach at a later stage. Sales contracts, for example, can govern different types of goods. The simpler and more standardized the type of product, the more complete the contract and the easier verification of breach of contract.

Examples of simple goods are natural resources, such as oil, copper or gold. While there may be important differences in the purity of these resources, these can still be specified by the parties *ex ante* and easily verified by way of inspection *ex post*. An example for a complex good is a computer network system for a company, which has to be adapted to the specific needs of the customer. Most goods that are traded internationally fall somewhere in between these two extremes. Grain is a fairly simple good, but the fact that the Grain and Feed Trade Association (GAFTA) lists eighty different contract types on its web page suggests that grain can come in various types and qualities.¹⁷ Still, it is substantially more difficult to write a fairly complete contract for complex goods, as the following example illustrates. In a case governed by the United Nations Convention on Contracts for the International Sale of Goods (CISG) and ultimately ruled upon by the German Supreme Court

16. The literature goes back to the seminal paper, Sanford J. Grossman & Oliver D. Hart, *The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration*, 94 J. POL. ECON. 691-719 (1986) (using incomplete contract theory to explain the function of ownership). For a recent account of the foundations and use of incomplete contract theory, see Oliver Hart & John Moore, *Foundations of Incomplete Contracts*, 66 REV. ECON. STUD. 115-38 (1999); *but see* Eric Maskin & Jean Tirole, *Unforeseen Contingencies and Incomplete Contracts*, 66 REV. ECON. STUD. 83-114 (1999) (criticizing the conceptual framework commonly used in the incomplete contract literature).

17. GAFTA, at <http://www.gafta.com/New/NewContracts.htm>.

(Bundesgerichtshof),¹⁸ a German party had sold a printing system to an Austrian party. The contract included the following warranty:

The warranty covers software and hardware as a unit. (. . .) In the event that a subsequent malfunction of a defect appears later, the buyer shall give prompt written notice of this fact to the [seller]. . . . If cure of the defect fails twice, the buyer may then, according to his choice, reduce the purchase price or declare the contract avoided.¹⁹

On January 30, 1993, the printer was installed and handed over for operation on February 8. The buyer informed the seller by letter dated February 9 that several points remained “open,” including “[d]ocumentation of the [p]rinter” and requested that this should be rectified by February 25. The seller responded with letter dated February 11 announcing delivery of documentation in the seventh calendar week. In subsequent correspondence the printer documentation was not mentioned anymore, but the parties discussed the documentation for the software that came with the printer unit. The buyer eventually rescinded the contract on the grounds that the seller had failed twice to cure the defect. During litigation the question arose, whether reference to the missing “documentation of the printer” in the buyer’s first complaint implied documentation for the entire unit, including for the software. This was important, because only then could buyer claim that the seller failed twice to cure the defect. The appellate court ruled in favor of the buyer; however the German Supreme Court reversed by arguing that the malfunctioning elements of the contract had to be specified individually and that a general reference to “documentation of the printer” did not include the software.²⁰

The case demonstrates that a simple warranty clause designed to clearly allocate rights and responsibilities between the contracting parties raises complicated questions of interpretation in the case of complex goods. The parties clearly did not anticipate the possibility that they would dispute over whether failure to deliver printer documentation would amount to a product defect, much less the meaning of “documentation of the printer.” The problem surrounding the delivery of proper documentation arose only because the printer unit was a highly complex good the proper functioning of which depended on correct operation based on specific documentation.

18. See IPRspr 162, 394–95, English translation available at <http://cisgw3.law.pace.edu/cases/961204g1.html>.

19. *Id.*

20. *Id.*

Problems of this kind are far less likely to arise with simple goods. The typical “defective good” cases involve cases of delivery of the wrong good (i.e. Australian summer wheat instead of winter wheat), or the meaning of average quality when bulk goods are delivered. These problems tend to get resolved by reference to business practice, i.e. what a reasonable contracting party would have expected. The more complex the goods, however, the more likely it is that additional misunderstandings occur and the more difficult it is to identify a common business practice. As a result, the propensity of disputes (and their costs) increases and so does the importance of legal institutions charged with resolving them.

We tested the proposition that exporters of complex goods are more vulnerable to institutional quality in their home jurisdiction than exporters using the trade data of fifty-five countries obtained from the World Trade Database compiled by Statistics Canada.²¹ The time period we cover is the period from 1982 to 1992. In order to differentiate between complex and simple goods we use the classification developed by Rauch,²² who sorts four digit SITC industries into trading categories:²³ those goods that are predominantly traded on organized exchanges (metals, pork), and all other goods that are not, including those that neither have reference prices nor are traded on an organized exchange (e.g., shoes, cars, and machinery). We simplify the classification by distinguishing only between simple goods, i.e. those that are traded on an international exchange, and complex goods, which are not. Clearly, this classification does not allow for a more fine grained analysis of relatively more complex goods. The benefit of differentiating only between two different product types, however, is that it avoids the need for subjective classifications of relatively more or less complex goods.

For the data on the quality of legal institutions we use survey data from the International Country Risk Guide (ICRG).²⁴ We use four indices

21. These 55 countries are: Argentina, Australia, Austria, Belgium-Luxemburg, Bolivia, Brazil, Canada, Chile, China, Columbia, Denmark, Ecuador, Egypt, Ethiopia, Finland, France, Germany FR, Ghana, Greece, Hong Kong, Hungary, India, Indonesia, Iran, Ireland, Italy, Japan, Kenya, Korea (Republic), Malaysia, Mexico, Morocco, the Netherlands, New Zealand, Nigeria, Norway, Pakistan, Paraguay, Peru, the Philippines, Poland, Portugal, Saudi Arabia, Singapore, South Africa, Spain, Sudan, Sweden, Switzerland, Thailand, Turkey, the United Kingdom, the United States, Uruguay, and Venezuela.

22. James E. Rauch, *Networks Versus Markets in International Trade*, 48 J. INT'L ECON. 7-35 (1999).

23. SITC stands for “standard international trade classification.” See U.N. Statistics Division, at <http://unstats.un.org/unsd/cr/registry/regest.asp>.

24. The ICRG data are explained in Stephen Knack & Philip Keefer, *Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures*, 7 ECON. & POL. 207 (1994) and may be accessed on a fee basis via the internet at <http://www.icrgonline.com>.

of this data set: rule of law; expropriation risk; corruption in government; and bureaucratic quality; and compute them into a simple average. For each indicator respondents are asked to rank a country on a scale from one to ten on the relevant item with higher numbers indicating better quality.

Consistent with other studies,²⁵ we find that legal institutions do indeed matter for international trade flows. Countries with higher ratings on institutional quality experience greater trade flows. The impact of institutions is of a similar statistical relevance as gross domestic product (GDP) per capita, distance between countries, and language differences, all indicators that are well established as important determinants of international trade flows. Previous work, however, did not distinguish between simple and complex goods. Using the classification of simple versus complex goods discussed above, we find that the quality of legal institutions is substantially more important for exporters than for importers. In fact, we reject the null hypothesis that the quality of legal institutions has the same effect for exporter and importer countries at the ten percent level. Furthermore, we find that the overall impact of institutions for exporters is much stronger for complex versus simple products.²⁶

An alternative explanation for our results could be that for goods that are traded on international commodities exchanges, alternative enforcement mechanisms exist allowing parties to opt-out of domestic institutions. Contracting parties may use dispute resolution at exchanges or trade associations and rely on informal mechanisms, including reputation bonds or expulsion from such organizations rather than domestic institutions as their ultimate enforcement devices.²⁷ This explanation would be fully consistent with the literature on early long distance trade as well as recent studies on trade among Chinese business networks in Southeast Asia. Avner Greif, for example, explains the resilience of long-distance trade in the Mediterranean in early modern times with strong ethnically based networks of trading intermediaries, the Maghribi traders, who relied heavily on reputation bonds and their ability to ostracize breaching parties.²⁸ Similarly, Lisa Bernstein has investigated enforcement mechanisms among traders at the Diamond Exchange in New York

25. See *supra* note 3.

26. *BMP*, *supra* note 3, at 36, t.4.

27. For a discussion of non-legal sanctions in general, see Anthony T. Kronman, *Contract Law and the State of Nature*, 1 J.L. ECON. & ORG. 5 (1985). For a more specific discussion on non-legal sanctions in commercial relations, see David Charny, *Nonlegal Sanctions in Commercial Relationships*, 104 HARV. L. REV. 375 (1990).

