

Service Firms in the Politics of US Trade Policy

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Despite the importance of services in international trade and in the support of global production activities, studies of the political economy of trade liberalization tend to focus on *goods* trade and the preferences of manufacturing firms and their employees. This article advocates greater consideration of service firms and services trade in political economy models of trade policy. I build my argument around a number of stylized facts about US trade in services. The data suggest that the United States maintains a comparative advantage in services trade, which for standard accounts of trade politics would suggest more homogenous support for trade liberalization within the services sector compared with manufacturing. However, the politics of services liberalization are complicated by the distinct and complex features of international trade in services. Tradable services are delivered internationally through cross-border trade (often electronically), but also through temporary travel and—most importantly for US firms—by a commercial presence, that is, foreign direct investment. These features of services trade imply that governments have an array of policy tools at their disposal with which to protect domestic firms from foreign competition. This article documents the relative importance of various modes of US trade in services, assesses the relationship between policy restrictions and services trade, and discusses how growth in services trade may impact firms' trade policy objectives.

Introduction

This article examines services trade in the context of the political economy of trade policy. It presents a number of stylized facts related to three aspects of services trade:

1. the US position in global services trade;
2. the multiple modes through which US firms export services; and
3. the array of policy impediments to services exports.

These stylized facts provide a detailed portrait of the ways in which US firms trade in services, the countries with which they trade, and the policies that impede the international delivery of services. The growth in services trade and the distinctive aspects of international services delivery suggest that analysts should consider services providers as potentially important actors in trade politics.

Services dominate the US economy and account for a large share of global economic activity. Measured in terms of value added, services have grown to around 75 percent of gross domestic product (GDP) in Organisation for Economic Co-operation and Development (OECD) countries and 70 percent of the global economy (Francois and Hoekman 2010). Services include a broad range of activities and industries. They can either be directly consumed by the buyer or serve as intermediate inputs that facilitate transactions across distances (for example, telecommunications services) and over time (for example, financial services) (Melvin 1989). An expansive definition of services includes any sector or activity not considered a good (with goods defined as agriculture, mining, and manufacturing).¹ Ac-

cording to this definition, services account for around 77 percent of US GDP and 80 percent of the country's employment.

Along with technological advances and reductions in transportation costs, trade in services has grown rapidly. Services trade encompasses the multiple modes by which services are delivered across borders, including in person (through travel) or electronically.² According to the World Trade Organization (WTO), services make up 21 percent of global exports (WTO 2010). They have grown at an average of 7.9 percent every year since 1980 (compared with 6.6 percent average growth in goods trade). Services are also key inputs that add significant value to other sectors, including manufacturing.

Tradable services support the activities of multinational corporations (MNCs) across a range of nonservices activities. Indeed, tradable services have enabled the disintegration of the production of manufactured goods to disparate locations around the world; more than 70 percent of global services imports are intermediate services (OECD 2013). For instance, transportation services move intermediate parts and components (and final goods) along the global supply chain; financial services provide capital for goods production and consumption; and legal and other professional services assist in compliance with shipping and other regulations. As a result, services (measured in terms of value added) represent nearly 40 percent of global trade (Lanz and Maurer 2015). It is not surprising that a productive and competitive services sector is associated with growth in goods exports (Arnold, Javorcik, and Mattoo 2011).³

A relatively small number of countries are responsible for the majority of services exports. Figure 1 displays the top thirty exporters of commercial services in 2015, which collectively represent more than 83 percent of global commercial services exports. The United States accounts for 14 percent of services exports—over twice that of the second leading exporter (the United Kingdom). The top five exporters

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¹ This broad definition includes construction, utilities, retail and wholesale trade, finance and insurance, real estate, business services, personal services, accommodations and restaurants, and public administration.

² The multiple modes of international services trade are discussed below.

³ See Francois and Hoekman (2010) for a review.

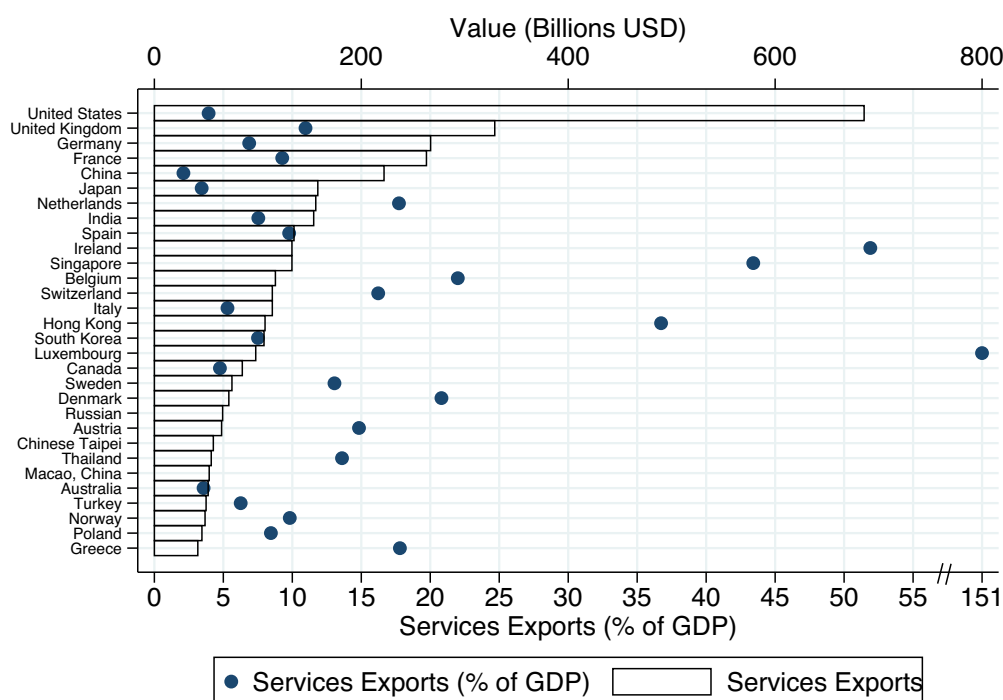


Figure 1. Top commercial services exporters

Note. Author's calculations using 2014 data from the World Trade Organization's 2015 *World Trade Report* (https://www.wto.org/english/res_e/booksp_e/world_trade_report15_e.pdf).

(the United States, the United Kingdom, Germany, France, and China) generate 36 percent of global services exports.

The trade data on services exports suggests a US comparative advantage in services. In 2015, the United States exported \$751 billion worth of services.⁴ In contrast to the widening deficit in goods trade, Figure 2 shows the growing trade surplus in services, which in 2015 was \$262 billion. Services compose 33 percent of all US exports of goods and services in 2015—up from 28 percent in 1992. The United States also enjoys a *revealed* comparative advantage in services.⁵

Given the importance of services trade, it presents something of a puzzle that the vast majority of studies that seek to explain trade policy around the world⁶ focus exclusively on the liberalization of restrictions on trade in *goods*.⁷ The work mostly attempts to explain the existence and/or the

elimination of tariffs.⁸ This oversight is consequential to the extent that (1) the modes of delivery of services across borders differ from manufacturing, and so the set of policy impediments to trade in services differs from those in the manufacturing sector and/or (2) the distributional implications of the liberalization of services differ from those for the liberalization of goods (that is, the sets of winners and losers are different), implying that pro- and anti-trade coalitions for goods and services may differ.

