

# Data in Macro Development: International Trade

David Atkin

MIT

STEG Virtual Conference

# Data in International Trade

- The field of international trade is a big tent
  - Trade economists are active contributors to urban economics, spatial economics, firms in developing countries, migration, labor economics, innovation, misallocation
  - Datasets relevant to these topics are covered to various degrees in other lectures
- So today I will narrowly focus on the bread and butter of trade data:
  1. Trade flows
  2. Trade barriers

# What Can We Do With Trade Flows and Barriers Data

- Sometimes we want to better understand patterns in the trade data as motivation for a model
  - E.g. a set of stylized facts about who trades what with who, or the sequence of destinations added by an exporter, or the evolution of volumes over time
- Sometimes we want to test our models/quantify mechanisms/estimate parameters
  - Test comparative statics (old school), match moments in the data and quantify after checking fit (new school, see Adao, Costinot, Donaldson 2023 for testing such models), estimate key elasticities (e.g. trade elasticities from gravity regressions)
- Sometimes we want to see how reductions in (policy-relevant) trade barriers affect flows or other outcomes
  - E.g. impacts of tariffs, or infrastructure, or customs reforms, or trade policy uncertainty
- Of course, often we are interested in the effects of trade on  $X$  in which case you will need to go back and listen to the other lectures for the  $X$ 
  - E.g. trade on inequality, trade on human capital acquisition

# Trade Flows in the Aggregate

- Bilateral trade flows
  - Countries collect import and export flows in to/out of their countries
  - These data are reported to the United Nations and made available at the HS6 origin-destination month level through COMTRADE

**Trade Data** Home > Data > Trade Data

Caution: The results depend on available reported data, and the level of details may vary.

Information: Please select variables from each of the following sections to view the report. You can select from previously saved searches from 'My Saved Searches' dropdown

**What are you looking for?**

Type of Product:  Goods  Services

Frequency:  Annual  Monthly

Classifications:  HS  SITC  BEC

As Reported

**Refine your search**

HS (as reported) Commodity Codes:

Periods (year, month):

Reporters:

Partners:

2nd Partner:

Trade Flows:

Modes of Transport:

Customs Codes:

**Set your query options**

Breakdown Mode:

Aggregate By:

# Trade Flows in the Aggregate

Showing 1 to 25 of 215 Results

Extended Columns



Period	Trade Flow	Reporter	Partner	2nd Partner	Customs Desc	Transport Mode	Commodity Code	Trade Value (US\$)	Net Weight(kg)	Gross Weight	Qty Unit	Qty	Alternate Quantity unit	Alternate Quantity
202103	M	Andorra	World	World	TOTAL CPC	TOTAL MOT	300310	\$321	1	0 kg		1	kg	1
202103	M	Angola	World	World	TOTAL CPC	TOTAL MOT	300310	\$208	261	0 kg		261	kg	261
202103	M	Argentina	World	World	TOTAL CPC	TOTAL MOT	300310	\$427,050	3,589	0 kg		3,589	kg	3,589
202103	M	Australia	World	World	TOTAL CPC	TOTAL MOT	300310	\$122,967	679	1,117 kg		679	N/A	0
202103	X	Australia	World	World	TOTAL CPC	TOTAL MOT	300310	\$65,824	161	199 kg		161	kg	161
202103	M	Bahrain	World	World	TOTAL CPC	TOTAL MOT	300310	\$15,651	44	0 kg		44	kg	44
202103	M	Barbados	World	World	TOTAL CPC	TOTAL MOT	300310	\$125	3	0 kg		3	kg	3
202103	M	Belgium	World	World	TOTAL CPC	TOTAL MOT	300310	\$2,664	3	0 kg		3	kg	3
202103	X	Belgium	World	World	TOTAL CPC	TOTAL MOT	300310	\$6,319	31	0 kg		31	kg	31
202103	M	Bolivia (Plurinational State of)	World	World	TOTAL CPC	TOTAL MOT	300310	\$11,631	140	0 kg		140	kg	140
202103	M	Brazil	World	World	TOTAL CPC	TOTAL MOT	300310	\$618,123	2,460	0 kg		2,460	kg	2,460
202103	X	Brazil	World	World	TOTAL CPC	TOTAL MOT	300310	\$55	9	0 kg		9	kg	9
202103	X	Bulgaria	World	World	TOTAL CPC	TOTAL MOT	300310	\$216,651	435	0 kg		435	kg	435
202103	M	Myanmar	World	World	TOTAL CPC	TOTAL MOT	300310	\$32	0	0 kg		0	kg	0
202103	M	Australia	World	World	TOTAL CPC	Air	300310	\$122,967	679	1,117 kg		679	N/A	0
202103	M	Brazil	World	World	TOTAL CPC	Air	300310	\$618,123	2,460	0 kg		2,460	kg	2,460
202103	M	Myanmar	World	World	TOTAL CPC	Air	300310	\$32	0	0 kg		0	kg	0
202103	M	Angola	World	World	TOTAL CPC	Sea	300310	\$208	261	0 kg		261	kg	261
202103	X	Brazil	World	World	TOTAL CPC	Sea	300310	\$55	9	0 kg		9	kg	9
202103	M	Bolivia (Plurinational State of)	World	World	TOTAL CPC	Road	300310	\$11,631	140	0 kg		140	kg	140
202103	X	Bulgaria	World	World	TOTAL CPC	Road	300310	\$216,651	435	0 kg		435	kg	435
202103	X	Australia	World	World	TOTAL CPC	Other	300310	\$65,824	161	199 kg		161	kg	161
202103	M	Myanmar	World	World	Clearance for home use	TOTAL MOT	300310	\$32	0	0 kg		0	kg	0
202103	M	Myanmar	World	World	Clearance for home use	Air	300310	\$32	0	0 kg		0	kg	0
202103	X	Bulgaria	World	World	CPC N.E.S.	TOTAL MOT	300310	\$216,651	435	0 kg		435	kg	435