28. Avner Greif et al., *Coordination, Commitment, and Enforcement: The Case of the Merchant Guild*, 102 J. POL. ECON. 745 (1994).

and elsewhere and has documented in great detail the non-legal sanctions that exist and function as effective substitutes for legal enforcement mechanisms.²⁹ Finally, Rauch and Casella suggest that business networks among the Chinese diaspora in Southeast Asia support long-distance trade in this part of the world.³⁰ Even absent ethnic or religious ties, effective enforcement mechanisms may be established at organized trade fairs. Historical examples include the trade fairs of the Middle Ages, such as the Champagne fairs. The “law merchant” functioned primarily as a central source of information about unreliable trading partners, as failure to comply with past rulings would be recorded and the information shared with other merchants.³¹

We cannot fully rule out that alternative enforcement mechanisms account for some of the results we observe. Closer analysis of dispute resolution mechanisms at commodities exchanges or trade associations specializing in different product categories, however, revealed little evidence of enforcement mechanisms that could effectively substitute for domestic institutions. Few international commodities exchanges have active arbitration tribunals that resolve disputes among buyers and sellers of such commodities. They typically offer such services to their own members or to brokers: not, however, to the ultimate buyers and sellers of the commodities traded on the exchange. Apart from commodity exchanges, trade associations can offer alternative mechanisms for resolving contractual disputes in international trade. There are numerous trade associations specializing in different product categories. Most international trade associations, however, do not offer quasi-legal services. We surveyed eighty-two international trade associations,³² but found only three that offered dispute resolution to their members, GAFTA, the Coca Association of London, and the Liverpool Cotton Association.³³ The absence of institutionalized dispute resolution mechanisms does not

29. Bernstein, *supra* note 2.

30. ALESSANDRA CASELLA & JAMES E. RAUCH, ANONYMOUS MARKETS AND GROUP TIES IN INTERNATIONAL TRADE (Nat'l Bureau of Econ. Research, Working Paper No. 6186, 1997). See also, James E. Rauch & Vitor Trindade, *Ethnic Chinese Networks in International Trade*, 84 Rev. Econ. & Stat. 116 (2002); Rauch, *supra* note 22. For a theoretical discussion on the role of middlemen in trade relations, see Janet T. Landa, *A Theory of The Ethnically Homogeneous Middleman Group: An Institutional Alternative to Contract Law*, 10 J. LEGAL STUD. 349 (1981).

31. Paul R. Milgrom et al., *The Role of Institutions in the Revival of Trade: The Law Merchant, Private Judges, and the Champagne Fairs*, 2 ECON. & POL. 1–23 (1990).

32. We defined an “international” trade association as one that had members from at least 2 different countries. We surveyed their web pages and sent out an e-mail as well as a letter to each (data on file with the authors).

33. Notably, all three associations specialize in simple goods. The reverse, however, does not hold. In other words, not all associations specializing in simple goods offer dispute resolution to their members.

exclude the possibility that membership in the association serves as a bonding device and limits shirking, as information about non-compliant members can be easily disseminated. Still, even those trade associations that do offer arbitration, do not rely on expulsion or blacklisting to enforce arbitration rulings, but refer disputes over these rulings to state courts. GAFTA, for example, refers disputes over the arbitration awards to English courts.³⁴ This suggests that contracting in the shadow of state enforcement mechanisms is preferred over a purely self-enforcing regime, even though the execution of a court ruling ultimately requires involvement of one of the parties' domestic courts.

III. EFFECTS OF INTERNATIONAL INSTITUTIONS ON TRADE

Our finding that the quality of domestic institutions is important for a country's participation in international trade flows—in particular of complex goods—challenges the proposition that international economic law can substitute for domestic institutions.³⁵ In this part of the paper, the potential of international law to act as a substitute for domestic institutions is further explored.

In assessing the reach of international law on private transactions it is important to note that dispute resolution mechanisms under international law typically address sovereign States. Some are designed to resolve disputes between States—such as arbitration at the World Trade Organization (WTO).³⁶ Others enable private parties to hold States accountable for breach of contract and/or violation of treaty obligations. An example is the International Convention for the Settlement of Investment Disputes (ICSID).³⁷ Similarly, under the North American Free Trade Agreement (NAFTA), private parties can invoke arbitration to resolve disputes with one of the Member States.³⁸ Moreover, European Union law enables private parties to seek judicial review of State actions that violate a Member State's commitments. Only *domestic* courts of a

34. A search of UK case law on Lexis renders 173 hits for GAFTA, 59 for FOSFA, and 14 for the Cocoa Association of London, with other associations trailing far behind. Search was last conducted in spring 2001. (Data on file with the authors).

35. See *supra* notes 8-12 and accompanying text.

36. The rules for dispute settlement under the WTO are set forth in the Dispute Settlement Understanding (DSU) the "Understanding on Rules and Procedures Governing Disputes" which were adopted as part of the Uruguay trade negotiations. The full text of the DSU is available at http://www.wto.org/english/docs_e/legal_e/28-dsu.pdf.

37. For a discussion of ICSID, see *infra* note 78 and accompanying text.

38. Under Chapter 11 of NAFTA investors can seek legal review of unequal treatment in one of the member states. They can refer the disputes to arbitration at ICSID, *supra* note 40, or UNCITRAL. The full text of the relevant Chapter 11 provisions is available at <http://www.sice.oas.org/trade/nafta/chap-111.asp>.

Member State may refer a case to the European Court of Justice, however.³⁹ Execution of rulings against a sovereign Member State takes the form of other States employing sanctions against it, such as trade sanctions authorized by the WTO arbitration tribunals.⁴⁰

By contrast, private parties have to employ domestic institutions of a sovereign State to enforce foreign court or arbitration awards. The closest there is to a supranational enforcement mechanism for private parties is the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards of 1958 (NY Convention).⁴¹ The NY Convention requires all Member States to enforce arbitration awards issued outside their own jurisdiction without having their own courts reviewing the substance of the award. By implication, contracting parties can agree to submit their disputes to arbitration in a third country and can seek enforcement in the home jurisdiction of the losing party without being extensively exposed to local courts. The NY Convention allows countries to refuse enforcement in exceptional cases, but these exceptions are, for the most part, narrowly defined.⁴² The most general opt-out possibility is that an arbitration award is found to violate a country's *ordre public*—or public policy. This rationale, however, has been invoked only occasionally as most countries have interpreted public policy as referring to the fundamental principles, not any inconsistency with domestic law.⁴³

39. See Treaty on the European Union, Mar. 25, 1957, art. 234. The full text of the consolidated version of the Treaty Establishing the European Community is available at http://europa.eu.int/eur-lex/en/treaties/dat/EC_consol.pdf.

40. Under procedures set forth in the DSU, *supra* note 36, in case of failure to comply, countries that have invoked dispute resolution shall first seek amicable settlement. In case that fails, they can obtain authorization from the dispute settlement body (DSB) to suspend obligations and concessions under the relevant WTO agreement vis-à-vis that state. See *supra* note 36, at art. 22(2).

41. See ALBERT JAN VAN DEN BERG, *THE NEW YORK ARBITRATION CONVENTION OF 1958: TOWARDS A UNIFORM JUDICIAL INTERPRETATION* (1981) (providing a detailed review of the history of the convention and its implications). Berg examines 140 cases from 18 countries that interpreted the NY Convention between 1958 and 1980. He finds a remarkably consistent interpretation of its main provisions, at least at the time of his writing when only 56 countries had adhered to the convention. Since then, the number of member states has increased to 134.

42. New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, June 10, 1958, 330 U.N.T.S. 38 (1959), art. V.1(a) [hereinafter NY Convention].

43. Albert Jan van den Berg reports that, "contrary to what was feared by some directly after the adoption of the Convention that the Convention's public policy provisions could be used by the courts to take away a great deal of its effectiveness, the courts have refused enforcement in very exceptional cases only. . . . In fact, although the public policy provisions are frequently invoked, out of some 140 decisions, enforcement of an arbitration agreement and an arbitral award was refused in five decisions only on account of public policy." Berg, *supra* note 41 at 366. Note, however, that at the time of his writing, fewer states had ratified the convention. Compare William Isaacson, *Enforcement Difficulties are Increasing*, 25 NAT'L L. J. 89 (2002) for a more recent account on problems with enforcing arbitral awards.

While the NY convention does not set up a supranational court or arbitration tribunal, it could nevertheless qualify as an international institution. The literature on institutions in the social sciences defines institutions as “rules of the game in a society, or more formally, [as] the humanly devised constraints that shape human interaction (. . .).”⁴⁴ The rules may be formal, i.e. constitutions, laws, or formal contracts, or informal, such as reputation bonds, or relational contracts. Aoki takes the analysis of institutions a step further and defines them as “sustainable systems of shared beliefs.”⁴⁵ This allows him to distinguish between formal legal obligations which may become, but are not themselves institutions, and actual practices—or institutions, which reflect a system of shared beliefs. According to this definition, the NY Convention may itself not be an institution, but could become one, if it affects the belief about a country’s willingness to enforce foreign arbitral awards impartially.

