International Institutions and Spillover Effects: How Financial Cooperation Disrupts Global Trade

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Abstract

This paper examines the spillover effects of global governance by looking at how international financial regulation has impacted global trade. In the aftermath of the 2008 global financial crisis, large economies imposed new rules on the banking sector that unintentionally reduced the availability of bank-intermediated trade financing in weaker economies. While models of international trade often ignore financial constraints, the policy community estimates a USD 1.5 trillion annual gap in trade financing. Using the standard gravity model of trade, I show that international financial cooperation is associated with significant declines in exports when the exporting country has characteristics associated with trade financing dependence. My findings suggest international financial cooperation, heralded as a great post-crisis success, has damaged economic opportunities in some of the most vulnerable countries. It also highlights the need for scholars to consider the spillover effects of cooperation when evaluating the impact of global governance.

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1 Introduction

How do international institutions affect trade? This has been a central question in the study of political economy for several decades. Scholars have examined the impact of the World Trade Organization on trade (Goldstein, Rivers and Tomz, 2007; Mansfield and Reinhardt, 2008; Baccini and Kim, 2012), analyzed how institutional design features like escape clauses may promote cooperation (Rosendorff and Milner, 2001; Kucik and Reinhardt, 2008; Pelc, 2009), and highlighted the ways in which international institutions reshape domestic politics (Mansfield and Milner, 2012; Davis, 2012). We know that trade institutions can reduce information asymmetries (Mansfield and Reinhardt, 2008; Hoekman and Mavroidis, 2000) and provide opportunities for issue linkage (Davis, 2004). However, the majority of theoretical and empirical research on this subject focuses on analyzing the effects of international agreements that are specifically targeted toward trade and ignores spillover effects from cooperative arrangements in other areas like finance.

This article is motivated by several empirical observations that complicate the common political economy approach. First, about a third of all trade is dependent upon bank-intermediated financing (Bank for International Settlements, 2014). Banks provide capital to smooth export risk and ease payment delays in lengthy transactions. As a result, trade flows are directly impacted by how a government regulates its banking sector. Second, since the 2008 financial crisis, large economies have pursued significant financial regulatory coordination through international "soft law" bodies (Shaffer and Pollack, 2009; Helleiner, 2010; Kirton, Larionova and Savona, 2010; Brummer, 2011). These intergovernmental standard setters lack formal charters or treaties, but nevertheless their guidelines have altered how the banking sector does business. Efforts to reduce financial risk and combat illicit financing have led to the contraction of the global banking network. Large international banks have terminated thousands of correspondent accounts, particularly in smaller economies (International

Financial Corporation, 2016).

I argue that international cooperation on financial regulation has created spillover effects that negatively impact international trade. To explain this link between financial standards and trade flows, I draw on an emerging literature in economics on trade financing. With small exceptions, the sources of financing for international trade have received relatively little attention in political science.[1] Yet access to financing is a significant barrier to trade in many countries – a 2019 Asian Development Bank survey estimated a USD 1.5 trillion global trade finance gap that affects both development and investment flows.[2]

While trade financing can take several different forms, I focus in particular on banks as sources of possible capital for exporters. Global banking relationships underpin much of international trade. While standard trade models assume an exchange of goods that is impeded by trade barriers and geography rather than financing, in reality, shipping goods between countries is risky and takes time. Trade partners must agree not only on the quantity and price of goods, but also on the timing of payments. Compared to domestic exchanges, international trade creates longer lags between production and payment – Amiti and Weinstein (2011) estimate a median delay of approximately two months.[3] These lengthy gaps in time can create financial difficulties in particular for smaller and newer firms, as well as for more established firms in countries that do not have import-export banks.

To address such challenges, importers and exporters may rely on bank financing, which is often provided in the form of a letter of credit. Typically, the bank of the buyer (importer) issues this letter, stipulating a written commitment to pay the bank of the seller (exporter) under certain conditions. This system facilitates trade because it "substitutes the creditwor-

[1] Exceptions include Moravcsik (1989), Kaplan (2016), and Blackmon (2017).

[2] Asian Development Bank, "2019 Trade Finance Gaps, Growth, and Jobs Survey," September 2019, retrieved from: `https://www.adb.org/publications/2019-trade-finance-gaps-jobs-survey`, accessed on 10 June 2020.

[3] See Hummel (2001) or Djankov, Freund and Pham (2010) for detailed analyses of time lags in international trade.

thiness of a bank for the creditworthiness of the buyer" (WTO, 2016, 11). With a letter of credit, exporters are able to obtain working capital from a local bank to cover production costs, and to be paid upon receipt at a future time. When the goods are delivered, the importer either pays the issuing bank immediately or at an agreed upon maturity date in the future. Although letters of credit are used across all countries and types of firms, they are particularly important for facilitating trade in times of higher default risk and uncertainty (Niepmann and Schmidt-Eisenlohr, 2017*a*). Letters of credit are also essential for firms doing business with firms in countries with poor contract enforcement (Caballero, Candelaria and Hale, 2016) – by issuing a letter of credit, banks assume the financial risk of lack of payment or failure to deliver goods.

A bank's ability and willingness to engage in global transactions like trade financing depends on financial regulation. In the aftermath of the 2008 global financial crisis, international institutions imposed a wide array of new rules on the international banking sector. But the institutions issuing these new standards were focused on reducing financial risk and paid little consideration to the potential implications of their actions for international trade. As financial rules have tightened, it has become more difficult and costly for banks to do business with low-yield customers. Many exporters in developing countries cannot obtain letters of credit or easily access US dollars or Euros.

Global surveys of banks suggest that the most common obstacle to trade financing is know-your-customer requirements related to preventing illicit financing.[4] Banks spend billions of dollars meeting these requirements and as part of their compliance strategies, avoid relationships with high-risk countries. For this reason, I theorize that when an international institution publicly identifies a country as being higher risk for illicit financing, this will affect exports if the listed country is heavily dependent on trade financing.

[4]See, for example, Asian Development Bank, *2019 Trade Finance Gaps, Growth, and Jobs Survey*, September 2019, retrieved from: `https://www.adb.org/publications/2019-trade-finance-gaps-jobs-survey`, among many others.

I provide a myriad of evidence to support the relationship between international financial cooperation and trade flows. Using a standard gravity model of trade, I find that when a country is publicly identified as having deficient laws and regulations on combating illicit financing, it experiences a significant decline in exports but this effect is restricted to dyads where exports are most likely to depend on trade financing. Following previous research (Caballero, Candelaria and Hale, 2016), I proxy trade financing dependence with data on a country's level of contract enforcement. When exporters are located in a country with poor contract enforcement, importers are more likely to demand a bank-issue letter of credit to help mitigate risk. As further evidence that trade financing is the underlying casual mechanism, I show that this relationship is most pronounced in dyads where countries are separated by great distance (a second metric associated with trade financing dependence). I also conduct a series of tests to assess whether the negative relationship could be spurious. I subset the sample to include only dyads where the exporting country as eligible for listing and run the analysis on an imputed sample to deal with concerns about missing data. The results across all tests suggest international financial cooperation has had negative spillover effects on global trade flows.

2 Trade Financing: A Hidden Constraint

Common explanations for trade between countries highlight a mix of economic and political factors. Standard trade models focus on relative differences in factor endowment, distance, and levels of economic development. Domestic factors such as regime type have been shown to affect trade between countries (Morrow, Siverson and Tabares, 1998; Mansfield, Milner and Rosendorff, 2000), as have international factors like membership in international organizations (Goldstein, Rivers and Tomz, 2007; Mansfield and Reinhardt, 2008) and interstate

war.[5] Although trade financing is a well-known facilitator of trade, few trade models explicitly account for this variable or theorize about how it might impact trade flows.