# Trade Flows in the Aggregate

- **Bilateral trade flows**
  - Countries collect import and export flows in to/out of their countries
  - These data are reported to the United Nations and made available at the HS6 origin-destination month level through COMTRADE
  - Lots of other sources pull from this
    - Feenstra cleans 1962-2000 data (with some bottom coding), give primacy to importer, corrections for HK/China reexporting etc.
      - Comparing exporter to importer records suggestive of tariff avoidance/evasion (e.g. Fisman Wei 2004)
    - World Integrated Trade Solution (WITS) bundles with tariff and non-tariff measures
      - More on this later
    - CEPII BACI includes bilateral distance variables to measure gravity regressions, languages etc

# Detour on Gravity Regressions

- “Gravity” predicts that trade flows depend on country size and distance in multiplicative fashion
  - Can be derived from many trade models, with and without imperfect competition
  - “Structural gravity” requires regressions of origin-destination log trade flows on bilateral frictions and origin and destination fixed effects
    - To capture multilateral resistance—high trade costs from others to destination, to other places served by origin
  - See Anderson van Wincoop 2003; Head Mayer 2014 for extensive discussion
  - Extremely good fit, touted as strongest relationship in economics, see, Trefler Lai 2002 for how most of that good fit comes from fact big countries make and buy more (e.g. market clearing)

# Service Trade

- Service trade increasingly important and under-researched
  - Much easier to track movements of goods across borders, quantities better defined
  - WTO-OECD Balanced Trade in Services (BaTiS)
    - Complete, consistent, and balanced matrix of international trade in services (including ICT as well as transport, travel, business, etc.)
    - 2005-2021, 12 Sectors
  - WTO Trade in Services by Mode of Supply (TISMOS)
    - Cross-border supply (e.g. call centers), consumption abroad (e.g. tourism), foreign presence (e.g. overseas bank branch), movement of persons (e.g. foreign technician)
    - 2005-2022, 55 Sectors
  - Digitally Delivered Service Trade Dataset
  - Trade in Workers (e.g. EU Job Posting scheme Munoz 2023, 2024), tourism (Faber and Gaubert 2019)
  - Specific countries have more detailed surveys (e.g. ITES in India), specific firm microdata?



# Disaggregated Trade Flows

- Increasingly, trade literature interested in firm-level mechanisms and firm-level heterogeneity, or even more granular (e.g. buyer-seller-good)
  - In part driven by increasing data availability
  - While firm-level heterogeneity now reasonably well understood, characteristics, dynamics and importance of relationships in trade a more recent agenda (e.g. see Antras Chor 2022 review, Macchiavello papers)
- For any particular country, raw trade data is at transaction level
  - Data collected by customs at the transaction level (buyer-seller-good-shipment)
  - All countries record the domestic partner, some countries also collect the foreign partner
- Sources
  - Particular country's central bank or statistical agency (but confidential)
  - In some cases data available to purchase (with varying degrees of legality)
  - World Bank Exporter Dynamics Database (70 countries, aggregates publicly available)