IV. THE EFFECT OF INTERNATIONAL INSTITUTIONS ON THE PATTERNS OF TRADE

We test the impact of the NY Convention on the shared beliefs about a country’s prospects of impartial contract enforcement by analyzing the effect the ratification of the convention has on trade patterns on the one hand, and on perception of domestic institutional quality on the other. We do this by exploiting the time variation in ratifying the convention across countries. The NY Convention was originally signed by twenty-four countries, fifteen of which are in our database.⁴⁶ Not all countries that signed the convention ratified it immediately. Belgium, for example, ratified the convention only in 1975, and Argentina in 1989. One signatory country, Pakistan, has not ratified the convention to this day. The additional 110 countries that ratified the Convention have done so over

44. DOUGLASS CECIL NORTH, *INSTITUTIONS, INSTITUTIONAL CHANGE, AND ECONOMIC PERFORMANCE* 3-4 (1990). Note that North clearly distinguishes institutions from organizations. According to this terminology, a court or arbitration tribunal is an organization, not an institution. For a review of related literatures in political sciences on institutions and their definitions, see Peter A. Hall & R. C. R. Taylor, *Political Science and the Three New Institutionalisms*, 44 *POL. STUD.* 936-57 (1996).

45. MASAHIKO AOKI, *TOWARD A COMPARATIVE INSTITUTIONAL ANALYSIS* 10 (2001).

46. These countries are Argentina, Belgium, Ecuador, Finland, France, Germany, India, Israel, Jordan, the Netherlands, Pakistan, the Philippines, Sri Lanka, Sweden, and Switzerland. The other signatory countries are Belarus, Bulgaria, Costa Rica, El Salvador, Luxemburg, Monaco, Poland, the Russian Federation, and Ukraine.

time. The United States ratified the convention in 1970, the United Kingdom in 1975, but Brazil, for example, only in 2002.⁴⁷

We find that ratifying the NY Convention does indeed have a measurable impact on a country's trading patterns.⁴⁸ In countries that have ratified the NY Convention, the quality of domestic institutions is somewhat less important for complex goods exports than for countries that have not yet signed the convention. Put differently, countries that have ratified the convention now export more complex goods even in the absence of high marks on domestic institutional quality.

V. EFFECT OF INTERNATIONAL INSTITUTIONS ON THE PERCEIVED QUALITY OF DOMESTIC INSTITUTIONS

These empirical results are consistent with the notion that ratification of the NY Convention triggers a process of institutionalization. Countries signal their commitment to abide by international rules by ratifying the NY Convention. And foreign entrepreneurs respond to this signal by collectively changing their trading behavior. The missing element in this account is the channel through which the NY Convention as an international institution affects economic outcomes. We analyze this channel first by exploring statistically the impact of the NY Convention on the perception indices for institutional quality. Second, we conduct a more detailed analysis of one country—Indonesia—to identify possible domestic reforms that may have accompanied or re-enforced the adoption of the convention. The purpose of the case study analysis is to assess the relative importance of signaling on the one hand, and substantive institutional (or organizational) change on the other.

In theory, there are various ways in which a country may try to signal a friendly business environment. It may, for example, unilaterally declare that it will from now on play by the rules. Such a unilateral declaration may not be very compelling, however, especially in countries with a weak track record of property rights protection and contract enforcement. A more credible signaling strategy is to enter into a legally binding commitment, by, for example, becoming a party to an international convention. The signing or even ratification of an international convention, however, does not guarantee that a country will implement and enforce the rules specified therein. Since the international community cannot easily police and enforce compliance, ratifying a convention

47. For a detailed analysis of Brazil's accession to the NY Convention, see JAN KLEIN-HEISTERKAMP, *INTERNATIONAL COMMERCIAL ARBITRATION IN THE SOUTHERN COE OF THE AMERICAS* (2004)(forthcoming).

48. For detailed statistical results see *BMP*, *supra* note 3, t.4.

creates a commitment, but on its own does not imply institutional change. Still, ratifying an international convention is a more credible signal than a unilateral declaration, because deviations will be noticed not only as domestic aberrations, but as violations of the international legal order as well. Indeed, we find strong evidence that the ratification of the NY Convention affects the perception of a country's institutional quality even after controlling for openness to trade, GDP per capita, or for ratifying the CISG, which harmonizes important aspects of contract law (see Tables 1a and 1b).⁴⁹ This result indicates that signaling effects work independently of tangible legal reforms. We find it especially noteworthy that according to our regression results, ratifying the NY Convention alone may not be sufficient to convey a signal, but ratifying it without reservation almost always does.⁵⁰ Unfortunately, we cannot control for reform efforts in our statistical analysis, as detailed data on micro-institutional reforms are not available for a large set of countries. Instead, we conduct a case study of a single country.

49. Because all regressions include country-fixed effects, our coefficients capture the effect of actually signing the NY convention between 1980 and 1997 on perception indices. Surprisingly, openness as measured by the share of exports and imports in GDP has no explanatory power for the quality of legal institutions, casting doubt on the relevance of the endogeneity issue that will be further discussed below.

50. This can be seen from the coefficient on the variable "NYC and NYC without reservation combined:" while the coefficient on "NY-convention" measures the effect of ratifying the convention with or without reservations, the coefficient on "NY-convention without reservations" measures the *additional* effect of ratifying it without reservation. The combined coefficient indicates how strong this effect is overall for the countries that ratified the convention without reservation.

TABLE IA
THE EFFECT OF INTERNATIONAL INSTITUTIONS
ON PERCEPTION OF LEGAL QUALITY

| | <i>Corruption in Government</i> | | | <i>Rule of Law</i> | | |
|---|---------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--------------------------------|
| | | | | | | |
| NY-convention | -0.30 (-1.59) | -0.29 (-1.54) | -0.18 (-1.18) | 0.47 ^c (2.65) | 0.45 ^c (2.49) | 0.22 (0.82) |
| NY-convention without reservations | 0.98 ^c (2.55) | 0.97 ^c (2.53) | 0.86 ^b (2.31) | 1.16 ^c (3.15) | 1.18 ^c (3.21) | 1.16 ^c (2.75) |
| CISG | | -0.07 (-1.23) | -0.11 (-1.11) | | 0.16 (1.58) | -0.26 ^{**} (-2.40) |
| GDP per Capita | | | 0.30 (0.55) | | | 2.31 ^{***} (4.96) |
| Openness | | | -0.001 (-0.22) | | | 0.008 (0.90) |
| NYC and NYC without Reservations Combined | 0.68 ^b (2.04) | 0.68 ^b (2.03) | 0.68 ^b (2.01) | 1.63 ^c (5.08) | 1.63 ^c (5.07) | 1.38 ^c (4.11) |
| Adjusted R-squared | 0.85 | 0.85 | 0.86 | 0.74 | 0.74 | 0.79 |
| Number of Observations | 1,002 | 1,002 | 954 | 1,002 | 1,002 | 954 |

TABLE 1B
THE EFFECT OF INTERNATIONAL INSTITUTIONS
ON PERCEPTION OF LEGAL QUALITY
(CONTINUED)

| | <i>Contract Enforcement</i> | | | <i>Expropriation Risk</i> | | |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| NY-Convention | 1.51 ^c (3.39) | 1.35 ^c (2.86) | 0.80 (1.13) | 1.96 ^c (3.65) | 1.84 ^c (3.21) | 1.49 ^a (1.88) |
| NY-Convention without Reservations | 0.68 (0.59) | 0.84 (0.72) | 0.77 (0.53) | 1.34 ^b (1.94) | 1.46 ^b (2.03) | 1.27 (1.26) |
| CISG | | 1.24 ^c (4.05) | 0.58 (1.58) | | 0.92 ^c (3.66) | 0.28 (0.93) |
| GDP per Capita | | | 4.00 ^c (4.86) | | | 3.99 ^c (4.47) |
| Openness | | | 0.02 (1.69) | | | 0.02 (1.56) |
| NYC and NYC without Reservations Combined | 2.19 ^b (2.07) | 2.19 ^b (2.07) | 1.58 (1.23) | 3.30 ^c (7.60) | 3.30 ^c (7.60) | 2.75 ^c (4.39) |
| Adjusted R-squared | 0.22 | 0.22 | 0.23 | 0.51 | 0.52 | 0.60 |
| Number of Observations | 962 | 962 | 954 | 962 | 962 | 914 |

In the preceding tables, all regressions include country-fixed effects. Robust t-statistics are adjusted for clustering on the country-level and are presented in parenthesis. ^c, ^b, and ^a indicate statistical significance at the 1%, 5% and 10% level respectively. The coefficient and t-statistic on "NYC and NYC without Reservations Combined" is calculated as a linear combination of the two corresponding coefficients.