Trade financing is often called the "lifeline" of international trade.[6] Because trade is inherently risky and involves long delays between shipment and payment, about 90 percent of international trade transactions rely on some type of intermediate financing or credit (International Trade Centre, 2009). Typically, trade financing is either provided by banks, which issue credits or short-term loans, or by firms themselves through some type of contractual arrangement (Auboin and Meier-Ewert, 2003). In the former case, banks facilitate trade in two ways – by providing access to capital for companies to expand business relationships and by helping mitigate the risk of nonpayment. In the latter case, firms often draw on long-established business relationships to create predictable production and payment schedules.

Because trade finance is often facilitated by banks, international and domestic banking regulations can have indirect effects on international trade. The 2008 financial crisis led to severe trade financing shortages as crises spread across banks (WTO, 2016). A March 2009 survey of major banks by the International Monetary Fund (IMF) and the Bankers' Association for Finance and Trade - International Financial Services Association found that 70 percent of banks reported that the price of letters of credit had risen in the past year. Banks in both advanced economies and emerging markets also began to tighten their lending guidelines with respect to counter-party banks (Dorsey, 2009). Although such disruptions to trade finance were widespread, they largely affected firms in developing economies – a trend that has continued.[7] Within countries, small and medium-size enterprises (SMEs) have been disproportionately hurt by the contraction of trade financing, with 58 percent of

[5]See, for example, Long (2008), Simmons (2005), or Glick and Taylor (2010).

[6]The policy community has viewed trade financing in this way since at least the early 2000s. A 2003 publication by the WTO, for example, writes "The expansion of trade depends on reliable, adequate, and cost-effective sources of financing, both long term...and short term, in particular trade finance. The latter is the basis on which the large majority of world trade operates..." (WTO 2003)

[7]There are also differences in trade financing gaps across regions, where the Asia/Pacific region is the larger source of requests for trade financing and rejections by banks (Di Caprio, Kim and Beck, 2017).

SMEs reporting that their trade finance requests were rejected (WTO Working Group on Trade, Debt and Finance, 2017).

The remainder of this section expands upon the relationship between banking regulation, trade finance, and trade flows. It begins by describing exactly how trade finance facilitates trade, with particular attention to exports. Exporters are sensitive to financial shocks due both to the relatively higher working capital requirements associated with international trade and the risk of default (Amiti and Weinstein, 2011). After describing how banks facilitate trading relationships, I then discuss how banking relationships themselves facilitate access to capital.

2.1 How Trade Financing Faciliates Exports

Transporting goods across borders requires time and money, and is inherently risky. Trading partners must agree not just on the quantity and price of a good, but also on a payment schedule. Exporters must find the capital to produce the goods in advance of shipment, and face the risk that an importing company will delay payment or fail to pay entirely. Importers run the risk that goods will fail to arrive on schedule or at all. Although all domestic and international transactions are subject to similar contractual problems regarding payment, financing is a particular problem for companies engaged in international trade. Regulatory and border procedures often create delays in transport (Djankov, Freund and Pham, 2010); indeed, Amiti and Weinstein (2011) estimate such procedures result in a median delay of about two months. As a result, firms that engage in international trade are likely to have higher working capital requirements than domestic firms.

To finance the time gap between production and payment, and to counterbalance such risks, companies use a range of different forms of trade financing. If the transaction takes place solely between the importer and the exporter, there are two general types of trade financing: exporter finance (open account) and importer finance (cash in advance). In an

open account arrangement, an exporter produces the goods in advance of payment and an importer pays after receiving the goods. The exporter is thus responsible for pre-financing production (either through a bank loan or through cash on hand). Alternatively, firms may agree on a cash-in-advance arrangement, where the importer pays the exporter in advance of production. Both exporter and importer finance create obvious commitment problems. For an open account arrangement, if the importer fails to pay the agreed price for the goods after receiving and selling them, the exporter will suffer a significant loss (Schmidt-Eisenlohr, 2013). For cash-in-advance, the importer is absorbing the risk that the exporter will receive payment but fail to deliver the goods.

Banks offer a variety of products to mitigate such risks. An exporter may purchase export credit insurance to protect against the risk of non-payment by a third party, or may request trade lending (also known as export working capital lending) to cover the cost of producing the goods. An exporter may use a bank product called "documentary collection" to instruct the bank to speed up the collection process of securing payment from the importer (Dorsey, 2009). Finally, the importer may request its bank issue a letter of credit – a contractual guarantee that the issuing bank will pay the contract value to the exporter if certain conditions are fulfilled. The letter of credit will be sent to the exporting company, and in most cases, to a local bank (in the exporting country), which will confirm the obligation. The local bank acts as a second-line risk mitigator – if the importing country's bank defaults, the exporter's bank agrees to still pay the exporter.[8]

Bank-intermediated trade finance (henceforth referred to as simply "trade finance") supports about one-third of global trade (Bank for International Settlements, 2014). Although firms in many countries rely on trade finance to varying degrees, firms in emerging market economies are particularly dependent on bank financing to support trade (Bank for Inter-

[8]For a more detailed discussion of trade financing and letters of credit, see Niepmann and Schmidt-Eisenlohr (2017*b*).

national Settlements, 2014). While most high-income countries have government-run or associated export-credit agencies to facilitate export financing and help companies manage risk, such institutions are rare among developing economies.[9] Moreover, trade partners tend to view contractual relationships with firms in developing countries as riskier than with firms in wealthier countries, and are often only willing to engage in such transactions with some kind of bank guarantee of payment. The willingness of global banks to do business with banks in low-income countries thus becomes a key determinant of export-led growth.

2.2 The Determinants of Bank-to-Bank Relationships

Banks facilitate trade finance transnationally through bank-to-bank relationships. In many cases, banks do not have branches or subsidiaries with a physical presence in the exporting country. Instead, banks rely on *correspondent banking relationships*, whereby a bank in one country will open an account with another bank located in a different country. The system of correspondent banking is "as old as international finance itself, dating back to the earliest promissory notes and letters of credit written by banks in classical times" (*Poor correspondents*, 2014, 65).

Historically, banks have maintained broad networks of correspondent banking relationships, but this tendency has changed in recent years. In a 2015 World Bank survey, 75 percent of large global banks reported that they had withdrawn from correspondent banking relationships, and 60 percent of local banks reported such a decline (Erbenova et al., 2016). Account closures have particularly affected smaller jurisdictions in regions like Africa, the Caribbean, and Asia-Pacific. In a small country, account closures can be particularly serious because often only a small number of banks operate within the country, and therefore the termination of correspondent banking relationships is likely to raise the already-high cost of

[9]For a helpful discussion of the role that export-credit agencies play in facilitating international trade, see Blackmon (2017).

financial services, including remittances (Alwazir et al., 2017).

Why have banks suddenly begun to withdraw from these relationships? As governments have adopted new regulations that require banks to verify the identities of their customers (and increasingly their customers' customers), the costs of doing business overseas have increased. Government regulators in a number of countries have also begun to levy large fines against banks that fail to comply with such policies.[10] To avoid such penalties and the possibility of reputational damage, banks have increasingly cut back on correspondent banking services. A recent report by the Bank for International Settlements found that banks sever ties in part because countries are perceived as too risky or because foreign banks have products or customers that are viewed as posing a higher risk of money laundering or terrorist financing (Bank for International Settlements, 2016, 1). Bank relationships that facilitate trade financing are thus tied to an entirely separate cooperation problem: combating illicit financing.

3 International Finance in the Post-Crisis Era

Two international institutions have had a significant impact on how states regulate their banking sectors in the post-crisis era: the Basel Committee and the FATF. In a series of statements in late 2008 and early 2009, the G-20 announced a coordinated effort to build a stronger supervisory and regulatory framework for the financial sector (G-20, 2008, 2009). As part of this project, the Basel Committee issued guidelines in 2009 and 2010 to strengthen capital and liquidity requirements for internationally active banks. The FATF also responded to the G-20's call-to-action by strengthening standards on combating illicit financing, intensifying procedures for dealing with non-compliant jurisdictions, and enhancing domestic enforcement actions against non-compliant banks. Both sets of actions have

[10] In 2012, for example, the US government fined HSBC 1.9 billion US dollars. Other countries that have levied large fines against banks include the UK, Australia, Singapore, Ireland, and Panama.

significant implications for trade financing.