# Disaggregated Trade Flows

- Bills of lading filed at ports have most of this information
  - Shipper and consignee typically available, very detailed product description, high frequency and timely (see Flaaen et al. 2021 for further descriptions)
  - May not be values, no use of harmonized product codes/names

Table 1: U.S. import data description for select variables

Raw variable	Description
arrivaldate	Arrival date of shipment
shpname	Entity Resolved name of the shipper
conname	The party to take final delivery of the merchandise
shpmtorigin	Location from which shipment left for the U.S
portoflading	Port of lading
portofunlading	Port of unloading
weightkg	Shipment weight in kilograms
vessel	Name of the vessel that transported the goods
Imputed variable	Description
panjivarecordid	Unique Panjiva ID for shipment record
shppanjivaid	Unique Panjiva ID for party acting as shipper
conpanjivaid	Unique Panjiva ID for party acting as consignee
volumeteu	Volume of shipment in TEU
valueofgoodsUSD	Value of goods in USD
hscode	Harmonized Item Description and Coding System (HS)
companyid	Capital IQ company ID

- Sources

- Panjiva, ImportGenius, Datamyne, PIERS

# Disaggregated Trade Flows

- Sometimes other goodies in the trade flows data
  - Australia/US has shipping costs
    - Shapiro 2016 uses for estimating trade elasticities via gravity regression, otherwise estimating product of elasticity of trade costs to distance and trade to trade costs
  - Turkey records financing status (open account, cash-in-advance, letter of credit etc.) (Demir Javorcik 2018)
    - To understand credit terms, others have used single firms customer records (e.g. Antras Foley 2015)
    - Trade credit in general underexplored, see Esposito Hassan 2023 on US trade credit from Compustat, Benmelech Monteiro 2023, Kabir et al 2024 on EXIM bank closure with EXIM loans publicly available

# Trade Flows within Countries

- Sometimes we want to know about domestic trade flows,
  - Either for domestic trade questions (or international trade  $Q$  where outcome is missing internationally) or to think about supply chains of imported/exported products
- As few countries have internal customs, need alternative sources
  - Exception India pre GST, railway shipments data in India e.g. Donaldson (2018)
- Internal flows by transport mode from vehicle manifests (may be no values)
  - Truck shipments in Colombia (Allen, Atkin, Castillo, Hernandez 2024)
- US Commodity Flow Survey is sample of firm-to-firm shipments in US
  - E.g. Hillberry Hummels (2002) on colocation of producers and suppliers
- Firm-to-firm flows from tax data (see Bernard and Moxnes 2018 review)