VI. CASE STUDY: INDONESIA

Indonesia has experienced the greatest change in the perception indices during the period covered by our statistical analysis (1980–1992). During the same period, Indonesia also witnessed one of the greatest changes in the ratio of simple versus complex goods exports.⁵¹ This country is thus a perfect case for analyzing the relation between institutional change and changes in trade patterns. We examine the locus, timing, and effect of institutional reforms related to international trade and investment and compare these changes with changes in perception indices. We find that it is difficult to relate changes in perception data to specific legal or judicial reform activities, but we observe trends that, at least in some cases, seem to have been triggered by institutional events.

Indonesia's economic history in the post World War II era is commonly divided into two major periods, the one before and the one after 1966. Here, 1966 signals the shift from predominantly socialist to a more market based approach to economic policy.⁵² The period after 1966 can be further subdivided into periods of decisive economic liberalization between 1967 and 1972, and again between 1985 and 1992. In comparison, the years between 1972 and 1985 were characterized by a more cautious approach to economic liberalism.⁵³ Finally, the East Asian Financial crisis of 1997–98 was another watershed both politically and economically, which refocused attention on institution building as a prerequisite for economic, and especially financial, liberalization.⁵⁴ Indonesia attracted substantial amounts of foreign direct investments in the early 1970s that compared favorably with other high performing

51. *BMP*, *supra* note 3, t.2.

52. HAL HILL, *THE INDONESIAN ECONOMY* 3-4 (2d ed. 2000).

53. In this latter period, most indicators of legal quality in Indonesia doubled, and exports of complex goods relative to simple goods to the countries in our sample increased by a factor of 14 including oil and 2.6 excluding oil. See Figures 1 and 2 below, respectively.

54. The extent to which the crisis may have been caused by weak legal institutions is disputed. For an argument and empirical evidence suggesting that the quality of institutions had an impact at least on the severity of the crisis in a given country, see Simon Johnson et al., *Corporate Governance in the Asian Financial Crisis*, 58 J. FIN. ECON. 141 (2000). For an argument highlighting the weaknesses in corporate governance institutions, see MICHAEL POMERLEANO, *THE EAST ASIA CRISIS AND CORPORATE FINANCES: THE UNTOLD MICRO STORY* (1998). Critically, however, see STEVEN RADELET & JEFFREY SACHS, *THE ONSET OF THE EAST ASIAN FINANCIAL CRISIS*, (Harv. Inst. for Int'l. Dev. Working Paper, 1998) available at <http://www2.cid.harvard.edu/hiidpapers/eaonset2.pdf> (arguing that financial panic was the primary culprit and that institutions were at best secondary). For a regularly updated list of articles analyzing the East Asian financial crisis, see *Basic Readings and References on the Causes of the Crisis*, available at http://www.stern.nyu.edu/globalmacro/asian_crisis/basic_readings.html.

countries in the region, such as Taiwan and Korea.⁵⁵ Yet, simple products such as petrol oil and agricultural products accounted for the overwhelming share of exports. As an oil producer Indonesia benefited substantially from the increase in oil prices between 1974 and 1982. Actual income from oil revenues frequently surpassed forecasted income—at times by a factor of four—for most of this period.⁵⁶ The oil boom may even have undermined investments in institution building, as the government had few incentives to invest there.⁵⁷ The major challenge came when oil prices declined in the early 1980s and investors' interest in Indonesia decreased. It was then that the government realized the need for providing a more attractive investment environment and for diversifying the export portfolio away from oil and other natural resources (i.e. simple goods) to manufacturing (i.e. complex goods).

Several important reforms were introduced in the early 1980s aimed at improving Indonesia's trading and investment position. As a result of these reform measures the share of manufactured exports (i.e. complex goods) increased from only seven percent of total exports in 1983 to over fifty percent by 1992.⁵⁸ The reform package that precipitated this change consisted of policy change, signaling devices, and institution building. By policy change we mean changes in trade and investment policies and related regulatory intervention, such as the lowering of import and export duties or the abolishment of investment licenses. While these reforms require institutional adaptations, their importance lies in opening or closing a country to trade and investment, not in building or reforming institutions that support trade relations. These reforms signal to the rest of the world that a country is willing to play by certain rules. Finally, institutional reforms consist of efforts aimed at improving the rule and functioning of legal institutions such as courts, customs authorities, and the like. Disentangling the impact of each of these reform measures on outcome is difficult, if not impossible. We find strong evidence that policy reforms as well as signaling affected Indonesia's trading patterns. They also affected the perception of the country's institution by the out-

55. Andrew MacIntyre, *Investment, Property Rights, and Corruption in Indonesia*, in *CORRUPTION: THE BOOM AND BUST OF EAST ASIA* 25 (J. Edgardo Campos ed., 2001). See Figures 3 and 4 and accompanying text at 28.

56. HILL, *supra* note 52, at 97–98.

57. For a general argument along these lines, namely that natural resources creates windfall profits that create disincentives for the ruling class to engage in sensible economic policies, see Jeffrey D. Sachs & Andrew Warner, *The Big Push, Natural Resource Booms and Growth*, 59 J. DEV. ECON. 43 (1999)

58. MacIntyre, *supra* note 55, at 171. Summarizing these reform measures and their impact on Indonesia's exports, Hill states "[t]here can be little doubt that the packages have transformed Indonesian industry from a protected, inward-looking sector to one which is increasingly outward-looking and internationally competitive." HILL, *supra* note 52, at 117.

side world. Sustaining the effect of signaling, however, seems to have required additional reform efforts, at least in the presence of evidence that weakened the original signaling effect.

In the early 1980s, Indonesia took a series of measures to streamline its licensing system and to re-liberalize imports and exports, which had been restricted in the 1970s. These changes marked a shift towards a more open trade and investment policy regime. Exporters were allowed to import inputs tariff-free or to get reimbursed for duties paid.⁵⁹ Quantitative restrictions were abolished in favor of tariffs in October 1986, and subsequent years witnessed a gradual reduction in tariffs. These policies were pursued well into the 1990s. In a 1998 report, the WTO attests the Indonesian government followed investment policies over the last twenty years that “have generally been beneficial to the export sector.”⁶⁰

These policy changes were accompanied by some institutional reforms, most notably the reform of Indonesia’s customs service. In 1985 a presidential decree reallocated the power to verify all imports with a value exceeding US\$5,000 at the point of export to a Swiss surveillance firm, SGS.⁶¹ The measure was taken to curb corruption in the customs apparatus. The reform was remarkable not only because it had a measurable impact on the flow of goods across borders,⁶² but because it demonstrated the government’s willingness to relinquish sovereign rights—the customs inspection of goods entering the country—in order to fight corruption. In a similar move, the cotton import monopoly was disbanded and its senior officials fired again under corruption allegations.⁶³ None of these measures had the impact of eliminating corruption or even reducing it substantially, and this is correctly reflected by the perception indices: perceived corruption actually worsened during that time.⁶⁴ They curtailed corruption where it was probably most sensitive to foreign traders and investors, however, and thus may have enhanced the overall credibility of Indonesia as an attractive destination for business.

Indonesia also ratified several international conventions. In 1980 it ratified CISG, and in 1982 the NY Convention.⁶⁵ Prior to that, the Dutch

59. HILL, *supra* note 52, at 116. MacIntyre, *supra* note 55, at 37.

60. See the WTO’s trade policy review for Indonesia, available at http://www.wto.org/english/tratop_e/tpr_e/tp94_e.htm at 3.

61. HILL, *supra* note 52, at 116. MacIntyre, *supra* note 55, at 37.

62. HILL, *supra* note 52, at 116 (stating that “the effect of the decree . . . was to greatly expedite the flow of goods through Indonesia’s airports and harbors, and to increase government tariff revenue”).