3.1 The Basel Committee and Bank Liquidity Challenges

The Basel Committee on Banking Supervision was established by the central bank governors of G-10 countries at the end of 1974, following several international currency and banking crises.[11] The Committee's two primary goals are to enhance financial stability through improvements in banking supervision, and to provide a forum for coordination among its members. Since its inception, the Basel Committee has adopted three sets of major reforms. The first, known as Basel I, was adopted in 1988 and focused on ensuring that international banks maintained adequate capital ratios to appropriately balance potential profits and risks. Although the Basel Committee is not a legally-binding body, Basel I standards were ultimately adopted by almost all countries with active international banks.

Since the early 2000s, the Basel Committee has twice modified its earlier standards. In June 2004, the Committee replaced Basel I with Basel II, which was designed to improve the ability of regulatory capital requirements to reflect underlying risks and to encourage continued improvements in risk management.[12] Finally, in the aftermath of the financial crisis, the Basel Committee adopted a new set of reforms, collectively dubbed "Basel III.' Even before the collapse of Lehman Brothers in 2008, governments were aware that the banking sector had too much leverage and inadequate liquidity buffers (*History of the Basel Committee*, 2018). Between 2008 and 2010, the Committee adopted a series of new measures that were collectively set out in a December 2010 document, which has subsequently been revised several times. Basel III sets out stricter requirements for the quality and quantity of regulatory capital, creates additional capital buffers, sets forth minimum liquidity requirements and a minimum leverage ratio, and stipulates additional requirements for systemically important

[11]The Committee has since expanded its membership to include 45 institutions in 28 jurisdictions.

[12]For a more detailed summary of the Basel Committee's activities and reforms, see `https://www.bis.org/bcbs/history.htm`.

banks.

While a full discussion of Basel III reforms is beyond the scope of this manuscript, two aspects of the agreement have direct implications for trade financing. First, by establishing minimum liquidity requirements, Basel III requires banks to maintain more cash-on-hand, which means banks have fewer loans to give out. When considering how to change their lending portfolio, banks are most likely to terminate relationships with higher risk, lower yield customers, such as banks and companies in less developed economies. By reducing the supply of available money and increasing competition, Basel III makes it more likely that smaller and newer firms will have trouble finding financing for trade.

Second, Basel III introduces a minimum leverage ratio, whereby banks must calculate their risk exposure by taking into consideration both outstanding loans and "off-balance sheet" items. Off-balance sheet items or contingent liabilities are instances where a bank is acting as a guarantor, promising to provide money at a future date. In the case of trade financing, such promises rarely require financial payments; a bank is simply serving as an intermediary between the buyer and the seller, and helping to mitigate risk. A bank would only pay under conditions of default, a rarity in international trade.[13] Despite the low risks of default, banks are required under Basel III to count trade financing items like letters of credit as a source of leverage.

The Basel Committee has revised its standards several times since 2010 and has planned a gradual phase-in of implementation; as a result, the ultimate effect of Basel III on trade financing is unclear. Since 2010, international bodies like the World Trade Organization and the International Chamber of Commerce and systemically-important international banks have lobbied the Basel Committee to modify the standards so that they cause less disruption to international trade. In 2014, the Committee reformed the standards to take into

[13]Data collected by the International Chamber of Commerce suggests the default rate for import letters of credit is 0.08 and the default rate for export letters of credit is 0.04 (ICC Banking Commission, 2016).

account the low risk of default of letters of credit. But even with minor reforms, the Basel III standards still reduce the incentives for banks to engage in trade financing, creating significant gaps in available funding with the most vulnerable populations. The International Chamber of Commerce notes this trend, writing that "the global economic system has largely recuperated pre-crisis levels of liquidity; however, it is disproportionately available to multinationals and large corporates - the top end of the market - and consistently absent in the micro, small, and medium-sized enterprise segment" (International Chamber of Commerce, 2017, 17).

3.2 The FATF and the Decline of Correspondent Banking Relationships

The FATF was established in 1989 as part of an intergovernmental effort to formulate standards on the criminalization of money laundering. Following the 9/11 terrorist attacks, the FATF expanded its mandate to include combating terrorist financing.[14] Although the FATF was founded by G-7 countries, the European Commission, and eight other states,[15] the Task Force has since expanded its membership to 39 members, including all major global economies.[16] It has also broadened its influence through a network of regional affiliate bodies that today include more than 190 countries worldwide.

The FATF is both an international standard setter and compliance monitor. Since 1990, it has maintained a list of 40 recommendations[17] that are designed to help countries identify illicit financing risks, develop appropriate domestic policies, apply preventive measures for the financial sector, empower appropriate domestic authorities, and facilitate international

[14]It subsequently expanded its mandate once more in 2012 to include combating the financial of nuclear proliferation. See Nance and Cottrell (2014) for a discussion of this mandate expansion.

[15]Australia, Austria, Belgium, Italy, Luxembourg, Netherlands, Spain, and Switzerland.

[16]A list of all FATF members and regional affiliates is available in the Appendix.

[17]When the FATF expanded its mandate in 2001 to include terrorist financing, it adopted additional Special Recommendations on this issue. In 2012, the FATF consolidated its recommendations back to 40.

cooperation. While many FATF recommendations directly or indirectly affect financial institutions, none has had as profound an impact on banks as the requirement to verify customer identities. Under this recommendation, often referred to as "know-your-customer" requirements or "customer due diligence," financial institutions should take steps to identify customers and verify their identities, and understand and obtain information about the intended purpose of business.[18] Financial institutions are also expected to monitor the business relationship and scrutinize transactions over time, giving additional scrutiny to customers who pose a higher risk of money laundering or terrorist financing.[19]

Know-your-customer rules impose high costs on banks, which directly affect correspondent banking relationships. The International Chamber of Commerce estimates that the costs of maintaining a basic correspondent relationship have risen from approximately 15,000 Euros to 75,000 Euros due primarily to increased compliance costs (International Chamber of Commerce, 2017, 19). Banks also worry about the reputational risk of being associated with a high risk customer or non-compliant bank.[20]. Such considerations have led to an unprecedented numbers of closures of correspondent bank accounts. Between 2011 and 2015, more than 100 countries experienced a decline in the number of active correspondent relationships (Committee on Payments and Market Infrastructures, 2016). A 2014 British Banking Association survey of 11 international banks found that since 2011, these banks had closed thousands of correspondent relationships (International Financial Corporation, 2016).

The termination of banking relationships has disproportionately affected the most vul-

[18]Financial institutions are also required to take steps to identify the beneficial owner of accounts where the legal title belongs to one person while property rights belong to someone different.

[19]For more on this recommendation and its specific requirements, see the FATF Recommendations, updated June 2019, retrieved from: `http://www.fatf-gafi.org/publications/fatfrecommendations/documents/fatf-recommendations.html`, accessed on 26 June 2020.

[20]Author interview of compliance executive of top-five US bank, 28 August 2015; Author interview of Jeff Soloman, Thomson Reuters' World Check, 28 September 2015. For more information on interviews, please see the appendix.

nerable countries and populations. In some cases, banks have mitigated risk through "de-risking," whereby they cease engaging in entire categories of higher risk activities, rather than judging the risks of clients on a case-by-case basis. Banks, firms, and customers in less developed economies are particularly likely to be affected by such decisions, regardless of the actual risk that they pose of illicit financing. A recent report from the WTO Working Group on Trade, Debt, and Finance indicates that the implementation of know-your-customer requirements "had forced out small African banks, despite their impeccable due diligence records" and had made parts of Eastern Europe "virtually 'un-bankable' "(WTO Working Group on Trade, Debt and Finance, 2017, 2).