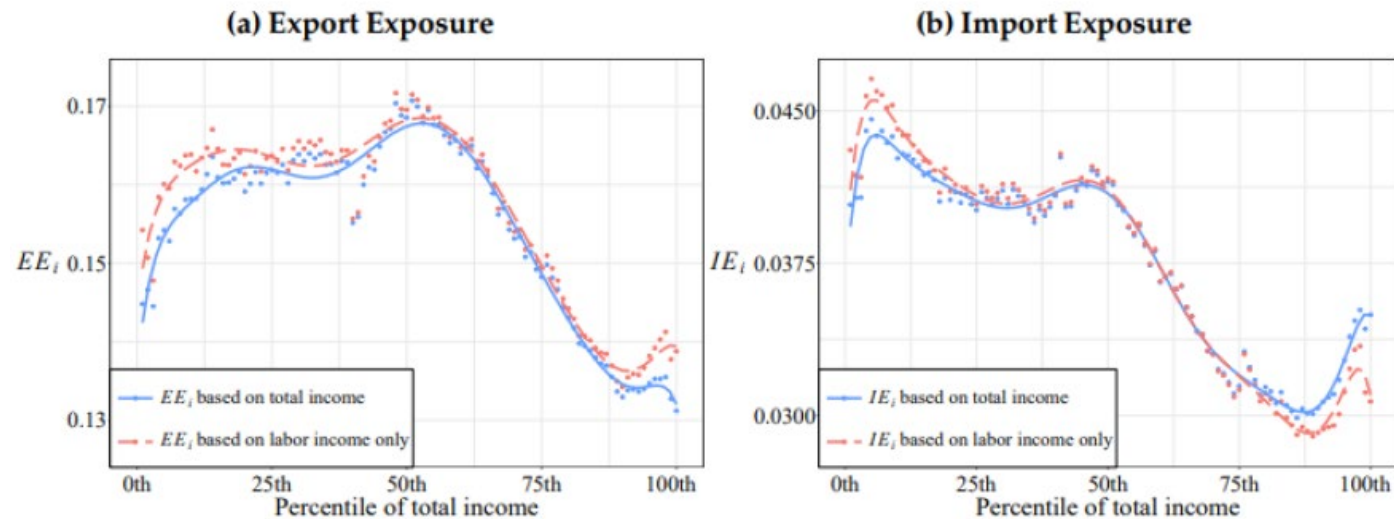
# Matching to Other Datasources

- Increasingly possible to match trade data at firm level to many other administrative datasets
  - Many papers now match trade flows to firm records (sales, capital, profits etc.), e.g. impacts of trade on productivity
  - Some match to social security records, e.g. impacts of trade on labor market outcomes
    - Of course, rich data doesn't solve endogeneity issues, often still require exogenous changes in trade barriers
  - Firm-to-firm data capture backward/forward propagation of trade shocks, e.g. impacts of trade shocks on network structure (e.g. work of Miyauchi and coauthors)

# Matching to Other Datasources

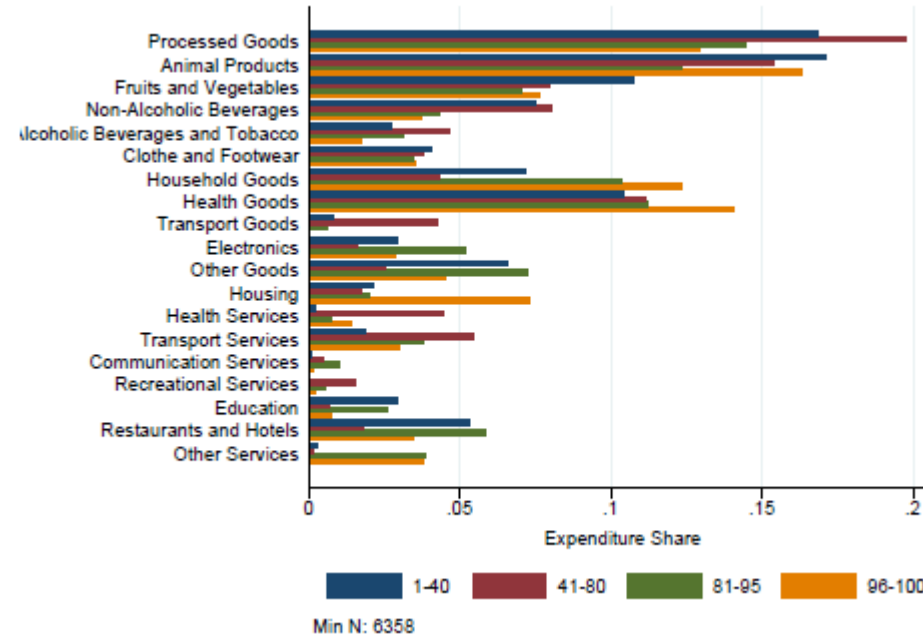
- Combining multiple administrative datasets, possible to capture individual exposure to trade
  - Adao Carillo Costinot Donaldson Pomeranz (2022) use Ecuadorian data to link export and import exposure (from customs) to firms through firm-to-firm network (from tax records) to employees (from social security data) and firm owners (from firm registry)

Figure 3: Distribution of Trade Exposure Across Individuals, 2012



# Matching to Other Datasources

- Combining multiple administrative datasets, possible to capture individual exposure to trade
  - Atkin Bernadac Donaldson Garg Huneeus (2022) use Chile data to go one step further: also link consumers to firms using tax-id'd VAT records for good purchases at final stores



# Matching to Other Datasources

- Combining multiple administrative datasets, possible to capture individual exposure to trade
  - Atkin Bernadac Donaldson Garg Huneus (2022) use Chile data to go one step further: also link consumers to firms using tax-id'd VAT records for good purchases at final stores
  - Other attempts to link consumers to trade flows
    - Consumer characteristics in Nielsen matched by name to firms in US Census data (Borusyak and Jaravel 2021)
    - Merge label information with Nielsen homescan (Auer, Burstein, Lein, Vogel 2023, Jaccard 2023)
    - Direct imports (e.g. from Amazon) into Costa Rica (Argente, Mendez, Van Patten)



# Global Value Chains and Trade Within the Firm

- Value chains and the fragmentation of production central to the globalization of production
  - Trade flows are classified into `products', the amount of value added that is crossing the border, not amount of value added while inside the exporting country
    - Whether these are intermediate products or not is surprisingly hard to judge based on their descriptions (e..g. look for `part' or `component' in the description)
    - And of course, many goods can be both intermediates and final goods
- Several papers use IO tables to extract value added (Hummels, Ishii and Yi, 2001; Johnson and Noguera 2012, Daudin, Riart, and Schweisguth (2011), Johnson and Noguera (2014), Koopman, Wang, and Wei (2014), Timmer (2014), Los, Timmer, and de Vries (2016), De Gortari 2020)