63. *Id.*

64. See Figure 2 below.

65. In ratifying the Convention, Indonesia opted for both of the reservations allowed by the Convention: the awarding arbitration tribunal must be situated in a country that is also a

Civil Code, which had remained in force after independence, stipulated that judgments of foreign courts (including arbitration courts) were not enforceable in Indonesia.⁶⁶ Indonesian courts continued to refuse to enforce foreign awards even after Indonesia became a party to the NY Convention, however, on the grounds that the implementing regulations had not been promulgated.⁶⁷ This was still the holding in a 1989 case, in which the Indonesian Supreme Court blocked the enforcement of an English arbitral award for a Bulgarian Shipping Company.⁶⁸ The formal justification for the delay in implementation was a dispute over which court would be responsible for administering foreign awards.⁶⁹ Only in 1990, i.e. ten years after Indonesia signed the NY Convention, did the Indonesian Supreme Court issue an implementing regulation, Supreme Court Regulation 1/90, codifying procedures for the enforcement of foreign arbitral awards. The delay in creating the institutional prerequisite for implementing the NY Convention suggests that the ratification of an international convention may not amount to much in real terms absent additional institutional reforms (without which the legal commitments undertaken therein cannot be implemented).⁷⁰ In this context, it is noteworthy that the measures for contract enforcement and expropriation risk both improved dramatically after 1989 and stabilized at a very high level thereafter.⁷¹

Under Regulation 1/90 the Indonesian Supreme Court was responsible for issuing the *exequatur* orders for enforcement of foreign awards. The initial nine applications for enforcing a foreign arbitral award to the supreme court between 1991 and mid-1993 were acted on reasonably punctually and most of them proceeded to execution without further problems.⁷²

The case *E.D. & F. Man (Sugar) Ltd. v. Yani Haryanto* (hereinafter *Man v. Haryanto*) was an exception. *Man v. Haryanto* was the first case submitted to the Supreme Court after Regulation 1/90 had been adopted. *Man* had won an arbitration award in London against Haryanto and had

party to the NY Convention; and the matter must be related to the field of "commercial" law as defined by national law. See *supra* note 42.

66. Karen Mills, *Judicial Attitudes to Enforcement of Arbitral Awards and other Judicial Involvement in Arbitration in Indonesia*, 68 *ARB. J. INST. ARB.* 106, 106 (2002)(quoting Article 463 of the Dutch Civil Code, the *Burgelijke Reglement of de Rechtvoordering*).

67. Robert N. Hornick, *Indonesian Arbitration in Theory and Practice*, 39 *AM. J. COMP. L.* 559, 574 (1991).

68. *Id.*

69. Mills, *supra* note 66, at 106.

70. See Katharina Pistor, *The Standardization of Law and Its Effect on Developing Economies*, 50 *AM. J. COMP. L.* 97 (2002) (on the use of legal harmonization as a formal signaling device).

71. See Figure 2 below.

72. Pistor, *supra* note 70, at 107.

even obtained an enforcement order (*exequatur*) from the Indonesian Supreme Court. Haryanto then brought an action in Jakarta district court, arguing that the contract was invalid, and that therefore the arbitration clause, which formed the basis for the London tribunal's authority to rule on the case, was void. The district court and a higher court found for Haryanto. Man appealed to the supreme court, which also ruled in favor of Haryanto, and nullified the *exequatur* order it had earlier issued on behalf of Man.⁷³ Under the NY Convention, it is possible to claim that the contract, including its arbitration clause, is void. The stipulation of the voidance exception is, however, rather narrow and allows only for voidance on the ground that the parties were "under some incapacity". Therefore, "the said agreement is not valid under the law to which the parties have subjected their agreement, or failing any indication thereon, under the law of the country where the award was made."⁷⁴ In other words, voidance under Indonesian law does not suffice. Nevertheless, the possibility of challenging the validity of the contract opens the door for local courts in the law enforcing country to set aside an award in a manner that is formally consistent with the convention. Moreover, the award could be set aside even when it violates the convention's spirit and at the same time hurts the reputation of that country.

Man v. Haryanto was an early setback for enforcement of foreign awards. Yet, Indonesia's record improved. In subsequent years, the Supreme Court rejected only one other application for *exequatur*, in *Sikinos Maritime Ltd. (Malta) v. P.D. Perdata Lot (hereinafter Sikinos v. Perdata)*. In this case, the Indonesian Supreme Court refused to enforce the London award on the grounds that the parties had not agreed to arbitrate.⁷⁵ Under the NY Convention the parties' written agreement to arbitrate disputes is a *sine qua non* for its application. The question whether the parties have in fact agreed to submit a particular matter to arbitration creates another potential loophole for the implementation of the convention.⁷⁶ In *Sikinos v. Perdata*, the Indonesian company P.D. Perdata Lot was able to use this loophole to its benefit at home, even though the London arbitration tribunal had found no reason to doubt the parties' agreement to arbitrate. The reported non-enforcement cases have been the exception rather than the rule since the adoption of the Supreme Court Regulation 1/90. Nevertheless, writing in 1998, Sudargo Gautama,

73. *Id.* at 112.

74. NY Convention, *supra* note 42, at art. V.1(a).

75. See Sudargo Gautama, *Indonesia*, in INT'L HANDBOOK ON COMM. ARB. 33 (1998).

76. NY Convention *supra* note 42, at art. V.1(c) (recognition and enforcement of an award may be refused if it "deals with a difference not contemplated by or not falling within the terms of the submission to arbitration, or it contains decisions on matters beyond the scope of the submission to arbitration . . .)."

the Indonesian jurist who represented Haryanto in the 1991 case, still describes enforcement of foreign awards as "difficult and time consuming."⁷⁷

Indonesia's reluctance to accept foreign settlements of disputes involving Indonesian companies is also reflected in a widely publicized case concerning the settlement of an investment dispute. Indonesia is not only a party to the NY Convention on arbitration, but also to the 1965 Washington Convention for the Settlement of Investment Disputes, which created the International Center for the Settlement of Investment Disputes (ICSID).⁷⁸ Unlike the NY Convention, which governs arbitration agreements among two non-state parties, ICSID governs disputes between States and "members" (i.e. legal or natural persons) of other States. By ratifying the convention, Member States commit to having a neutral tribunal preside over disputes with foreign investors who may not trust their domestic institutions. Indonesia's first ICSID arbitration was *Amco Asia Corporation v. Indonesia*.⁷⁹ The case involved the seizure of a Jakarta hotel which had been constructed by a U.S. and Hong Kong Company, and was to be operated in a profit sharing arrangement with a company affiliated with the Indonesian Army. Following the completion of the building, Amco was to lease the complex for several years to recoup its investments. This was preempted by P.T. Wisma, the Indonesian company with Army connections that owned the site of the buildings, taking over control of the complex in 1980. ICSID arbitration was filed in 1981, and Amco won an award in 1984. Indonesia contested the award. In a review process following ICSID procedures, the award was annulled in 1986.⁸⁰ Amco resubmitted the dispute in 1987, and received another award in 1990. Indonesia attempted to have the second award annulled in 1990, but this was denied and in 1992, that is over ten years after it had been filed, the dispute was finally resolved in Amco's favor.

The problems foreign parties have encountered with the Indonesian formal legal system are symptomatic of the relevance of formal law (or rather the lack thereof) during Indonesia's remarkable growth experience since the late 1960s. The problems also stem from the country's integration into the world economy since the mid-1980s. Writing in 1991, Cheryl Gray concludes a survey of the role of formal law in Indonesia

77. Gautama, *supra* note 75.

78. World Bank, *List of Contracting States and Other Signatories of the Convention*, available at <http://www.worldbank.org/icsid/constate/c-states-en.htm>.

79. *Amco Asia Corp. v. Republic of Indonesia*, 24 ILM 1022 (1983).