In this article, I provide some preliminary evidence that both of these conditions hold by presenting several stylized facts related to how (and where) US firms export services abroad. I also discuss some potential implications of the findings for trade politics, while advocating greater consideration of tradable service firms and workers in political economy explanations of trade policy.

Recent progress in this area examines the distributional consequences of trade in services. Jensen, Quinn, and Weymouth (2017) demonstrate that the voting patterns of workers in high-skilled tradable services appear to reflect US competitiveness in this sector. Examining the activities of US MNCs, Jensen, Quinn, and Weymouth (2014) show large gains from services liberalization in host countries; US MNCs expand employment, sales, and revenues following the foreign liberalization of payments for invisibles. This suggests that MNCs should favor reforms to financial current account transactions and other impediments to trade in services. Examining the consequences

⁴ The discrepancies in the value of services exports between the WTO numbers reported in Figure 1 and the US Census Bureau numbers reported in Figure 2 are due to the inclusion of government services in the census figures and other minor reporting differences.

⁵ Balassa (1965) proposed an index of “revealed comparative advantage,” which is equal to the value of a country's exports in one industry as a share of total exports, divided by the proportion of global exports from that same industry. An index value greater than one indicates a country's comparative advantage in that industry. The index for the United States is $(US\ Service\ Exports / US\ Exports) / (Global\ Service\ Exports / Global\ Exports) = 0.33 / 0.21 = 1.57$.

⁶ I refer collectively to such studies as the *political economy of trade* literature.

⁷ An important exception is Chase (2008), who examines protectionist demands by low-skilled workers in the motion picture services industry. Kim and Manger (2017) examine path dependence in the implementation of services provisions in preferential trade agreements. See also Hoekman, Mattoo, and Sapir (2007), who discuss the lack of progress in expanding and deepening the coverage of multilateral services liberalization commitments.

⁸ The goods bias in the political economy literature could be due to a variety of factors, including the following: (1) technological factors that, until recently, impeded the remote delivery of many services; (2) the difficulties of measuring services barriers (compared with tariff schedules, which are much easier to quantify); and (3) weaknesses in services trade data (more on this below). I thank an anonymous referee for raising these potential sources of bias.

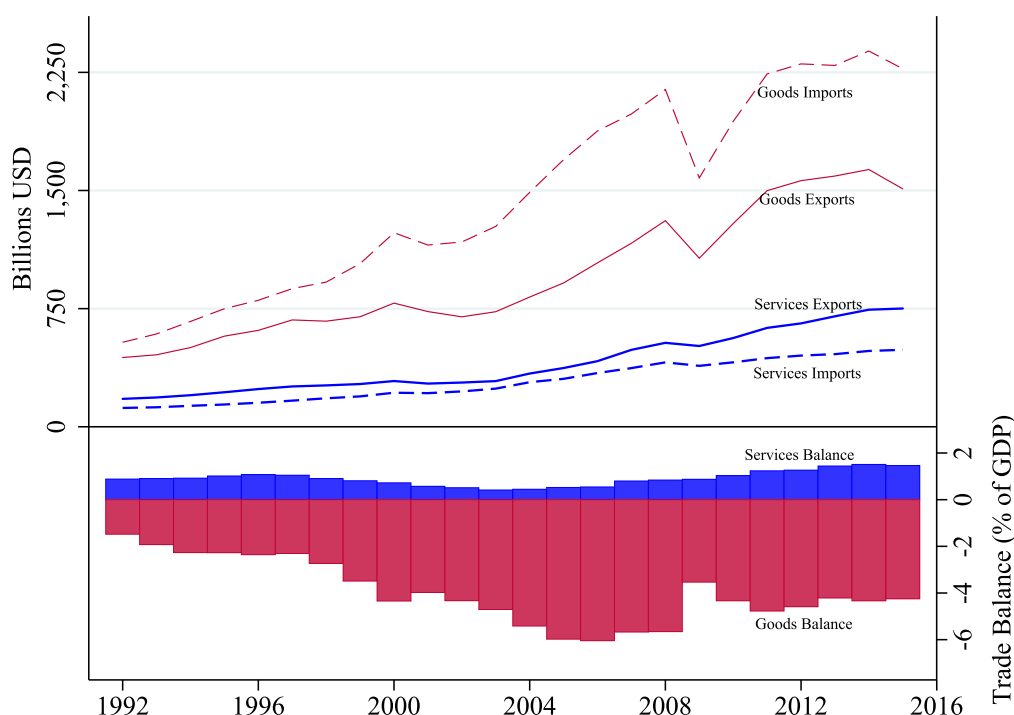


Figure 2. US trade in goods and services, 1992–2015

Note. Author's calculations using publicly available data from the Bureau of Economic Analysis (<https://www.bea.gov/international/index.htm>).

of occupational offshoring, including those in services, [Owen and Johnston \(2017\)](#) find that workers' attitudes toward trade reflect their susceptibility to job losses due to offshoring.

This article provides a first step toward incorporating the activities of service firms into analyses of trade policy, but carries with it several important limitations. I seek to provide a richer picture of the international activities of US services suppliers to help illuminate their trade policy objectives. However, the statistical analysis takes largely a descriptive form, and readers should not interpret any of the results to imply causal relationships. (More rigorous analyses will require firm-level data on the economic and political activities of service firms.) The political economy implications that I draw from the analyses thus remain somewhat speculative at this point; each requires much deeper theoretical and empirical scrutiny than I engage in here. With these caveats in place, I hope this article provides a useful distillation of the nature of—and the policy obstacles to—US services trade and initiates new interest in the participation of service firms in the politics of trade policy.

The article proceeds as follows. The first section provides an overview of the political economy of trade literature, highlighting the (relative paucity of) work on services trade and service firms. Next, I describe the various modes of services delivery and the ways in which US services exports are delivered internationally. I show that firms are more likely to trade in services through foreign direct investment (FDI) than through alternative modes of delivery. I present several stylized facts about the relationships between the trade in services and goods and the conditions related to services exports. I then discuss impediments to services trade and provide preliminary evidence of how these impediments are associated with decreased services trade volumes. The final section concludes.

Political Economy of Trade Literature

Despite the importance of services in international trade and in the support of global production activities, the political economy of trade literature primarily focuses on policies affecting goods trade (mainly tariffs) and the preferences of manufacturing firms and their employees with respect to these policies. Here I briefly survey the literature examining the demand side of trade policies, but leave aside a large body of work on the domestic institutional determinants of trade liberalization and protectionism.⁹

Foundational studies explaining trade policy rely on factor- and sector-based economic models to anticipate the expected winners and losers of trade and international financial flows ([Rogowski 1987](#); [Frieden 1991](#); [Hiscox 2002](#)). [Hiscox \(2002\)](#) shows that legislator support for trade between 1824 and 1994 reflects the expected distributive consequences of trade openness among class- and industrial-based constituencies. Other work emphasizes the trade-offs between national welfare and interest group pressures in the implementation or liberalization of tariffs ([Bailey, Goldstein, and Weingast 1997](#); [Bagwell and Staiger 1999](#); [Grossman and Helpman 1994](#)).