The end result of such practices is that younger and smaller firms in developing and emerging economies have found it increasingly difficult to access the international financial system. As banks close correspondent accounts, the costs of doing business abroad rise concomitantly. Not surprisingly, the contraction of finance is likely to affect trade. While large companies may be able to find alternative sources of financing, SMEs usually rely on bank financing to build export relationships. Yet for banks, the relative cost of conducting due diligence on such firms in developing countries – and the possibility of exposing themselves to regulatory risk – is high compared to the small expected financial gains. As a result, banks may close correspondent accounts or refuse financing requests from such companies. Indeed, nearly 60 percent of SMEs firms surveyed by the Asian Development Bank reported being rejected by banks when requesting trade finance (Auboin and DiCaprio, 2017, 11). The most common reason that banks rejected requests for trade financing was know-your-customer obligations (Di Caprio, Kim and Beck, 2017).

4 Empirical Approach and Hypotheses

To analyze the spillover effects of international institutions in global finance on global trade flows, I examine the area of financial cooperation that banks most commonly identify as an impediment to trade financing: the implementation of know-your-customer rules.[21] Banks report closing correspondent accounts with other banks in large part due to the costs of conducting risk assessments on foreign customers. A key input in this process is a customer's geographic location: customers are generally higher risk if they come from countries with inadequate anti-money laundering systems.[22] Although the FATF explicitly advises banks to consider each customer's individual risk profile, banks often opt instead to close correspondent accounts with riskier, low-yield countries. The closure of accounts is likely to impede access to trade financing and potentially affect trade flows.

I analyze how the FATF's public listing of select "non-compliant" countries affects bilateral exports from the listed country. Since 2010 the FATF has publicly identified certain countries that fail to adopt laws and regulations in line with FATF guidelines on stopping money laundering and terrorist financing.[23] The FATF selects countries for listing based on the results of its monitoring and evaluation process. The FATF and its regional bodies evaluate compliance with FATF recommendations in about 15-20 countries per year. If countries fall below a certain compliance threshold, they are automatically eligible for inclusion on the FATF non-complier list. The FATF makes final listing determinations based on a number of different factors, including the size and integration of the country's financial sector,[24] the risk of money laundering and terrorist financing, and failure to take substantial actions to

[21] See, for example, Asian Development Bank, *2019 Trade Finance Gaps, Growth, and Jobs Survey*, September 2019, retrieved from: `https://www.adb.org/publications/2019-trade-finance-gaps-jobs-survey`, among many others.

[22] See the FATF Recommendations, Interpretive Note for Recommendation 10, retrieved from: `https://www.fatf-gafi.org/media/fatf/documents/recommendations/pdfs`, accessed on 18 June 2020.

[23] See the Appendix for a list of all countries listed by the FATF between 2010 and 2016.

[24] Relative to both its region and to the world

criminalize money laundering or terrorist financing (FATF-GAFI, 2009, 11).[25]

By examining the effect of the FATF list on trade flows, I am employing a "most likely" case approach to studying the relationship between international financial cooperation and trade flows. There are several reasons why a relationship between international finance, trade financing, and trade is likely to manifest in this issue area. There is ample empirical evidence suggesting the increased costs of complying with know-your-customer obligations are partly to explain for why firms are struggling to access trade financing. In a 2016 Asian Development Bank (ADB) survey, 90 percent of banks indicated that anti-money laundering policies and know-your-customer requirements were a factor impeding their ability to extend additional trade finance (Di Caprio, Kim and Beck, 2017). A 2017 Financial Stability Board survey of over 300 banks revealed that the costs associated with opening and maintaining a correspondent banking relationship, and in particular, the application of know-your-customer requirements, is a key driver behind the decline in correspondent banking (Financial Stability Board, 2017).

If international cooperation on combating illicit financing has affected trade financing, it is likely to affect export flows. Approximately 60 percent of firms fail to execute a trade transaction after a bank rejects their application for trade financing (Di Caprio, Kim and Beck, 2017, 2). Many of these rejected requests are potentially viable. Banks reject more than a third of requests due to low profitability or the need for collateral and another third for know-your-customer reasons. In these latter cases, the rejections often have less to do with the actual risk of illicit financing and more to do with the cost and effort of implementing know-your-customer requirements (Di Caprio, Kim and Beck, 2017, 3). Since trade financing is particularly important in shaping export opportunities (Auboin and DiCaprio, 2017), factors that reduce a country's overall access to trade financing are likely to lead to a decline

[25]Other factors include not responding to requests for international assistance, the existent to which a government has sought and implemented technical assistance, and the degree to which a government has demonstrated a willingness to address its deficiencies.

in exports.

4.1 The FATF Non-Complier List, Trade Financing, and Exports

Banks report closing correspondent accounts and denying requests for trade financing in large part due to the cost of implementing know-your-customer obligations. Each bank will make its own decisions about which countries and customers constitute "high risk," and such decisions will likely weigh profitability against risk. The FATF non-complier list is likely to be a useful input in this process because the FATF is a well-known, credible monitor of illicit financing risk (Morse, 2019). Not all countries, however, are equally dependent upon bank-intermediated trade financing; to the extent that the international financial cooperation disrupts exports because of its effect on trade financing, I expect that listing should only have a negative effect on the countries that are most likely to need banks to issue letters of credit.

Previous research on trade financing suggests that exporters are more likely to need letters of credits from banks if the exporter is in a country with a low level of contract enforcement (Caballero, Candelaria and Hale, 2016). When a country has a poor record of contract enforcement, the importer in the partner country will view the exporter as higher risk and therefore demand that a bank step in to provide some assurance of payment or goods. Conversely, if the exporter is in a country with a high level of contract enforcement and the importer is in a country with low contract enforcement, the exporter may have more leverage to set the terms of engagement. The ratio of contract risk in the exporting country compared to contract risk in the importing country is therefore a way of proxying trade financing dependence; when the contract risk ratio is high, countries are more likely to need bank-intermediated trade financing.[26]

[26]This is, at best, a proxy for trade financing as the mechanism driving the relationship between financial cooperation and trade. Firms do not make public data about trade financing, nor do banks provide data about correspondent banking relationships. Given these data challenges, economists examine trade financing

Building on these insights, I expect that listing is most likely to have a negative effect on exports when the exporting country has a high level of contract risk and the importing country has a low level of contract risk.

- *Hypothesis 1: The effect of the FATF list on exports will depend on the contract risk ratio of the exporting and importing country. As the contract risk ratio increases, listing will have a more negative effect on export flows.*

If the effect of international financial cooperation on trade is generated by a contraction in trade financing, then this relationship should be most apparent in dyads where cross-border trade takes longer. Shipping goods is risky and takes time; as the distance between countries increases, exporters and importers are more likely to need external financing to mitigate risk and payment delays. Following this logic, economists have examined trade financing by using distance as a proxy variable (Schmidt-Eisenlohr, 2013).

Building on this approach, I expect that the relationship between listing, contract risk, and exports should hold in dyads with the greatest distance between countries but not in dyads with small distances between countries.

- *Hypothesis 2: The effect of the FATF list on exports in dyads with high contract risk ratios will hold only for dyads when the exporter and importer are separated by significant distance.*

5 Research Design and Data

To assess how international financial cooperation related to illicit financing has affected exports, I use a gravity model of trade. The gravity model is commonly used in both

through micro-level empirical tests or macro-level indirect analyses. Amiti and Weinstein (2011), for example, rely on country-level data that is available only for Japan, while Antras and Foley (2015) draw on a dataset for one specific industry. In contrast, Chor and Kalina (2012), Schmidt-Eisenlohr (2013), and Caballero, Candelaria and Hale (2016) probe the relationship indirectly by examining how interbank lending affects trade flows.

political science and economics to study trade flows; it has also been used in previous studies examining the effect of international institutions on trade (Goldstein, Rivers and Tomz, 2007; Mansfield and Reinhardt, 2008). My baseline gravity model analyzes export flows between pairs of states. I focus on exports specifically because exporters are particularly reliant on bank-intermediated trade financing (Amiti and Weinstein, 2011). Data on exports is drawn from the IMF Direction of Trade Statistics, and reflects the value of exported goods, as reported by the exporting country.[27] As is standard in gravity models, I log the dependent variable in all specifications.