80. The problems that surfaced in this case have in part been attributed to inherent flaws of the ICSID Convention. See Monroe Leigh, *ICSID Arbitral Decision: AMCO Asia Corporation v. Republic of Indonesia*, 81 AM. J. INT'L. L. (1987).

asserting that it plays only a “minor” role in the Indonesian economy.⁸¹ Presidential decrees or administrative acts are used to regulate economic activities more or less on an ad hoc basis, but horizontal relations among non-state actors are resolved primarily informally. A widely cited—though never published—report by the World Bank on Indonesia’s legal system concluded that the overall impact was a state of “lawlessness.”⁸² And Gray herself characterizes the legal system as lacking “clear consistent and binding standards. Laws may be contradicted by lower-level decrees and regulations, and both may be contradicted by the day-to-day actions of administrators.”⁸³ Foreign legal assistance tried to improve the situation by introducing Western style legal reforms. The United States funded a major legal reform project called Economic Law, Institutional and Professional Strengthening in 1994.⁸⁴ Moreover, Indonesia’s formal accession to the WTO in 1995 triggered the overhaul of its commercial code and intellectual property protections. Yet, there is widespread agreement that the formal legal changes that were introduced in the early 1990s had little effect on how business was done in Indonesia. Informality and patronage systems continued to dominate formal legal arrangements.⁸⁵

Throughout this period of attempted reforms, successful reforms, and events that sometimes supported, but on other occasions undermined reform efforts, Indonesia’s trade patterns and most, though not all, perception indicators changed significantly. There was a dramatic change in the composition of Indonesia’s export portfolio between 1982 and 1992. The ratio of complex products to simple product exports (in U.S. dollar values) increased by 264%, making Indonesia one of the great increasers of complex goods exports in our sample.⁸⁶ We present the changes in the

81. Cheryl Gray, *Legal Process and Economic Development: A Case Study of Indonesia*, 19 *WORLD DEV.* 763, 771 (1991).

82. The report by McCawley is quoted extensively in HILL, *supra* note 52 at 118.

83. Gray, *supra* note 81 at 772.

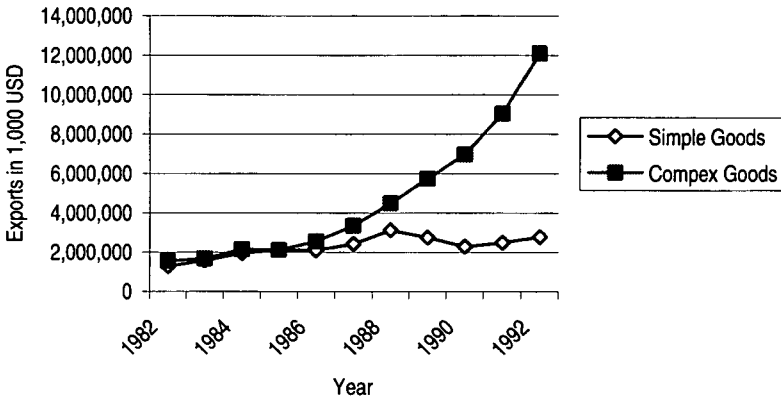
84. ELIPS was initially funded with US \$22 million. It was followed by ELIPS-II also designed primarily with a focus on commercial law, arbitration, etc., but was in the aftermath of September 11th increasingly used to help Indonesia combat terrorism. See Order 821: Indonesia Economic Law, Institutional and Professional Strengthening (ELIPS-II) Activity, 2002 Annual Report (2003), available at http://www.dec.org/pdf_docs/PDABX574.pdf.

85. Writing in 1996, Root contrasts the Indonesian example with other successful Asian economies. “Indonesia’s weak civil institutions have meant that the functioning of the economy is more dependent on social institutions than any other East Asian Economy.” See HILTON ROOT, *SMALL COUNTRIES BIG LESSONS: GOVERNANCE AND THE RISE OF EAST ASIA* 91 (1996). He describes Indonesia as a network economy that relies strongly on family ties as well as on relations between government and business that are often intermediated by key persons in the military. *Id.* at 103, 110.

86. This ratio does not include oil exports, which were subject to strongly falling prices during that time period. Including oil exports (Indonesia’s most important simple goods export), the change in this ratio is a staggering 1,406%. See *BMP supra* note 3, at Table 1b.

composition of Indonesia's exports on Figure 1. The graph indicates⁸⁷ that Indonesia experienced a major boost in exports of complex goods, while simple goods exports remained almost constant.

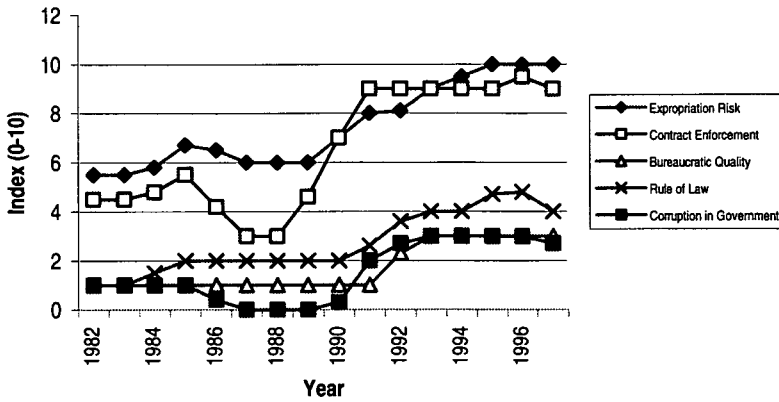
FIGURE I
EXPORTS INDONESIA BY CATEGORY



Regarding measures of the quality of Indonesia's institutions, we find substantial change on all dimensions (*see* Figure 2 below). Notably, in the early 1980s Indonesia's ranking on expropriation risk and contract enforcement was much higher than rule of law, bureaucratic quality and corruption. In fact, bureaucratic efficiency and corruption improved little until the early 1990s, and corruption even worsened initially. The decline in Indonesia's corruption ranking in the mid-1980s is notable particularly in light of the fact that in 1985 the customs service reform was implemented. A possible explanation for these somewhat contradictory trends could be that foreign observers realized that the reform was localized and did not address the endemic corruption. Yet, the custom service reform eased the burden of corruption on them and thereby reduced the risk of (indirect) expropriation.

87. Figure 1 includes data for the two types of single goods identified by Rauch, namely goods traded on international commodities exchanges, and goods with international reference prices. Rauch, *supra* note 22.

FIGURE 2
LEGAL PROFILE INDONESIA



The most striking development for our purposes is the volatility of the contract enforcement indicator until the early 1990s. Indonesia's ranking for contract enforcement improved in the first half of the 1980s—after Indonesia opened its borders and ratified the NY Convention. This was, however, followed by a steep decline until 1988. This change in perception may have been the result of Indonesia's poor enforcement record, as evidenced by the refusal of Indonesian courts to enforce foreign arbitral awards prior to 1990, and by the highly publicized *Amco* case discussed above.⁸⁸ By the early 1990s the downward trend was reversed by an even steeper upward trend. This change in perception data precedes the Indonesian Supreme Court's issuing of implementing regulations for the NY Convention, but may have anticipated this change in response to Indonesia's previous enforcement record. Other factors that may account for the reversal of the trend in 1988 were Indonesia's adoption of a package of regulatory reforms, including easing of foreign investment rules and capital markets as well as new banking regulations. These formal legal changes have been attributed to Indonesia's shift from being primarily an oil exporter to a major manufacturing exporter.⁸⁹ These changes were introduced by government regulations. A further set of investment and commercial laws directed not only at liberalizing economic activities, but creating an infrastructure to

88. See *Amco Asia Corp. v. Republic of Indonesia*, *supra* note 79.

89. See JOHN BALL, *INDONESIAN LAW AT THE CROSSROADS* (2000) (1996). These legal changes were part of a liberalization package introduced in October/November 1988. According to Ball, the government "simplified foreign investment rules, making it easier and more attractive for foreign investors to invest in Indonesia, freed-up inter-island shipping, and opened up steel and plastic imports to private traders." *Id.* at 7.2.

support growing commercial activities, was passed in 1994-95—only two years before the East Asian financial crisis, and thus too early to fully implement the reform efforts.⁹⁰

With hindsight, Indonesia's scores on the perception indices may still have been far too high. In 1997 the East Asian financial crisis triggered the collapse of the Suharto regime and resulted in capital flight, economic contraction, and substantial violence. Few of these events had been anticipated. Nevertheless, the actual behavior of foreign entrepreneurs suggests that they were well aware that many of their investment decisions had been based on signaling effects. Accordingly, they quickly reversed their risk assessment once real world events proved them wrong. Consequently, the debate over whether institutional flaws or investor panic caused the crisis could be resolved as follows:⁹¹ Investors panicked during what may have been only a temporary economic downturn, because they were aware that the existing institutional arrangements might not be sustainable.⁹² Following the crisis, Indonesia has made important efforts to improve institutional quality once more relying primarily on formal legal change. Examples include the adoption of a new bankruptcy⁹³ and corporate law, and a series of banking legislation.⁹⁴ Many of these changes were imposed by IMF loan conditions. In contrast to international conventions, conditions for IMF loans can be enforced by withholding loan payments. Yet, the adoption or even the enactment of a new law is only a weak indicator for real institutional change, as formal laws may be ignored or implemented differently than anticipated. Some reform efforts, however, have gone beyond statutory change. Most notably, Indonesia has begun to overhaul its judiciary. The executive was restrained by judicial independence rules from firing partisan corrupt judges, and has instead reverted to "packing" the courts with non-career judges drawn from academia and the legal profession. Whether these reforms will enhance the role of law and legal institutions in Indonesia remains to be seen. Recent media reports suggest that this reform may stop short of the Indonesian Supreme Court as parliament is apparently preparing a law that reserves seats on the supreme court only for career judges.⁹⁵

90. See *id.* at 7.121 (specific discussion on these reforms).

91. See *supra* note 54.

92. *Id.*

93. Stacey Steele, *The New Law on Bankruptcy in Indonesia: Towards a Modern Corporate Bankruptcy Regime*, 23 MELB. U. L. REV. 144 (1999).