Another strand of the trade policy literature strives to explain variation in trade support *within* industries. This work increasingly builds on “*new, new* trade theory” or “*heterogeneous firm*” explanations of firms' participation in international trade ([Bernard and Jensen 1999](#); [Melitz 2003](#)). Accordingly, such studies find that firm-level differences in size, product differentiation, and location of their global operations determine firms' varied political stances toward trade liberalization ([Milner 1988a, 1988b](#); [Jensen, Quinn, and Weymouth 2015](#); [Kim 2017](#); [Osgood, Bernauer, Kim,](#)

⁹ However, I note that the institutionalist work tends to be similarly focused on goods trade restrictions.

Milner, Tingley, and Spilker 2017; Osgood 2016a, 2016b). For instance, Milner (1988a, 1988b) and Jensen, Quinn, and Weymouth (2015) demonstrate that firms with global supply chain operations are less protectionist. Barriers to trade restrict producers' opportunities to exploit country differences in the costs of the factors of production, which leads firms to lobby for trade liberalization with countries from which they source (Chase 2003; Manger 2009; Blanchard and Matschke 2015).

While the trade policy literature focuses almost exclusively on goods trade, a related literature on the politics of offshoring considers worker and policymaker responses to the movement of some services jobs overseas. Chase (2008) studies high- and low-skilled services workers in the motion picture services industry in the United States. He finds that the threat of low-skilled occupational offshoring leads low-skilled workers to demand forms of trade protection. Owen and Johnston (2017) demonstrate that workers susceptible to offshoring tend to oppose free trade,¹⁰ and Owen (2017) shows that members of Congress are less likely to support trade agreements if they have a preponderance of offshorable jobs in their district.

The literature on worker and voter vulnerabilities to offshoring suggests that political behavior such as voting may reflect exposure to trade competition and offshoring. Examining county-level US presidential election results, Margalit (2011) demonstrates that employment dislocations from goods import competition—measured as applications for Trade Adjustment Assistance (TAA)—weakened support for the incumbent in the 2004 presidential election. Feigenbaum and Hall (2015) examine the specific effects of economic shocks from Chinese import competition and find that legislators from exposed districts vote in a more protectionist manner. Autor, Dorn, Hanson, and Majlesi (2016) argue that the Chinese import shock increased polarization in US congressional districts. Overall, the literature shows that voters and their elected representatives respond politically to being on the losing side of trade.

New work has begun to examine the political activities of individuals who have benefited from increased economic integration. Jensen, Quinn, and Weymouth (2017) link the expansion of high-skilled tradable services (as well as worker exposure to manufacturing import competition) to voting in presidential elections. Since tradable services such as business services are consistent with a US comparative advantage, workers in high-skilled tradable services should benefit from the increased tradability of services (Jensen 2011). Jensen, Quinn, and Weymouth (2017) develop comprehensive measures of trade exposure in goods and services using census data covering nearly all economic activity in the United States. They find that concentrations of workers in high-wage tradable services are associated with increasing incumbent party vote shares (a proxy for voter satisfaction) in US presidential elections; concentrations of employment in low-wage tradable manufacturing are associated with diminished incumbent support. Consistent with Chase (2008), their study suggests that workers' support for trade openness is likely to depend on their industry of employment and skill level. How trade in services influences electoral politics and firms' lobbying activities is an exciting area for future research.

Varieties of International Services Trade

Services are distinct from manufacturing in a number of ways. Unlike goods, services are intangible and thus not storable, and their delivery often requires direct contact between the producer and consumer (Hill 1977). The classic example of a haircut provides the case in point: the services cannot be delivered remotely. The need for face-to-face delivery of many services has been referred to as the *proximity burden* (Francois and Hoekman 2010).

The proximity burden presents an inherent obstacle to international trade in services: producers often need to be present in the importing country in order to deliver the service.¹¹ This requirement is conceptually important for the analysis of services trade, since commercial presence is considered one of the main modes of international services delivery (Sampson and Snape 1985). Given the proximity burden, it is not surprising that "gravity" variables (for example, relative distance between countries, economic size, and language) explain not only trade in goods (Bernard, Jensen, Redding, and Schott 2007), but also trade in services (Breinlich and Criscuolo 2011; Kimura and Lee 2006; Eichengreen and Gupta 2013).

Due to advances in technology, many services inputs, like goods inputs, can be produced remotely. This fragmentation of the production process across multiple locations has clearly contributed to the growth in services trade.¹² However, the importance of the proximity burden for many services, including services inputs, means that, compared with the goods trade, services trade will more often require a local commercial presence or the cross-border movement of either producer or consumer (Francois and Hoekman 2010).

To address some of the complexities of international services trade, the WTO classified the four main modes of international services delivery as follows:

- **Mode 1** (cross-border supply): The services supplier and the consumer remain in their respective countries; the service crosses the border.
- **Mode 2** (consumption abroad): The consumer travels to the exporting country to obtain the service.
- **Mode 3** (foreign commercial presence): The service is supplied by a locally established affiliate or subsidiary of a foreign-owned company.
- **Mode 4** (movement of natural persons): The services supplier travels to the importing country to provide the service.

The inherent complexities in international services delivery complicate the gathering of accurate and comprehensive services trade statistics. Indeed, the lack of high-quality data on the multiple modes of services trade is one of the foremost obstacles to academic research in this area and likely accounts for much of the literature's emphasis on goods, as opposed to services. For example, monthly data are reported for US goods exports and imports, with most countries covering more than eight thousand product categories. In contrast, the US services trade statistics have covered only around forty categories annually since 2006, and fewer prior to that (for further details, see pp. 38–40 and

¹¹ Alternatively, the importer may travel to the exporting country to consume the service.

¹² While this article focuses on services exports (and thus service firms as producers of services), services producers are often consumers of services and goods. For instance, firms in nonmanufacturing sectors such as retail are major importers of goods. These firms will likely have strong preferences for trade liberalization in multiple industries. I thank an anonymous referee for emphasizing this point.

¹⁰ Mansfield and Mutz (2013) find that opposition to offshoring reflects nationalist sentiment more than economic interests.

Table 1. US international services

<i>Data</i>	<i>Services exports</i>	<i>Services supplied by majority-owned affiliates (MOFAs)</i>
Source	International transaction accounts (balance of payments)	BEA MNE surveys of MOFAs activities
Availability	1999–present	2004–present
Coverage (mode)	1, 2, and 4	3
Classification	Type of service	Primary industry of MNE affiliate
Major categories	Maintenance and repair services n.i.e.	Mining
	Transport	Manufacturing
	Travel (for all purposes including education)	Wholesale trade
	Insurance services	Retail trade
	Financial services	Information
	Charges for the use of intellectual property n.i.e.	Finance and insurance
	Telecommunications, computer, and information services	Professional, scientific, and technical services
	Other business services	Other industries
	Government goods and services n.i.e.	