The data are in directed dyad format, which means I analyze export flows from pairs of states in both directions.[28] I include directed dyad fixed effects to control for omitted dyad-specific characteristics that do not vary with time but that might affect exports. I control for time dependence through a cubic polynomial of time (Carter and Signorino, 2010); the results are also robust to using year fixed effects.

My main variable of theoretical interest is Listed - Exporter, which is a dichotomous measure of whether the exporting country is on the non-complier list in a given year. I begin the analysis in 2010 because that is the start of the current non-complier list, and my data goes through 2016. Data on country listing status is collected from FATF non-complier list announcements, which are published online in February, June, and October every year.[29] Because my data is at the annual level, the variable for listing is equal to one if the country is on the non-complier list at any point during the year. In the full sample, approximately 18 percent of dyads include a listed exporter. In combination with the directed dyad fixed effects, the model estimates how listing in the exporting country affects export flows within

[27] I standardize values across years by divided all values by a GDP deflator.

[28] For example, the data set includes US-Canada as one directed dyad and Canada-US as a separate directed dyad.

[29] The FATF actually issues two sets of lists: "Improving Global AML/CFT Compliance: On-going Process" and the "FATF Public Statement." For this project, I code a country as listed if it appears on any of the FATF lists in a given year.

a given dyad, compared to years when the exporting country is not listed.

My argument suggests banks terminate correspondent banking relationships or raise the costs of trade financing because of a relative risk differential; for this reason, the importing country's listing status could also affect trade flows. I include a separate variable Listed - Importer indicating whether the importing country is on the non-complier list in a given year. 18 percent of dyads include a listed importer and approximately 4 percent of dyads include two listed countries.

The theory posits that the effect of international financial cooperation on trade flows is most likely to be present in dyads where trade depends on bank-intermediated trade financing. Because there is no direct data on trade financing, I identify those dyads most likely to depend on banks to provide financing or letters of credit through data on the strength of contract enforcement. Banks step in to provide financing when the exporters and importers need additional measures to manage payment delays and other risks associated with trade. Following Caballero, Candelaria and Hale (2016), I identify countries most likely to depend on trade financing by looking at the International Country Risk Guide data on contract risk. Contract risk reflects "the risk of unilateral contract modification or cancellation and, at worst, outright expropriation of foreign owned assets."[30] Because banks are most likely to be facilitating trade financing in situations where the exporting country has a poor record of contract enforcement and the importing country has a strong record of contract enforcement, I construct a variable Contract Risk Ratio, which is the contract risk rating in the exporting country divided by the contract risk rating in the importing country. This variable ranges from 0.22 to 4.5 with an average of 1.1. A higher ratio indicates a greater relative risk in the exporter compared to the importer.[31]

[30]See PRS Group International Country Risk Guide variable definitions, available at: `https://epub.prsgroup.com/list-of-all-variable-definitions`.

[31]The original data uses an inverse range, where 4 indicates a low risk of contract violation and 0 indicates a high risk. For ease of interpretability, I rescale this variable so that 5 indicates high risk and 1 indicates low risk. I then take the risk rating of exporter/risk rating of the importer.

A significant body of research suggests geography is an impediment to trade because it raises costs and risk; therefore geography is likely to be correlated with the need for trade financing. Because directed dyad fixed effects hold constant this variable, I instead examine the effect of geography by comparing listing and trade in dyads in the bottom quartile in terms of distance with dyads in the top quartile. I use data on the distance between country capitals, drawn from the Correlates of War project. Dyads in the bottom quartile are dyads where country capitals are less than 3465 kilometers apart. Dyads in the top quartile are pairs where country capitals are more than 9727 kilometers apart. I compare the effect of listing on exports in high contract risk ratio dyads in these two samples.

5.1 Additional Covariates

I include a number of other variables that have been shown to affect trading relationships. The standard gravity model of trade assumes that economic size is a key determinant of trade flows (Tinbergen 1962). I include the variables GDP - Exporter and GDP - Importer to account for the level of economic development in both countries. I control for differences in market size by including GDP Per Capita - Exporter and GDP Per Capita - Importer; the results are also robust to substituting Population - Exporter and Population - Importer. All four variables are drawn from the IMF Direction of Trade Statistics and are logged to account for the skewed distribution of the data.

Political institutions in the exporting and importing countries may also impact the trading relationship. Mansfield, Milner and Rosendorff (2000) show that democratic dyads have more open trade relations than dyads composed of a democracy and an autocracy, while Mansfield, Milner and Rosendorff (2002) show that democracies are also more likely to form preferential trade agreements. Democratic institutions may increase trade because they reduce the ability of governments to use trade barriers for political purposes (Milner and Kubota, 2005). Within the global finance literature, scholars have also argued that investors

are more favorably inclined toward democratic countries because such governments can more credibly commit to repayment (North and Weingast, 1989; Beaulieu, Cox and Saiegh, 2012) – a pattern that is likely to hold for trade finance, where companies are also seeking reassurance about the fulfillment of contractual obligations. To account for these factors, I include Democracy (Exporter) and Democracy (Importer), which are drawn from the Polity IV project.

5.2 Empirical Approach

I analyze the effect of the FATF non-complier list on dyadic exports, moderated by contract risk ratio, through an ordinary least squares model. One potential challenge with this approach given the structure of the data is that observations are not independent. The panel structure of the data means that each dyadic observation is repeated for multiple years and that different dyads contain the same country. By including directed dyad fixed effects, I address concern that unobserved variables may systematically vary across dyads. I also cluster standard errors at the dyad level, which helps account for the fact that observations within a dyad are not independently and identically distributed. Additionally, I lag all explanatory variables by one year to account for the possibility of simultaneity, which would make it difficult to observe the relationship between FATF listing and exports.

An additional concern relates to the fact that FATF listing is not randomly assigned. If the FATF selects countries for inclusion on the non-complier list based on factors that might also be associated with declining export levels, my analysis might pick up a spurious correlation between the two variables. One such example might be if banks independently decided to cut off relationships with banks in low-yield countries and the FATF list happened to also target these small or unprofitable economies or unprofitable. If this were true, my results could show a decline in exports unrelated to the impact of the FATF non-complier list.

I address this concern by running my analysis on a second sample that includes only dyads where the exporter was eligible for listing as of February 2010. The FATF and its regional affiliates completed close to 100 compliance monitoring reports prior to deciding to revamp the non-complier list process and producing a new list. Many countries thus found themselves unexpectedly eligible for listing based on the results of previous evaluation reports. I restrict my analysis to this sample of 45,933 observations and examine how listing affects exports in dyads with high contract risk ratios.

5.3 Results

The results provide strong support for the idea that international financial cooperation has spillover effects on global trade. Table 1 shows the results of the analysis examining the effect of the FATF non-complier list on exports moderated by contract risk ratio. Model 1 shows the results of a stripped down analysis that includes only variables for listing status and contract risk ratio, while models 2 and 3 add controls. In all models, listing has a consistently negative effect on exports when dyads have contract risk ratios above approximately 1.5. In model 3, for example, a dyad where the listed country was twice as risky as the importing country is estimated to experience a sixteen percent decline in exports. As the contract risk ratio increases, this effect becomes even more pronounced.