94. Including a new Banking law, and a Central Bank Law. See the WTO's trade policy review for Indonesia cited *supra* note 60. See also BALL, *supra* note 89.

95. See *Indonesia: Judicial reform faces Parliamentary hurdle* (ABC Radio Australia broadcast), available at <http://www.abc.net.au/ra/asiapac/programs/s1024927.htm>.

The impact of these reform efforts on the perception of the quality of Indonesia's institutions remains unclear. While rule of law rankings have improved again since 1998,⁹⁶ investors remain skeptical about corruption⁹⁷ and political stability.⁹⁸ There is little objective evidence that the investment environment is indeed less secure than it was in 1997 just before the crisis. As our data suggest, however, perception matters. The real problem for Indonesia and other countries whose credibility as attractive trading partners or investment destinations has been undermined is that simple signaling devices are less effective now for attracting foreign business.

VII. MEASURING INSTITUTIONAL QUALITY WITH PERCEPTION DATA

Our empirical results and our case study analysis rely heavily on perception indices of institutional quality; thus, this raises the question of whether or not these indices are appropriate measures. In a recent paper, Glaeser et al. criticize the use of perception data for this purpose.⁹⁹ Specifically, they ask whether subjective assessments of institutions do indeed measure what they call "objective institutional rules." They also raise the issue that perception indicators may be highly endogenous, i.e. that respondents to these surveys allocate higher scores to relatively rich countries that may or may not have good institutions.¹⁰⁰ Applied to our focus on trade, the latter concern suggests that if countries that score well on perceptual institutional measures trade more with the rest of the world, they may in fact be capturing the importance of national wealth rather than institutions on trade. Drawing this concern to its conclusion but reserving causality, our results would then be simply driven by the impact of trade on national income and wealth.

96. The most recent data on institutional quality are available from the World Bank's Governance Research database, available at <http://www.worldbank.org/wbi/governance/govdatasets?>. The indexing differs from the ICRG data we have used in our regression analysis and in Tables 1a and 1b. However, they use similar survey instruments. According to these data, using a 0 to 100 scale, Indonesia occupied the 39.8th percentile rank on rule of law in 1996 the year before the crisis, went down to 14.1 in 1998, but scored again at 23.2 percentiles in 2002.

97. According to the World Bank's data base, Indonesia was at 35.3 percentiles in 1996, but declined to 6.6 percentiles in 1998 and is still at 6.7 percentiles in 2002 (after a small increase to 8.7 in 2000). *Id.*

98. This variable was not separated out in the ICRG indices. According to the World Bank's data, political stability was ranked 30.5 percentiles in 1996, 9.1 in 1998, 3.0 in 2000 and 12.4 in 2002. *Id.*

99. Glaeser et al., *supra* note 4.

100. *Id.* at 7.

There are two aspects to Glaeser et al.'s criticism. First, they indirectly claim that it is doubtful that the experts surveyed are able to accurately report on the different dimensions of legal quality across countries. We investigate the validity of this criticism by simply comparing correlations between perception indices and the ratification of the NY Convention on the one hand, and between perception indices, GDP growth and trade openness on the other. Uniformly high correlations among all these variables would be evidence in favor of their criticism as it suggests that the respondents to surveys querying them about institutional quality are unable to draw distinctions between the different aspects of institutions. Second, Glaeser et al. argue that causality runs from trade to the perceived quality of institutions, because trade can in fact cause national income (which is captured by the perceptual measures) to increase. Our regression results in tables 1a and 1b do not support this claim; when we regress the various perceptual measures of institutions on a set of time varying covariates, we find that the coefficient on openness is very small and statistically insignificant in all cases. We will present several arguments why reverse causality may not be present, and why it is quite reasonable to interpret perception data as indicators of the perceived contract and enforcement risk of transacting with a particular country. Thus, these perception indices largely reflect both formal change and its actual implementation. Second, we argue that this interpretation is consistent with the interpretation of institutions as "sustainable systems of shared beliefs."¹⁰¹ This interpretation is more relevant for assessing institutional quality from the perspective of entrepreneurs, but also for students of comparative institutions, than indicators of formal legal change.

In order to evaluate the criticism that the perceptual indices measure the quality of institutions poorly, we analyze correlations between the various perception indices and the correlations between these indices and indicators for institutional change and economic outcomes (see Table 2).

101. AOKI, *supra* note 45.

TABLE 2
PERCEPTION INDICES AND INDICATORS FOR INSTITUTIONAL
CHANGE AND ECONOMIC OUTCOMES

| | Corruption in Govmt. | Rule of Law | Bureau-cratic Quality | Contract Enforcement | Expropriation Risk | NYC | UN-Sales Conv. | NYC without res. | GDPper capita |
|--------------------------|----------------------|-------------|-----------------------|----------------------|--------------------|-------|----------------|------------------|---------------|
| Rule of Law | 0.82 | | | | | | | | |
| Bureaucratic Quality | 0.84 | 0.78 | | | | | | | |
| Contract Enforcement | 0.34 | 0.38 | 0.37 | | | | | | |
| Expropriation Risk | 0.73 | 0.80 | 0.77 | 0.44 | | | | | |
| NYC | 0.32 | 0.28 | 0.46 | 0.20 | 0.43 | | | | |
| UN-Sales Convention | 0.31 | 0.38 | 0.32 | 0.20 | 0.33 | 0.27 | | | |
| NYC without reservations | 0.09 | 0.09 | 0.19 | 0.06 | 0.12 | 0.41 | 0.23 | | |
| GDP per capita | 0.77 | 0.77 | 0.76 | 0.37 | 0.73 | 0.30 | 0.36 | 0.16 | |
| Openness | 0.26 | 0.30 | 0.18 | 0.24 | 0.25 | -0.02 | -0.01 | -0.11 | 0.29 |

Note: Table 2 reflects the correlation between measures of legal quality, the signing of international treaties and economic variables across countries and over time, 1984–1997 (466 observations).

Openness is defined as the share of exports + imports in GDP.

GDP per capita is measured at Purchasing Power Parity exchange rates.

NYC = New York Convention.

NYC without reservation= countries who ratified the convention without making any reservations.

We find that most perception indices are highly correlated with each other, with the notable exception of contract enforcement. This suggests that countries with good institutions are generally good at most dimensions of legal quality, which is what one should expect. The exception of contract enforcement suggests that participants in the survey are capable of distinguishing between the different dimensions of institutional quality. The correlations between openness to trade (measured by imports plus exports as a share of GDP) and the perception indices are quite moderate and approximately at the same level as the correlation between openness and GDP per capita. As we have seen in Tables 1a and 1b, there is no indication that increased openness per se leads to an upward bias in the evaluation of the quality of institutions. Further, we don't see particular evidence for that connection in the correlation analysis either.

It is also quite noteworthy that the correlation between signing the NY convention and the perception data is at similar levels, with contract enforcement, the aspect most closely associated with the goals of the NY Convention, actually exhibiting the lowest correlation with ratifying it. The same is true for the CISG. Interestingly, however, there is almost a zero correlation between openness and signing a convention.

This simple inspection of correlations casts some doubt on the argument that experts surveyed cannot distinguish accurately between the different dimensions of legal quality. It does not, however, suggest that experts are unable to distinguish between national wealth and quality of institutions. But it is also not surprising that many richer countries can afford to build and to enjoy better quality institutions. Nevertheless, the case of Indonesia suggests that simply being able to afford good institutions does not necessarily mean that a country will in fact develop these institutions. An inspection of Figure 2 suggests that in the case of Indonesia, where income per capita grew rapidly during our sample period, the perceived quality of perceived institutions had a non-monotonic dynamic during the same period. We therefore see little evidence from the data that the survey results are primarily measures of national wealth.