Note: The data are available at <http://www.bea.gov/international/index.htm>. For additional details on the definitions and methodology of US trade in services, see https://www.bea.gov/international/concepts_methods.htm.

Appendix A of Jensen [2011]). In October 2016, the US Bureau of Economic Analysis (BEA) expanded the annual services trade data from forty-nine to ninety countries and areas. These additional data will prove useful in future research.

US trade statistics capture all four modes of international services trade. Modes 1, 2, and 4 are recorded and published by the BEA as services transactions between residents and nonresidents. The BEA records these transactions as imports and exports of services in the international transactions accounts, also known as the balance of payments. The services trade statistics (covering Modes 1, 2, and 4) include nine main categories.¹³ The BEA also covers Mode 3, the commercial presence mode of international services delivery, through annual surveys of majority-owned foreign affiliates of multinational enterprises (MOFAs).¹⁴

It is important to note that the two data sources on US international services (balance of payments and MNE activities) classify the data differently. The statistics on trade in services reported in the balance of payments (Modes 1, 2, and 4) are collected and reported by the *type* of services (thus only services industries are reported), whereas the MNE data on services supplied through MOFAs (Mode 3) are collected and reported according to the foreign affiliate's *primary industry* (thus the sales of services by affiliates in nonservices industries are included). According to the BEA, "affiliates in any industry can be providers of services because the classification of an affiliate reflects the affiliate's primary industry of sales and affiliates classified in industries that typically produce goods may have secondary activities in services industries."¹⁵ Table 1 summarizes the US data on trade in services.

¹³ Since 2006, the coverage has included around forty subcategories nested within the nine main categories: maintenance and repair services; transport; travel; insurance services; financial services; charges for the use of intellectual property; telecommunications, computer, and information services; other business services; and government goods and services.

¹⁴ Mode 3 is captured as the sale of services reported by MOFAs. The sales of services (and goods) by foreign affiliates are reported as data on the activities of multinational enterprises. These data are part of a wide variety of publicly available aggregates of financial indicators and operations of US MNCs. In contrast, FDI appears in international investment positions data in the balance of payments, which cover positions and transactions between parent companies and their affiliates.

¹⁵ https://www.bea.gov/international/international_services_definition.htm

Table 2. US exports, MNE sales, and FDI positions in goods and services

	<i>Total (billions USD)</i>	<i>Share</i>
US exports	2,293	
Goods	1,592	0.69
Services	701	0.31
Sales by foreign affiliates of US MNEs	5,758	
Goods	4,317	0.75
Services	1,441	0.25
US direct investment positions abroad	4,580	
Goods	624	0.14
Services	3,743	0.82
Services not including holding companies	1,515	0.33
Other	213	0.05

Note: The table contains 2013 data from the US BEA.

Table 2 provides data on the international engagement of US firms in goods and services. It summarizes US exports, the foreign sales of majority-owned affiliates of US multinational enterprises, and for the purpose of comparison, US FDI positions. Services make up 31 percent of total exports and 25 percent of total MOFA sales in goods and services. In terms of direct investment positions, services represent 33 percent of total assets (excluding holding companies). When holding companies are included, services represent 82 percent of US FDI positions abroad. This leads to the first stylized fact.

Fact 1: *Services represent a substantial proportion of US firms' exports, FDI, and MNE sales abroad.*

Figure 3 illustrates US services exports and imports (Modes 1, 2, and 4) among the nine main components of services trade, as of 2015. Travel accounts for \$177 billion and more than a quarter of US services exports. The US exports \$121 billion in business services, which include research and development, consulting (for example, legal, accounting, and management), and technical services (for example, architectural, construction contracting, engineering, and trade-related services). The US trade balance in business services is \$35 billion. In 2015, the United States ran a trade surplus in travel, business, intellectual property, financial, and maintenance and repair services; the data reveal

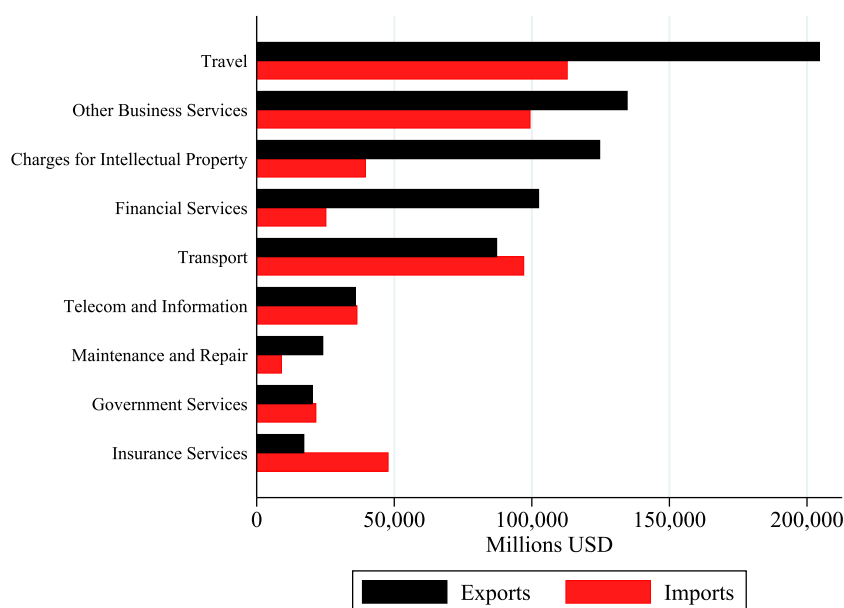


Figure 3. US services imports and exports (Modes 1, 2, and 4)

Note. The import and export values are from 2015. Author's calculations using publicly available data from the Bureau of Economic Analysis.

deficits in transport, telecom, government, and insurance services.

Fact 2: *The United States runs a trade surplus in services, which is driven by large surpluses in travel, business, finance, and intellectual property services.*

Moreover, majority-owned foreign affiliates of US MNEs supplied \$1.44 trillion in services in 2013 (the most recent year available). In contrast, US affiliates of foreign-owned MNEs sold \$980 billion in services in 2013.

Fact 3: *Majority-owned foreign affiliates of US MNEs sell a higher volume of services than do majority-owned US affiliates of foreign MNEs.*

Figure 4 breaks down the services supplied by MOFAs of US MNEs by the main industry of the foreign affiliate. Professional services include the following: architectural, engineering, and related services; computer systems design and related services; management, scientific, and technical consulting; advertising and related services; and other. Computer systems design and related services represents the largest provider of professional services, with \$92 billion in sales by US MOFAs.

IMPLICATIONS

The factor demands of tradable services have important implications for trade politics. Variation in workers' support for trade openness within the services sector appears to reflect their skill (or education) levels (Chase 2008). However, on average, tradable services are significantly more skill intensive than either manufactured goods or nontradable services (Jensen 2011; Gervais and Jensen 2013).¹⁶ Because the United States remains a relatively skill-abundant

country, it should have a comparative advantage in skill-intensive industries such as tradable services (as demonstrated here). Thus, US workers producing tradable services should gain from increased openness to US services exports (Jensen, Quinn, and Weymouth 2017). As a result, we may expect more widespread support for services liberalization and trade agreements among US tradable services industries as compared with manufacturing.