	Dependent variable: Exports (Logged)					
	Full sample			Eligible-for-listing sample		
	(1)	(2)	(3)	(4)	(5)	(6)
FATF Listing (Exporter)	0.147**	0.234***	0.216***	0.139*	0.339***	0.305***
	(0.058)	(0.066)	(0.067)	(0.072)	(0.080)	(0.081)
Contract Risk Ratio	0.003	0.068**	0.067**	0.026	0.134**	0.133**
	(0.026)	(0.027)	(0.027)	(0.060)	(0.064)	(0.063)
FATF Listing (Exp) * Contract Risk Ratio	−0.130***	−0.195***	−0.189***	−0.187***	−0.285***	−0.272***
	(0.041)	(0.047)	(0.047)	(0.053)	(0.058)	(0.058)
FATF Listing (Importer)	0.051**	0.017	0.012	0.025	−0.003	−0.008
	(0.025)	(0.026)	(0.027)	(0.052)	(0.057)	(0.057)
GDP - Exporter (Log)		0.218***	0.174**		0.404***	0.351**
		(0.065)	(0.078)		(0.137)	(0.152)
GDP - Importer (Log)		0.281***	0.239***		0.182	0.129
		(0.062)	(0.072)		(0.121)	(0.148)
GDP Per Capita - Exporter (Log)		−0.058	−0.011		−0.194	−0.160
		(0.185)	(0.191)		(0.319)	(0.325)
GDP Per Capita - Importer (Log)		−0.305**	−0.270*		−0.344	−0.299
		(0.144)	(0.149)		(0.283)	(0.298)
Democracy - Exporter		0.012*	0.011		−0.010	−0.012
		(0.007)	(0.007)		(0.008)	(0.008)
Democracy - Importer		0.011*	0.009		0.011	0.010
		(0.006)	(0.006)		(0.012)	(0.012)
Time	−0.014***	−0.016***		−0.033***	−0.012	
	(0.004)	(0.005)		(0.009)	(0.012)	
Observations	82,521	70,344	70,344	26,545	22,124	22,124
R^2	0.933	0.937	0.937	0.915	0.919	0.919
Adjusted R^2	0.918	0.923	0.923	0.896	0.899	0.899
Note:						*p<0.1; **p<0.05; ***p<0.01

Table 1: International Institutions, Trade Financing, and Exports - All models show the results of an OLS regression with directed dyad-fixed effects and standard errors clustered at the dyad level. Models 3 and 6 replace the time polynomial with year-fixed effects.

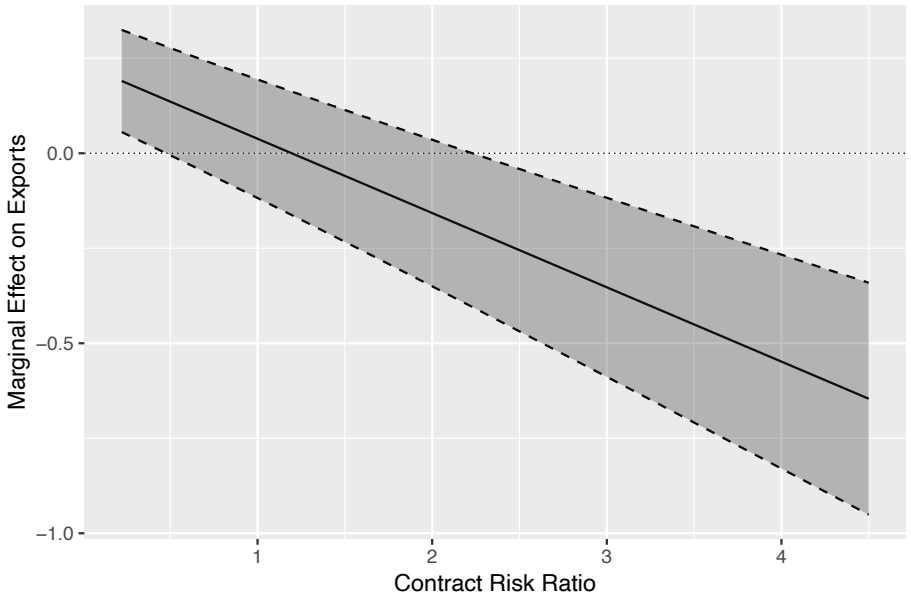

Figure 1: *Marginal Effect of Listing on Exports by Contract Risk Ratio* - The plot shows the marginal effect of the FATF non-complier list on exports as the contract risk ratio between the exporter and importer increases. Higher risk ratios mean the exporter is relatively more risky compared to the importer.

Figure 1 shows the marginal effect of listing on exports as the contract risk ratio increases. When the contract risk ratio is close to zero, this means that the exporting country is much less risky than the importing country. Interestingly, in these rare cases, listing actually leads an increase in exports within a dyad. This may suggest a substitution effect across dyads, where a listed country with relatively high contract enforcement shifts exports toward countries with low contract enforcement. Listing is associated with a decline in exports after the contract risk ratio moves above 1. As inequality in risk grows, listing has an increasingly negative effect on exports. At the extreme, when the exporting country is four times as risky as the importer, the decline in exports is nearly fifty percent.

Models 4-6 show the results of the same analysis on the eligible-for-listing sample. Although the sample size changes considerably, the combined point estimates remain relatively consistent across all six models. Listing continues to have a negative effect on exports when

the contract risk ratio is above about 1.5, providing suggestive evidence that disruptions in trade financing may explain the negative effect.

A second way to probe whether the relationship between international financial cooperation and trade flows is moderated by trade financing is to examine whether the effect of listing varies depending on distance. Bank-intermediated trade financing is more likely to be important for dyads where the countries are far apart from each other since trade will take longer and be riskier. I replicate models 1 and 2 for "near-distance dyads" (bottom quartile of distance) and "far-distance dyads" (top quartile of distance and produce marginal effects plots for these each group (Figures 2 and 3).[32] These analyses provide additional support for the notion that bank-intermediated trade financing is the underlying causal mechanism explaining the relationship between the FATF non-complier list, contract risk, and exports.

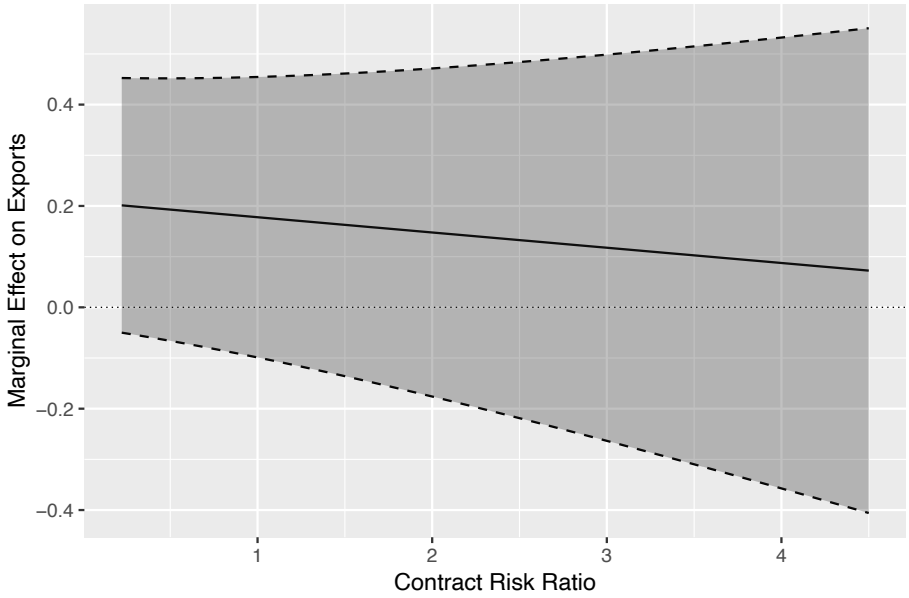

Figure 2: *Marginal Effect of Listing on Exports by Contract Risk Ratio (Near-Distance Dyads)*- The plot shows the marginal effect of the FATF non-complier list on exports, moderated by the contract risk ratio, for dyads in the bottom quartile of distance. Higher risk ratios mean the exporter is relatively more risky compared to the importer.

[32]The Appendix displays these results.