The simple correlations between openness and signing a convention are consistent with the view that international institutions that govern trade do not automatically increase openness *per se*. As shown in the previous section, however, they influence trade indirectly: Ratifying an international convention sends a signal that domestic institutions are reliable. This apparently changes traders' perceptions about the reliability of a country, which in turn influences their trading behavior. While this does not eliminate the possibility that endogeneity may be present, it suggests that it might be less severe than suggested by Glaeser et. al. But trade is only one channel through which surveyed experts receive information about a country's quality of institutions. Only to the extent this trade experience influences a country's ranking in perception indices may reverse-causality (from trade to quality of institutions) be potentially problematic. In the context of international trade, we do not, however, find any effect of openness on our perception indices (*see* Tables 1a and 1b). These results suggest that the causality is more likely to run from perceived institutional quality to economic outcome.

The debate about appropriate measures for institutional quality also raises the more fundamental question of what institutions are and how to measure them. There is a strong tendency in the literature on the new

comparative economics¹⁰² and by multilateral institutions¹⁰³ to use formal legal indicators for measuring institutions and making inferences about institutional quality by analyzing the impact of such rules on economic outcomes.¹⁰⁴ Others have pointed out that formal law found on the books may not be very effective and that absent a better understanding of the mechanisms by which formal law translates into particular economic outcomes, such inferences are highly problematic. These arguments rest on evidence suggesting that there is little relation between formal law on the books and institutional quality as measured by perception indices.¹⁰⁵ The weak effects Glaeser et. al. find in their regression analysis for changes in the law on the books is consistent with this view. This is the case particularly when formal rules are not implemented, as we have shown in the case study of Indonesia. Consequently, the potential measurement error involved by using formal rules on the books for assessing institutional quality as suggested by Glaeser et al. may actually be quite substantial. Ideally, we would like to obtain data both on formal changes as well as the quality of their implementation. This is not available, however. Perception data reflect the combination of new rules and the quality of their implementation combined with how well these changes are communicated, which may ultimately be what matters for traders. We conclude that from our perspective, perception data is still the best available measure for assessing the quality of a country's institutional environment.

More generally, there is increasing skepticism about the notion that it is possible to identify a particular set of institutions to promote economic growth and development irrespective of initial conditions in different countries. As Rodrik argued in a recent paper, secure property rights seem to be fundamental for long-term economic development and growth. There are multiple ways in which property rights can be secured,

102. Simeon Djankov et al., *The New Comparative Economics*, 31 J. COMP. ECON. 595–619 (2003); Glaeser et al., *supra* note 4.

103. WORLD BANK, *DOING BUSINESS IN 2004* (2004). The Report presents a host of “objective” indicators ranging from formal legal protections of creditor and shareholder rights to information on the number of days it takes to register a business for most countries around the world.

104. Most extensively used are formal legal indicators of shareholder and creditor rights protection and their impact on financial market development. See Rafael La Porta et al., *Legal Determinants of External Finance*, 52 J. FIN. 1131–1150 (1997); Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECON. 1113–1155 (1998); Ross Levine, *The Legal Environment, Banks, and Long-Run Economic Growth*, 30 J. MONEY, CREDIT, AND BANKING 596–613 (1998).

105. See Katharina Pistor et al., *Law and Finance in Transition Economies*, 8 ECON. OF TRANSITION 325–68 (2000); Daniel Berkowitz et al., *Economic Development, Legality, and the Transplant Effect*, 47 EUR. ECON. REV. 165–95 (2003); Katharina Pistor et al., *The Evolution of Corporate Law*, 23 U. PA. J. INT'L. ECON. L. 791–871 (2002).

however, and the formal legal system is only one of them.¹⁰⁶ Other means by which property rights may be secured include informal norms,¹⁰⁷ enforcement mechanisms within business networks,¹⁰⁸ or government assurances, including formal guarantees.¹⁰⁹ As Rodrik put it, “the important point is that effective institutional outcomes do not map into unique institutional designs. And since there is no unique mapping from function to form, it is futile to look for non-contingent empirical regularities that link specific legal rules to economic outcomes.”¹¹⁰ Measuring institutional quality with perception indicators is consistent with this line of reasoning. We also contend that this “bottom line” approach is precisely what foreign entrepreneurs are looking for when they decide to trade or not to trade with a particular country. The fact that perception indices have been compiled by companies that make a living of selling these data to potential traders and investors certainly suggests that investors are willing to pay for this information. Because information is scarce for most countries, this may not be surprising. Moreover, it does not imply that investors would not be willing to pay more for objective measures of institutional quality, were that information available. Still, entrepreneurs are likely to be interested primarily in whether they are entering a hostile or friendly business environment. While our data suggest that they find formal legal commitments reassuring, they also indicate that at the investing stage, they will pay less attention to the content or implementation of these commitments.

106. See Dani Rodrik, *Getting Institutions Right* (April 2004), available at http://ksghome.harvard.edu/~drodrik/ifo-institutions%20article%20_April%202004_.pdf; see also Dani Rodrik, *Institutions for High Quality Growth: What They Are and How to Acquire Them*, STUDIES IN COMP. INT’L DEV. 3 (Fall 2000).

107. Informal norms are common in legally-sophisticated countries. See Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, AM. SOC. REV. 55 (1963).

108. An interesting study finds that foreign investors in India prefer investments in business groups over investments in unaffiliated companies despite the fact that groups have a reputation for less transparency. See Tarun Khanna and Krishna Palepu, *Emerging Market Business Groups, Foreign Investors, and Corporate Governance*, in CONCENTRATED CORPORATE OWNERSHIP, 265 (Randall K. Morck, ed., 2000). Their interpretation suggests that groups offer important assurances to foreign investors in an environment where political lobbying is crucial for economic success. See *id.* at 272.

109. Such guarantees are particularly important for large-scale project financing. See Benjamin Esty, *Creditor Rights, Enforcement, and Debt Ownership Structure: Evidence from the Global Syndicated Loan Market (2002)* (unpublished manuscript) available at http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID320226_code020730600.pdf?abstractid=320226&mirid=1. Note however that the World Bank offers similar guarantees for investors to developing countries through MIGA, the Multilateral Investment Guarantee Agency. See generally <http://www.miga.org> (2005).

110. See Rodrik, *Getting Institutions Right*, *supra* note 106, at 9.

VIII. CONCLUSION

In this paper we have presented evidence on the relation between institutions and patterns of international trade. We measured institutions and institutional change by using perception data of institutional quality. Our findings suggest that the perceived quality of domestic institutions matters for a country's participation in international trade. Domestic institutions reduce international transaction costs. High quality institutions indicate that foreign investors are reasonably assured that they can enforce a contract by using legal institutions in that country, if need be. Given that complex goods are more prone to disputes for reasons related to incompleteness of contracts, higher scores on institutional quality increase a country's propensity to export complex goods. By contrast, countries that fail to improve institutional quality may wind up in a low equilibrium trap of exporting primarily simple rather than complex goods with relatively limited prospects of diversifying into more lucrative complex goods markets. In addition, high quality institutions reduce transaction costs at home, which again benefits complex goods more than simple goods.

We also found that international institutions matter. Countries that have ratified the NY Convention, for example, are able to improve their position in international trade flows, even when domestic institutional quality has not caught up. In particular, ratifying the NY Convention enhances a country's trade in complex goods. This suggests that to the extent countries can credibly commit to complying with international norms, international law may substitute for weak legal institutions.

The channel through which international institutions affect trade flows, however, is indirect. Ratifying an international legal instrument signals a country's willingness to play by the rules set forth therein. This influences the perception of firms from that country as reliable trading partners. Indeed, our results indicate that ratifying the NY Convention changes both the perception of institutional quality and trade flows. These changes occur even in the absence of real reform. Sustaining these effects requires a certain level of compliance, however. Our case study of Indonesia revealed that while ratifying the NY Convention may send a strong signal, failure to comply with its rules can undermine a country's credibility as a trading partner. Regaining credibility may require more than just signaling. Instead, it might call for tangible reforms at home and a track record of implementing them. This interpretation of our results is consistent with the notion of institutions as "sustainable systems of shared beliefs."¹¹¹ Signaling affects perceptions, which in turn

111. AOKI, *supra* note 45.

influence behavior. This may result in a positive feedback loop. As long as both parties play by the rules, the system becomes self-sustaining. Should one party, however, take actions that undermine the signaling effect, the system may collapse.

Finally, because our evidence employs time-varying perception indices of institutional quality, we checked for the extent to which this data pick up quality of institutions versus national wealth as suggested by Glaeser et al.¹¹² Using simple correlation and regression analysis, we found evidence that suggests that these perception measures reflect domestic enforcement of contracts and property rights and the quality of domestic legal institutions fairly well. And, they also pick up, albeit imperfectly, a country's willingness to abide by international rules of arbitration in international trade. It is important to interpret them not as measures of formal changes, however, but as the overall evaluation of legal institutional arrangements.

112. See Glaeser et al., *supra* note 4.