But industries don't trade—firms do—and so the expectation of services sector cohesion in favor of liberalization may be complicated somewhat by differences among firms. One important difference concerns participation in international trade: most firms do not trade or trade very little. It is now well established that goods exporters represent a small subset of the largest, most productive businesses (Bernard et al. 2007), and similar descriptors seem to apply to firms that export services (Breinlich and Criscuolo 2011).¹⁷ Moreover, large importers, such as those in the retail sector (such as Walmart), will benefit from the liberalization of services *as well as goods*.¹⁸

As a result of these firm-level differences in participation in international trade, we might expect stronger support for trade liberalization among the most productive firms within tradable services industries. To the extent that trade is dominated by a small group of large firms, support for liberalization may be much more intense among these influential companies, which stand to gain the most from further liberalization. Future research should examine which US service firms support trade liberalization, which (if any) oppose it, and why.

¹⁷ Focusing on the effects of preferential trade liberalizations, Baccini, Pinto, and Weymouth (2017) examine the universe of US MNCs in goods and services industries and find that the trade gains from preferential liberalization are concentrated among the largest, most productive multinationals.

¹⁸ For the relevance of imports of intermediates in trade politics, see Osgood (forthcoming).

¹⁶ While many services are tradable, others are not, due to technological barriers that make the proximity burden insurmountable. Workers in these nontradable services are unlikely to be engaged on trade policy issues.

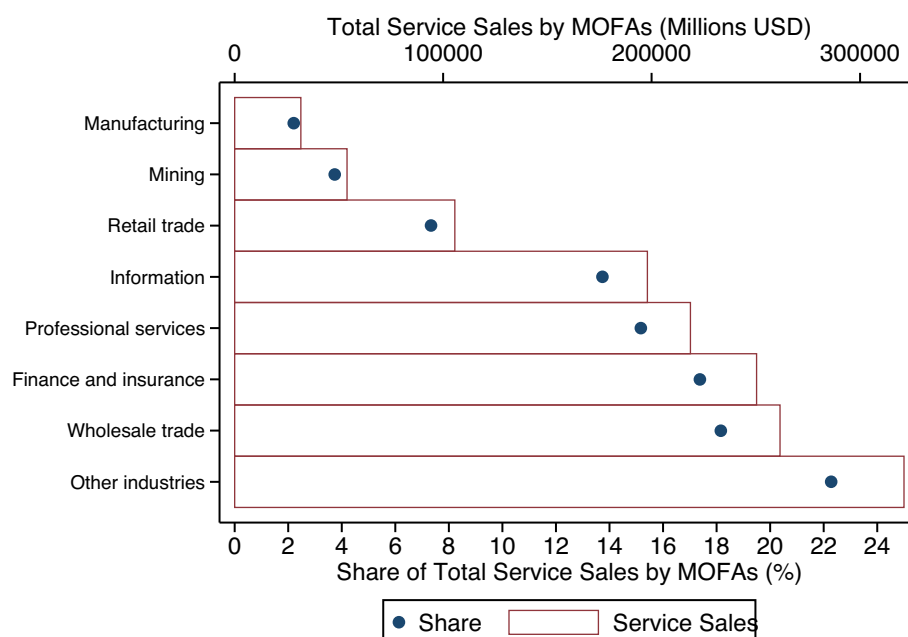


Figure 4. Services supplied by majority-owned foreign affiliates of US multinationals (Mode 3)

Note. The values are from 2013. Author's calculations using publicly available data from the Bureau of Economic Analysis. The category *other industries* includes the following: utilities (\$37 billion), transportation and warehousing (\$67 billion), health care and social assistance (\$5 billion), accommodation and food services (\$5 billion), and other.

Additional Stylized Facts about US Trade in Services

This section reports a number of additional stylized facts about trade in services, focusing specifically on the United States, since it is the world's leading exporter of services. I first examine the relative importance of the alternative modes of services trade for US services exporters. I then analyze the relationship between the destinations of goods exports and services exports. The final set of stylized facts concerns the relationship between services trade restrictions and the international delivery of services by US firms.

FDI as a Form of US Services Trade

I next report statistics on the relative value of services trade through alternative modes of delivery. I find that the vast majority of US international services are delivered abroad through a foreign commercial presence (Mode 3), reflecting the importance of physical proximity to customers.

Table 3 reports the total exports and total sales of goods and services by majority-owned foreign affiliates of US MNEs. In 2013, the United States exported \$701 billion in services and supplied \$1.02 trillion in services to local customers in their host markets through FDI. Thus, the delivery of services through a commercial presence abroad (Mode 3) is about 1.5 times as large as the combination of Modes 1, 2, and 4 services exports. As shown in Table 3, the ratio of local sales to exports in services is nearly the same as for goods.

Fact 4: *Mode 3 accounts for a higher volume of international services delivery than services exports through Modes 1, 2, and 4.*

Next I examine the simple relationship between trade in services through Modes 1, 2, and 4 and the foreign sales of services through commercial presence (Mode 3). Figure 5 is a scatterplot of services exports against Mode 3 services sales. With few exceptions, the relationship is very strong;

Table 3. Exports vs. FDI, services and goods

	2009	2010	2011	2012	2013
US exports					
Services	513	563	628	656	701
Goods	1,070	1,290	1,499	1,563	1,592
Sales to host country by US MNE MOFAs					
Services	851	903	983	1,011	1,028
Goods	1,883	2,078	2,416	2,397	2,412
Host country MOFA sales to exports ratio					
Services	1.66	1.60	1.57	1.54	1.47
Goods	1.76	1.61	1.61	1.53	1.52

Note. Author's calculations based on publicly available data from the BEA. The trade and sales figures are reported in billions of USD.

high values of services exports are strongly correlated with Mode 3 services sales.¹⁹

Fact 5: *Measured at the level of the foreign country, US services exports correlate with services sales by majority-owned foreign affiliates of US MNEs. That is, Mode 3 appears to complement Modes 1, 2, and 4.*

IMPLICATIONS

Despite advances in technology and transit, the proximity burden remains an important consideration for services trade. Since Mode 3 is such an important form of services trade by US firms, FDI restrictions represent a major obstacle to international services delivery (on the politics of FDI restrictions, see Pandya [2014]). Therefore, we should expect that competitive US services providers will favor re-

¹⁹ Conditioning on GDP, the relationship between services exports and MOFA services sales remains very strong. The ordinary least squares regression coefficient and standard error are 1.14 and 0.077, respectively.



Figure 5. Services exports and MOFA services sales

Note: The y-axis displays the natural log of services sales by majority-owned foreign affiliates of US MNEs. The values are from 2013. Author's calculations using publicly available data from the Bureau of Economic Analysis.

forms that facilitate FDI in services. More generally, it appears that the conditions that increase demand for US services exports also increase demand for services delivered through a commercial presence.

Destinations of US Services Exports

I now examine how conditions in trade partner countries correlate with services trade and services delivery through a commercial presence.