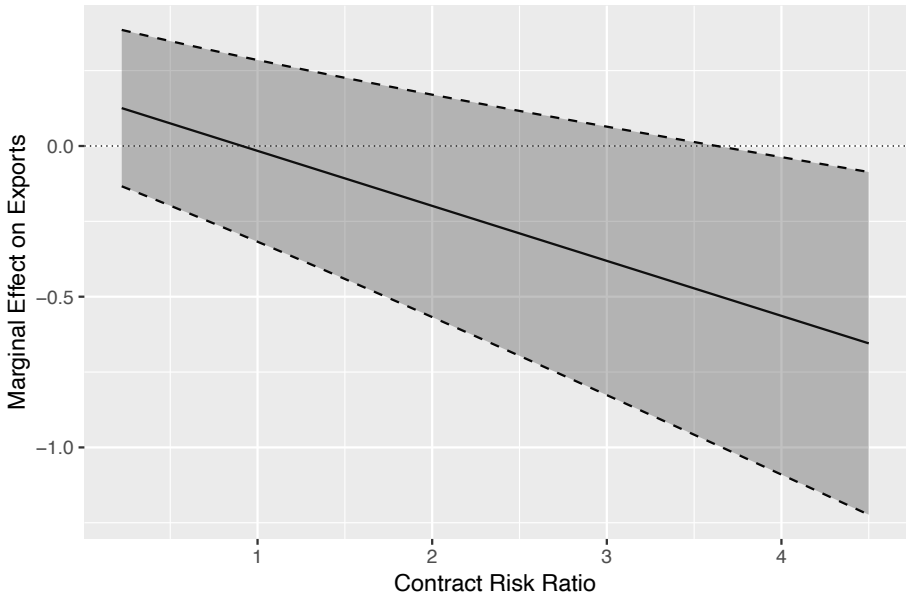

Figure 3: *Marginal Effect of Listing on Exports by Contract Risk Ratio (Far-Distance Dyads)*- The plot shows the marginal effect of the FATF non-complier list on exports, moderated by the contract risk ratio, for dyads in the top quartile of distance. Higher risk ratios mean the exporter is relatively more risky compared to the importer.

5.4 Robustness

An alternative concern might be that once the FATF lists a country, capital flows change, which affects exchange rates and in turn affects exports via a change in import prices for raw materials. While this process could affect exports flows in countries that export a significant portion of finished goods, it should have much less of an impact on commodity-dependent economies because the prices for commodities do not change. I therefore assemble a sample of dyads where the exporting country is commodity dependent, which I code based on data from the United Nations Conference on Trade and Development.[33] Replicating models 1-3 on this commodity-dependent sample provides additional support for the analysis: listing

[33]I code this data based on UNCTAD data from 2009 and 2010 to limit concerns about reverse causality. UNCTAD considers any country where commodities make up more than 50 percent of their export earnings to be "commodity dependent." Please see `https://unctad.org/en/PublicationsLibrary/suc2011d8_en.pdf` for more details.

has a consistently negative effect on dyads with high contract risk ratios. These results are available in the Appendix.

An additional challenge for my analysis is the problem of missing data. Because contract risk ratio is a key variable of interest and data on contract enforcement is not available for every country in the sample, my analysis drops many observations because of missing data. To test whether this biases the results, I use multiple imputation to assemble a complete sample and repeat the analysis on this imputed sample. The results support my main findings.[34]

6 Conclusion

In the years since the 2008 financial crisis, governments and international organizations have celebrated the international community's success in avoiding substantial increases in protectionism. But while tariffs remain low, international financial standards may have unwittingly created new barriers to trade by reducing access to trade financing. Trade financing is the 'lifeline' of trade because it enables firms to take on the risk and time-delays of cross-border transactions. The availability of many types of trade financing, however, depends on bank-to-bank relationships.

This paper highlights how a key international institution in global finance has affected trade flows. It begins by establishing a substantive relationship between banking regulation, trade financing, and international trade, and then provides empirical evidence for a relationship between the international effort to combat illicit financing and declines in bilateral exports. This negative association is restricted to countries where exporters are likely to depend on bank-facilitated trade financing to participate in international trade.

The relationship between international financial regulation and trade flows has severe

[34]See Appendix for this marginal effect plot with imputed data.

implications for long-term growth in developing countries. When banks drop correspondent relationships or begin to charge higher premiums for capital, firms in such countries find it increasingly difficult to gain access to financing. These trade financing gaps are significant because they affect disproportionately the poorest, most vulnerable people and countries. SMEs account for 80 percent of total employment and almost 40 percent of total exports in developing countries (International Financial Corporation, 2016); the inability of such firms to access trade financing is likely to have long-term negative effects on economic growth.

This research also has important implications for scholars of political economy and global governance. Growing populism and opposition to international institutions may stem not just from designated effects but from regime spillovers and unintended consequences. Political economy scholars have long looked at trade without considering financial constraints, and as a result, they have missed a key impediment to economic development in low-income countries. By broadening the analytic frame, political scientists may better understand current controversies around global governance and opposition to international trade.

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Appendix for "International Institutions and Spillover Effects: How Financial Cooperation Disrupts Global Trade"

December 14, 2020

Information on interviews

Over the course of this research project, I conducted numerous interviews with officials from listed governments, IOs, and the banking sector. Prior to each interview, I informed the interviewee that their participation in the research project was fully voluntary, that they could decline to be interviewed on the record and/or could opt to be identified in more general terms, or that they could request that I reach out to them prior to publication of any quotes to receive approval. Most people declined to be interviewed "on the record" due to the sensitivities of this issue area and, in some cases, specific bureaucratic guidelines that do not allow them to make statements for publication. Where possible, I have relied on quotes from individuals who agreed to be interviewed on the record, or have used direct quotes from interviews without specific attribution. A list of all interviews, both cited and un-cited, is provided below.

- Interview with Executive Director of a FATF regional body, 10 December 2014
- Interview with official from a FATF regional body, 27 January 2015
- Interview with Gordon Hook, Executive Direct of the Asia/Pacific Group on Money Laundering, 16 February 2015
- Interview with compliance executive, top-five US bank, 28 August 2015
- Interview with official from compliance company, 22 September 2015
- Interview with official from compliance company, 24 September 2015
- Interview with MSCI official, 25 September 2015
- Interview with Credit Agricole CIB official, 25 September 2015
- Interview with Jeff Soloman, Financial and Risk Sales Specialist, Thomson Reuters, 28 September 2015
- Interview with official from Thomson-Reuters Country-Check, 29 September 2015
- Interview with official from formerly listed country, 9 February 2016
- Interview with official from a private bank in Ethiopia, 11 February 2016
- Interview with Thai government official, 14 February 2016
- Interview with official from an international development bank, 7 April 2016
- Interview with official from FATF-style regional body, 30 June 2016

- Interview with Gordon Hook, Executive Director of the Asia/Pacific Group on Money Laundering, 30 June 2016
- Participant Observation of Asia-Pacific Group Plenary, 6-8 September 2016
- Interview with Thai banking official, 9 March 2017
- Interview with former FATF President Antonio Gustavo Rodrigues, 29 March 2017
- Participant Observation of MONEYVAL Plenary, 30 May - 1 June 2017
- Interview with Asian Development Bank official, 26 October 2017
- Interview with Chip Poncy, Head of US government delegation to FATF (2011 - 2013), Senior delegation member (2002 - 2011), 7 February 2018
- Interview with Daniel Glaser, Assistant Secretary for Terrorist Financing (2011 - 2017), Deputy Assistant Secretary for Terrorist Financing (2004 - 2011), US Government, 12 February 2018
- Interview with Gordon Hook, Executive Director of the Asia/Pacific Group on Money Laundering, 28 January 2018