Figure 6 is a scatterplot of US exports of goods and services at the level of the importing country. With few exceptions, the value of goods exports correlates with the value of services exports. It also appears that countries with higher services imports relative to goods imports are somewhat wealthier; a simple regression of the ratio of services exports to goods exports regressed on the log of GDP/capita (not reported) indicates a positive relationship (p -value = 0.027).

Fact 6: *Measured at the level of the importing country, US exports of goods and services are highly correlated.*

Similarly, Figure 7 reveals a strongly positive relationship between the sale of goods and services by majority-owned foreign affiliates of US MNEs.

Fact 7: *Measured at the level of the foreign host country, the sale of services correlates with the sale of goods by majority-owned foreign affiliates of US MNEs.*

IMPLICATIONS

The fact that US services trade and investment is concentrated in countries with high levels of goods trade and MNE goods sales indicates that similar demand conditions exist across countries. The correlations could also be the result of the interconnectedness of goods and services, as

well as the fact that trade in services facilitates the trade of goods. The correlation between goods-related FDI sales and Mode 3 services sales also supports the view that an existing business presence helps overcome informational barriers to entry in services (Raff and von der Ruhr 2007). An interesting area of future work would be to examine the degree to which US manufacturing FDI precedes services FDI. To the extent that the expansion of goods sales (either to the host country or to third countries) relies on services intermediates, MNCs in both the services and manufacturing sectors are likely to support services liberalization abroad.

Policy Impediments to Trade in Services

Firms that deliver services across borders face different impediments than those exporting goods internationally. The obstacles to goods trade—such as tariffs or quotas—generally occur at the border, whereas restrictions on services delivery tend to involve so-called behind-the-border regulations (Nordås and Rouzet 2017). Because of the complexity of services trade, which in many cases includes the proximity requirement for the delivery of services, many of the policies that restrict services trade will differ from those that restrict trade in goods. Examples of services trade restrictions include (but are not limited to) the following:²⁰

- discriminatory licensing and certification requirements for foreign professionals
- restrictions on data flows (for example, forced localization of servers)
- subsidization of domestic services providers
- restrictions on the movement of workers, including temporary business visa restrictions
- restrictions on FDI

²⁰ These examples are from Fefer (2015).

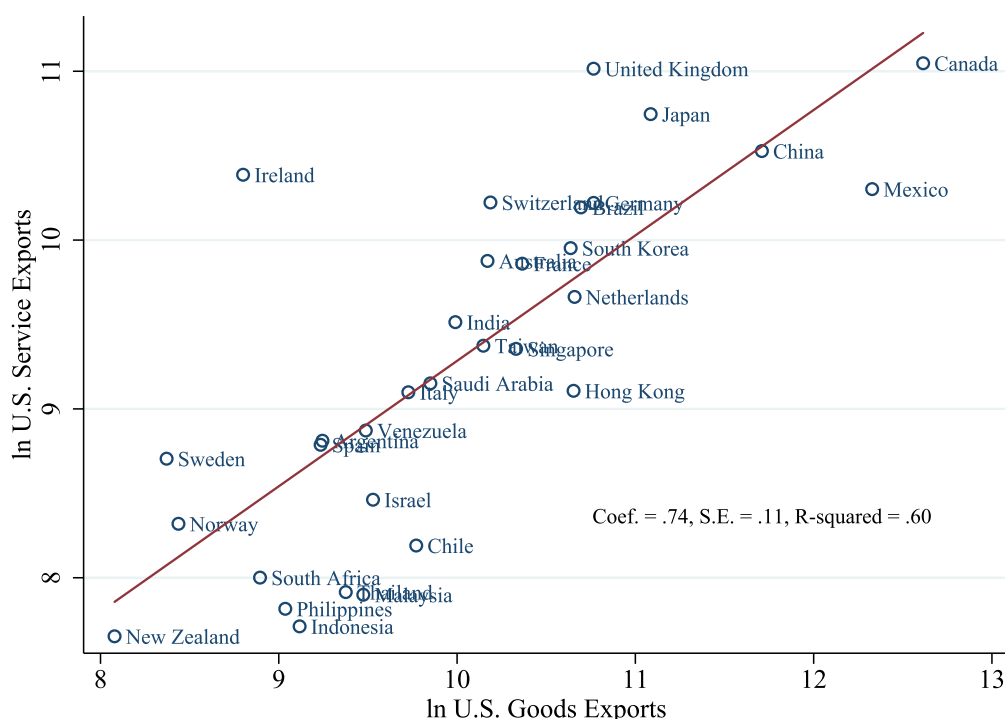


Figure 6. US exports of goods and services

Note. The values are from 2013. Author's calculations using publicly available data from the Bureau of Economic Analysis.

- restrictions on international payments such as profit repatriation, currency conversions, and current account transactions such as payments for invisibles

In general, the set of restrictions on services trade is immense, and may differ from the set of barriers to trade in goods. While many of the constraints on services trade can also restrict goods trade—for instance, temporary trade barriers and subsidies or regulations such as sanitary and phytosanitary measures—a wide array of policy tools can protect domestic service firms from foreign competition, some of which are applicable to goods and some of which are not.

Services trade restrictions may explicitly discriminate against foreign firms, or they may affect all firms, including domestic suppliers. Examples of discriminatory barriers include restrictions on FDI such as limits on (or the direct prohibition of) foreign equity ownership or nationality quotas for managers of foreign affiliates. Nondiscriminatory entry barriers may, for example, limit the number of providers in a market regardless of nationality. Services trade liberalization is generally thought to mean actions taken by governments to reduce discrimination. However, since nondiscriminatory barriers may still exist that impede services trade, foreign firms (and governments) may also seek concessions related to nondiscriminatory regulations.

Researchers have begun to measure impediments to international services trade across different modes of delivery. The research to date attempts to distinguish between policies that affect fixed costs by restricting entry into the market and those that increase firms' operating (variable) costs (Deardorff and Stern 2008; Francois and Hoekman 2010). The best-known indexes of services trade are the World Bank's Services Trade Restrictions Database (STRD) (Borchert, Gootiiz, and Mattoo 2014) and the OECD's Services Trade Restrictiveness Index (STRI) (Nordås and

Rouzet 2017).²¹ The STRD covers restrictions in five main industries (financial services, telecom, retail, transportation, and professional services) and 103 countries as of 2010. The STRD data were gathered from publicly available sources in the case of OECD countries and from questionnaires completed by local law firms in non-OECD countries. The STRI is based on a coding of laws on the books. It captures measures affecting trade in eighteen services sectors and forty countries as of 2013. For each sector, the STRI measures the following: restrictions on foreign entry, restrictions on the movement of people, barriers to competition, regulatory transparency, and other discriminatory measures.

Other potential barriers to services trade appear as restrictions on current and capital account transactions. Quinn and Toyoda (2008) measure capital account and financial current account restrictions that are relevant to trade in services. Indeed, capital account restrictions are important impediments to Mode 3 trade to the extent that these restrictions bar or impede the establishment of foreign affiliates through which US MNCs (in any sector) sell services to foreign markets. But impediments to financial payments for invisibles (i.e., services) recorded on the current account (for example, royalties, licenses for intangible property, headquarter consulting fees, insurance, financial services) are particularly germane to firms' (often internal) transfers of knowledge (Keller and Yeaple 2013). Jensen

²¹ Other work has begun to examine services trade provisions in preferential trade agreements (PTAs) (Roy 2011; Dür, Baccini, and Elsig 2014). Roy (2011) codes Mode 3 restrictions for 152 subsectors and Mode 1 restrictions for 142 subsectors. Dür et al. (2014) examine services chapters in the universe of PTAs and code whether national treatment clauses exist, whether there are explicit provisions providing for the movement of natural persons beyond GATS, and whether the provisions for specific services sectors exists. Dür et al. (2014) capture whether services commitments are based on a positive or negative list approach. US PTAs have used the negative list approach, which is thought to lead to deeper commitments.

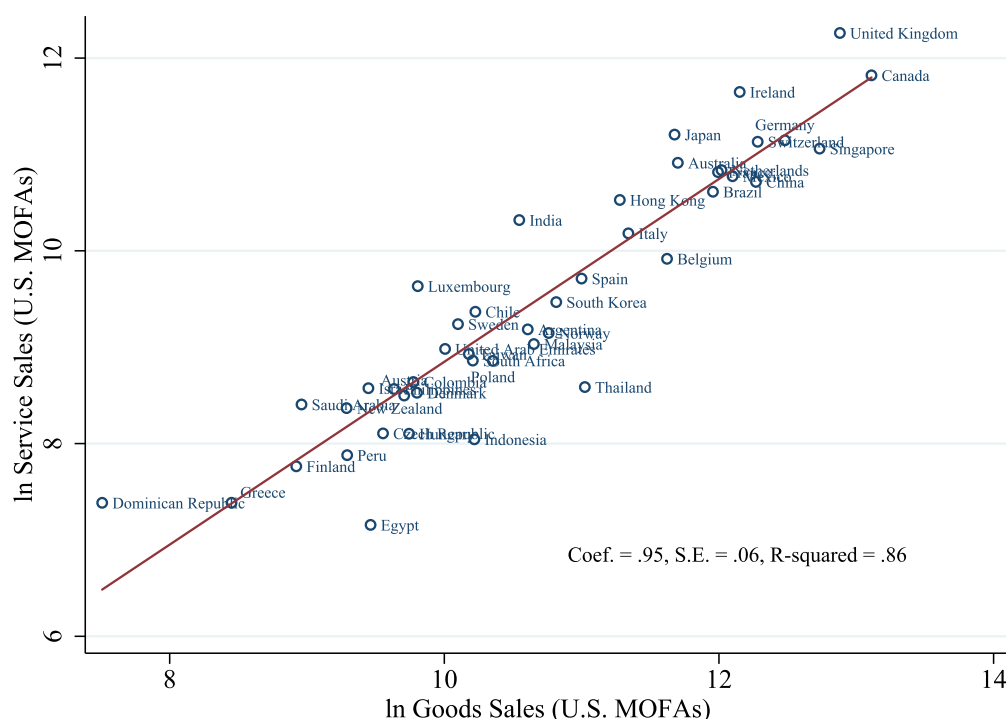


Figure 7. Sales of goods and services by foreign affiliates of US MNEs

Note: The data displayed are the natural log of the total goods and services sales by majority-owned foreign affiliates of US MNEs. The values are from 2013. Author's calculations using publicly available data from the Bureau of Economic Analysis.

et al. (2014) demonstrate that restrictions of services payments on the financial current account restrict the expansion of US MNC activities abroad.

Here I report the results of a simple analysis of the relationship between (1) foreign country services trade restrictions and (2) US exports of services, and services provided by US MNEs. To enable comparability with existing studies that account for the effects of gravity, I include bilateral distance, common language (English), and (the natural log of) GDP as control variables. To capture barriers to services trade, I include the STRD,²² STRI,²³ and the Quinn and Toyoda (2008) index, which measures restrictions on resident payments for invisibles (PAYINV).²⁴ The results should be viewed as descriptive. The analysis intends to probe the plausible association between services restrictions and services trade. A more rigorous approach in future research should consider how liberalizations affect services trade over the medium to long term, while also considering other factors related to FDI and services trade, including tax rates, exchange rates, and other policies. It will also be important to estimate the determinants of trade flows at the individual firm level.

Table 4 reports the results of cross-sectional regression estimates of services sales of MOFAs (columns 1–3) and services exports (columns 4–6), measured at the level of the importing country. Beginning with the Mode 3 models, I find that restrictions on services trade (measured using the STRI and the STRD) are associated with lower US exports of services. The results in column 1 indicate that an improvement in the STRI from around the twenty-fifth percentile

(Poland) to the seventy-fifth percentile (Australia) is associated with a 25 percent increase in Mode 3 sales. Figure 8 is a partial regression plot of the relationship between STRI and Mode 3 sales of services, accounting for the control variables; outliers do not appear to drive the strong correlation. The results are consistent with prior work demonstrating that services trade restrictions reduce services trade flows (Nordås and Rouzet 2017). The results also indicate a strongly negative association between restrictions on payments for invisibles and Mode 3 services; the correlation is weaker with respect to services exports and does not achieve statistical significance. However, services restrictions (captured by STRI and STRD) are associated with lower services exports and lower Mode 3 services sales.

Fact 8: *Measured at the level of the importer country, higher services restrictions abroad are associated with lower US services exports.*

IMPLICATIONS

Given the importance of services restrictions to trade in services, it is likely that US firms, including MNCs and exporters of goods and services, will strongly favor the liberalization of foreign impediments to services trade. Since these restrictions likely influence trade in both goods and services, the coalition in support of services liberalization may include the largest, most productive manufacturing firms, which dominate goods trade (Bernard et al. 2007), as well as tradable services providers.

The US government has pushed for reductions in services trade barriers in trade partner countries through a number of channels. An early effort began with the Trade Act of 1974, which instructed the Ford administration to pursue services liberalization during the Tokyo Round of the General Agreement on Tariffs and Trade

²² I take the average level of restrictions across all sectors.