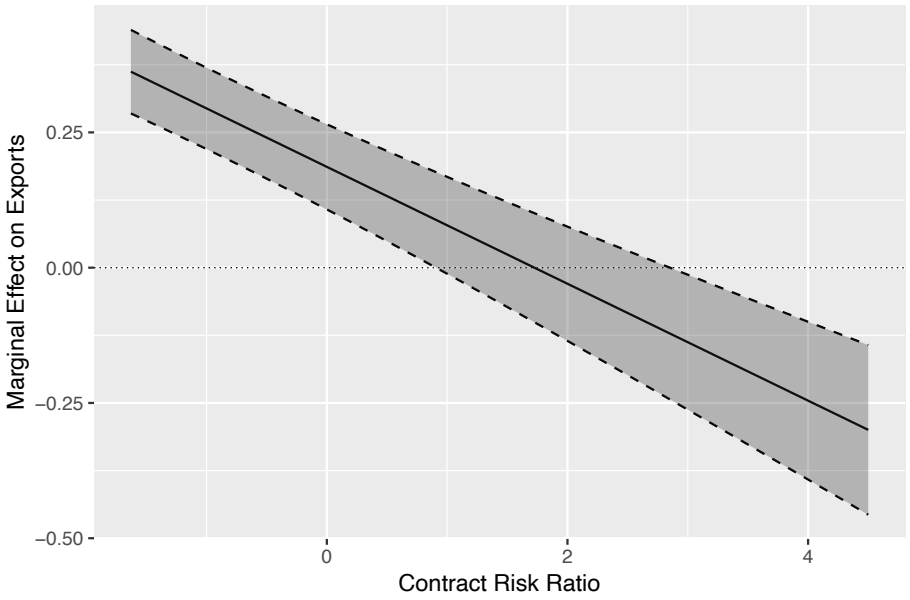

Figure 1: *Marginal Effect of Listing on Exports by Contract Risk Ratio (Imputed Sample)*- The plot shows the marginal effect of the FATF non-complier list on exports, moderated by the contract risk ratio, for the imputed sample. Higher risk ratios mean the exporter is relatively more risky compared to the importer.

Members	**Associate Members: FATF-Style Regional Bodies**
Argentina	Asia/Pacific Group on Money Laundering (APG)
Australia	Caribbean Financial Action Task Force (CFATF)
Austria	MONEYVAL (Council of Europe)
Belgium	Eurasian Group (EAG)
Brazil	Eastern and Southern Africa Anti-Money Laundering Group (ESAAMLG)
Canada	Financial Action Task Force of Latin America (GAFILAT)
China	Inter Governmental Action Group against Money Laundering in West Africa (GIABA)
Denmark	Middle East and North Africa Financial Action Task Force (MENAFATF)
European Commission	Task Force on Money Laundering in Central Africa (GABAC)
Finland	
France	
Germany	
Greece	
Gulf Cooperation Council	
Hong Kong, China	
Iceland	
India	
Ireland	
Israel	
Italy	
Japan	
Korea	
Luxembourg	
Malaysia	
Mexico	
Netherlands	
New Zealand	
Norway	
Portugal	
Russia	
Saudi Arabia	
Singapore	
South Africa	
Spain	
Sweden	
Switzerland	
Turkey	
United Kingdom	
United States	

Table 1: *FATF Members and Regional Bodies* - The table shows FATF members and associate members. Italicized members are regional organizations. Most member states belonging to FATF-style regional bodies are not FATF members.

Country	Listed	Graduated
Afghanistan	2012	–
Albania	2012	2015
Algeria	2011	2016
Angola	2010	2016
Antigua and Barbuda	2010	2014
Argentina	2011	2014
Azerbaijan	2010	2010
Bangladesh	2010	2014
Bolivia	2010	2013
Bosnia-Herzegovina	2015	–
Brunei Darussalam	2011	2013
Cambodia	2011	2015
Cuba	2011	2014
DPRK	2007	–
Ecuador	2010	2015
Ethiopia	2010	2014
Ghana	2010	2013
Greece	2010	2011
Guyana	2014	2016
Honduras	2010	2012
Indonesia	2010	2015
Iran	2007	–
Iraq	2013	–
Kenya	2010	2014
Kuwait	2012	2015
Kyrgyzstan	2011	2014
Lao PDR	2013	–
Mongolia	2011	2014
Morocco	2010	2013
Myanmar	2010	2016
Namibia	2011	2015
Nepal	2010	2014
Nicaragua	2011	2015
Nigeria	2010	2013
Pakistan	2010	2015
Panama	2014	2016
Papua New Guinea	2014	2016
Paraguay	2010	2012
Philippines	2010	2013
Qatar	2010	2010
Sao Tome and Principe	2010	2013
Sri Lanka	2010	2013
Sudan	2010	2015
Syria	2010	–
Tajikistan	2011	2014
Tanzania	2010	2014
Thailand	2010	2013
Trinidad and Tobago	2010	2012
Turkey	2010	2014
Turkmenistan	2010	2012
Uganda	2014	–
Ukraine	2010	2011
Vanuatu	2016	–
Venezuela	2010	2013
Vietnam	2010	2014
Yemen	2010	–
Zimbabwe	2011	2015
Total	57	47

Table 2: *Countries listed by the FATF (2010 - 2016)* - Table shows the countries included on the non-complier list, the year of listing, and the year of graduation (where relevant). Countries that graduate are removed from FATF monitoring due to significant policy change (with the exception of Sao Tome and Principe, which the FATF decided was a low threat and no longer needed monitoring).

	Dependent variable: Exports (logged)			
	Small-Distance Dyads		Large-Distance Dyads	
	(1)	(2)	(3)	(4)
FATF Listing (Exporter)	0.125	0.208*	0.132	0.166
	(0.119)	(0.126)	(0.117)	(0.127)
Contract Risk Ratio	0.021	0.045	−0.110**	−0.071
	(0.040)	(0.040)	(0.048)	(0.047)
FATF Listing (Exp) * Contract Risk Ratio	−0.010	−0.030	−0.132*	−0.182**
	(0.087)	(0.094)	(0.073)	(0.079)
FATF Listing (Importer)	0.154***	0.132***	0.007	−0.044
	(0.047)	(0.044)	(0.053)	(0.055)
GDP - Exporter (Log)		0.106		0.365***
		(0.110)		(0.136)
GDP - Importer (Log)		0.407***		0.183
		(0.107)		(0.123)
GDP Per Capita - Exporter (Log)		0.259		−0.303
		(0.296)		(0.418)
GDP Per Capita - Importer (Log)		−0.552**		−0.084
		(0.225)		(0.322)
Democracy - Exporter		−0.015		0.026*
		(0.014)		(0.014)
Democracy - Importer		0.007		0.012
		(0.011)		(0.012)
Time	−0.032***	−0.015**	−0.005	−0.013
	(0.007)	(0.007)	(0.007)	(0.013)
Observations	20,231	17,061	19,888	18,035
R^2	0.945	0.954	0.927	0.928
Adjusted R^2	0.934	0.944	0.910	0.912
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 3: International Institutions, Trade Financing, and Exports: Distance Comparison

	Dependent variable: Exports (Logged)		
	(1)	(2)	(3)
FATF Listing (Exporter)	0.142	0.275***	0.278***
	(0.088)	(0.102)	(0.103)
Contract Risk Ratio	−0.070	0.080	0.083
	(0.050)	(0.054)	(0.054)
FATF Listing (Exp) * Contract Risk Ratio	−0.129**	−0.240***	−0.240***
	(0.058)	(0.067)	(0.067)
FATF Listing (Importer)	0.045	−0.016	−0.018
	(0.054)	(0.061)	(0.061)
GDP - Exporter (Log)		0.557***	0.592***
		(0.115)	(0.143)
GDP - Importer (Log)		0.076	0.101
		(0.128)	(0.152)
GDP Per Capita - Exporter (Log)		−0.477	−0.539
		(0.323)	(0.327)
GDP Per Capita - Importer (Log)		−0.187	−0.227
		(0.286)	(0.299)
Democracy - Exporter		0.004	0.002
		(0.016)	(0.016)
Democracy - Importer		0.009	0.007
		(0.013)	(0.013)
Time	−0.053***	−0.041***	
	(0.008)	(0.011)	
Observations	32,845	27,733	27,733
R^2	0.901	0.905	0.905
Adjusted R^2	0.877	0.881	0.881
Note:			*p<0.1; **p<0.05; ***p<0.01

Table 4: International Institutions, Trade Financing, and Exports: Commodity-Dependent Countries