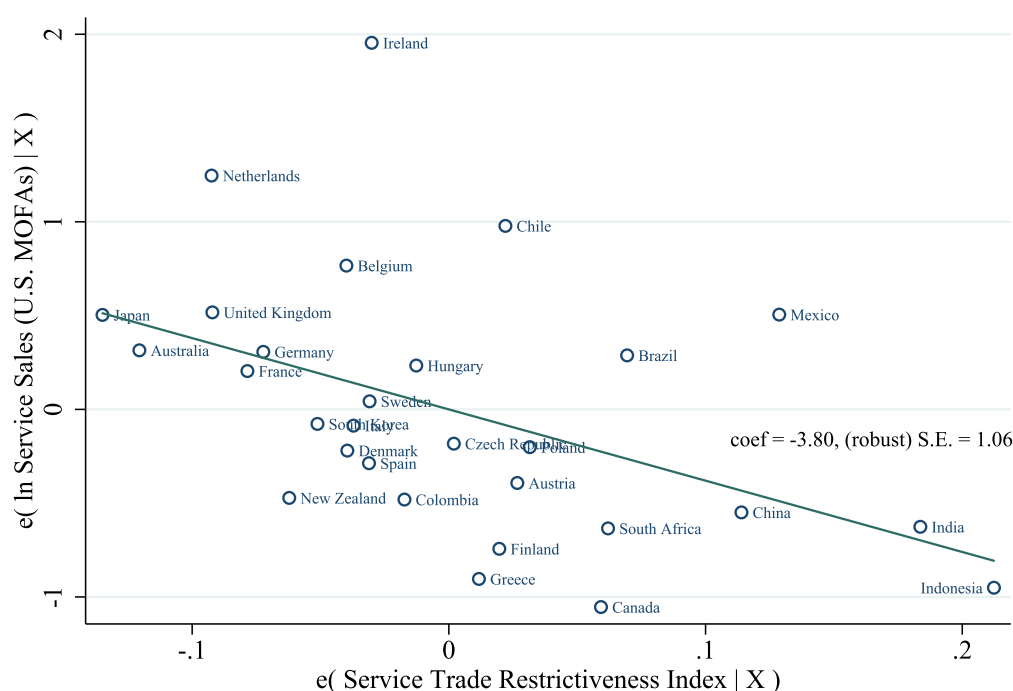
²³ I use the index of overall services trade restrictiveness.

²⁴ PAYINV is transformed so that higher values indicate higher restrictions on invisibles payments.

Table 4. Correlates of US services exports

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Services sales (US MOFAs)</i>			<i>US services exports</i>		
ln GDP	0.966*** (0.100)	0.963*** (0.101)	0.949*** (0.104)	0.778*** (0.142)	0.810*** (0.131)	0.782*** (0.155)
ln distance to US	-0.474* (0.258)	-0.472* (0.262)	-0.506 (0.298)	-0.493** (0.198)	-0.455** (0.194)	-0.514** (0.229)
English	1.174*** (0.361)	1.238*** (0.377)	1.273*** (0.381)	0.562* (0.265)	0.641** (0.276)	0.640** (0.265)
STRI	-3.800*** (1.061)			-2.339** (1.096)		
STRD		-0.028*** (0.010)			-0.022** (0.010)	
PAYINV			-0.679*** (0.194)			-0.341 (0.255)
Constant	-12.026*** (3.510)	-12.175*** (3.464)	-11.727*** (3.847)	-7.408 (4.667)	-8.657* (4.251)	-7.651 (5.087)
R-squared	0.795	0.787	0.765	0.713	0.726	0.679
N	29	29	29	20	20	20

Note: The dependent variable in columns 1–3 is the natural log of services sales by majority-owned foreign affiliates of US MNEs; in columns 4–6 it is the natural log of total services exports. Both variables are measured at the level of the trade partner country. The STRI is the OECD's Services Trade Restrictiveness Index (Nordås and Rouzet 2017), and the STRD is the World Bank's Services Trade Restrictions Database (Borchert et al. 2014). PAYINV is an index measuring restrictions on resident payments for invisibles from Quinn and Toyoda (2008). English is a dummy variable equal to 1 if the country's official language is English. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

**Figure 8.** Services restrictions and Mode 3 services exports

Note: Partial regression plot based on the estimates from column 1 of Table 4.

(GATT), the predecessor to the WTO. Though unsuccessful during the Tokyo Round, services liberalization became part of the subsequent Uruguay Round agreement as a set of rules known as the General Agreement on Trade in Services (GATS). The GATS, which entered into force in 1995, represents the only multilateral rules for services trade.²⁵

²⁵ Under the GATS, if a country chooses to open its services markets to foreign suppliers, the GATT most-favored nation principle applies. This

The United States pushed for additional measures during the Doha Round negotiations, which began in 2001 but have yet to conclude. The priorities of US negotiators include re-

means that all liberalization commitments will apply to all WTO members. Countries' participation in the agreement is based on a *positive list* approach. This means that the list of liberalization commitments, delineated by sector, represents the schedule of services liberalizations; nonlisted services may remain closed to foreign providers. For additional details on the GATS, see https://www.wto.org/English/tratop_e/serv_e/gats_faction1_e.htm.

moving restrictions on commercial presence, improving and extending GATS commitments, increasing transparency in regulatory barriers, and expanding market access (Fefer 2015). Developing countries have resisted opening their services markets, which remain more protected than those of developed countries. Another obstacle to progress in the Doha Round is the inherent complexity and the wide range of activities considered services (Fefer 2015).

Slow multilateral progress has contributed to the turn toward services liberalization through PTAs, which the United States has signed and implemented with twenty countries. Services commitments within US PTAs follow a negative list approach; market access is provided for all services and all modes of delivery unless the partner country explicitly lists the service/mode as restricted. Reflecting the objectives of US services providers, all US PTAs include extensive liberalizations of services that extend beyond the GATS.

The Trade Promotion Authority (TPA) passed by Congress in 2015 (H.R. 2146, 2015) provides further evidence of the strong political support among US firms for reduced barriers and the greater facilitation of trade in services. Section 102.b.2.A states the following:

The principal negotiating objective of the United States regarding trade in services is to expand competitive market opportunities for United States services and to obtain fairer and more open conditions of trade, including through utilization of global value chains, by reducing or eliminating barriers to international trade in services, such as regulatory and other barriers that deny national treatment and market access or unreasonably restrict the establishment or operations of service suppliers.

The TPA gave the president the authority to negotiate large regional trade agreements, including the Trans-Pacific Partnership and the Trans-Atlantic Trade and Investment Partnership. The TPA also covers negotiations over the proposed Trade in Services Agreement, over which twenty-three WTO members began negotiations in 2013.²⁶ Future work should examine firms' political engagement over the services components of US PTAs and other trade agreements.

Conclusion

This article provides a set of stylized facts related to trade in services by US services exporters and MNCs that underscore the salience of services trade and services restrictions for US firms. Services represent a large and growing proportion of US exports, and firms deliver services internationally through a variety of modes. A principal channel of services trade is through the establishment of a foreign affiliate presence in the importing country. A wide range of policies in partner countries restrict services exports and FDI.

The expansion of tradable services carries with it potentially important implications for trade politics. The US comparative advantage in high-skilled tradable services should lead US firms to push for services liberalization between the United States and trade partner countries. However, governments can implement numerous and complex policy restrictions on services trade, and, depending on which services they provide and the modes of delivery they employ, service firms can have very different objectives with respect to liberalization. These diverse interests among service firms may

complicate the policy objectives and the organization of the US coalition for services liberalization. This study also suggests that the important role of services in the facilitation of disintegrated global production should lead competitive manufacturers in the United States to support services liberalization. Each of these assertions remains speculative; future work should rigorously examine these and other claims related to firms' political engagement over services trade. In sum, it seems that a consideration of service firms, their policy objectives, and the wide array of services trade restrictions will allow for a more comprehensive account of international trade and investment politics.

Supplementary Information

Supplementary information may be found at yasutakatominaga.com and at the *International Studies Quarterly* data archive.

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²⁶ Barring unforeseen changes in the protectionist stance of the current US administration, progress on these megaregional and plurilateral deals is considered unlikely in the near term.

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