# Global Value Chains and Trade Within the Firm

- Johnson Noguera (2012), “Adjusted” allows China/Mex processing trade to have different IO table

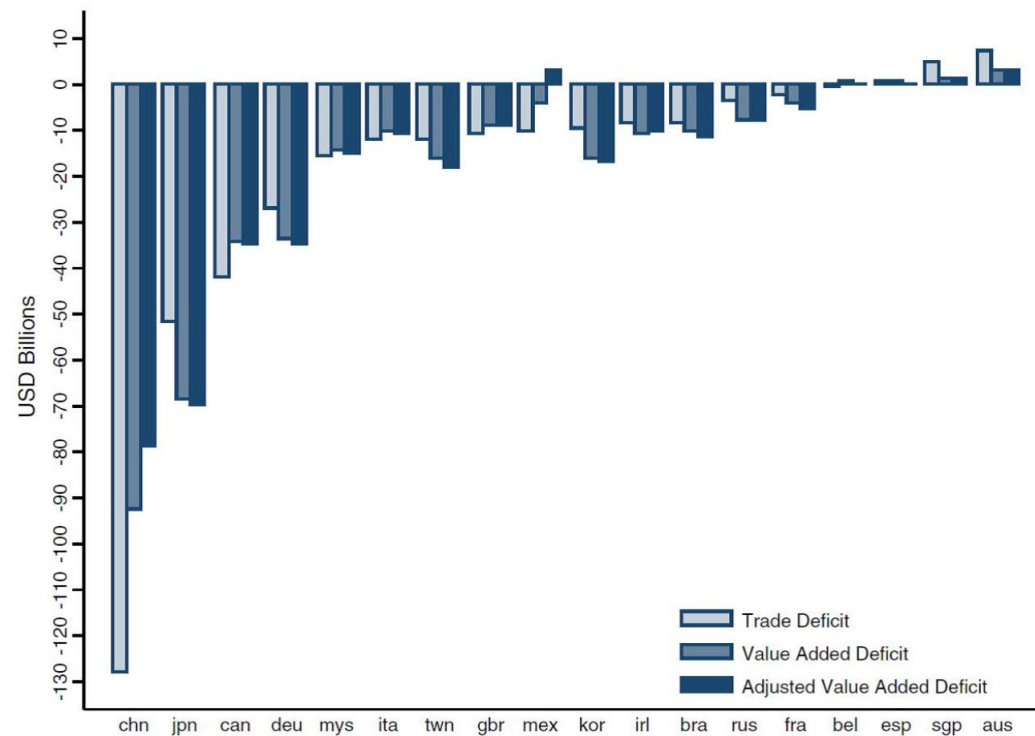


Fig. 4. Bilateral trade and value added balances for the United States, by partner (2004).

# Global Value Chains and Trade Within the Firm

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  - WIOD, EORA etc allow you to use these estimates off the shelf
  - But lots of assumptions:
    - IO tables (separating imports and domestic goods) not available for many countries/years
    - Even when IO table is available, quite aggregated, still require strong assumptions
    - E.g. imported inputs going into Chinese phones destined for Germany and Gabon come from same origins
  - Kee and Tang (2016) for China and for Bems and Kikkawa (2021) for Belgium use firm-level customs data and firm-to-firm VAT records, suggests IO methods overstate trade in VA
    - But note still have to deal with multiproduct firms—what comes into firm may not be evenly distributed across product lines
      - de Loecker, Goldberg, Khandelwal, Pavcnik (2016) is perhaps state of art in splitting using single product firms
    - Proprietary within-firm production data solves this but won't have data for other links in supply chain

# Trade Barriers

- Trade Barriers
  - Anything that impedes trade between origin and destination
    - Tariffs and non-tariff barriers obviously central to literature
    - Transportation costs.
    - Administrative hurdles.
    - Corruption (e.g. bribes).
    - Contractual and financing frictions
    - Information frictions

# Trade Barriers

- Why do we want to measure these barriers?
  - Of interest in their own right (e.g. analyzing determinants of trade policy)
  - For hard-to-measure barriers, how big they are is important
    - Input into models, explain features of data (Obstfeld and Rogoff (2000) for how trade costs explain 'six big puzzles' of international macro)
  - Relative size and effect of reducing friction important for policymaking (e.g. impact of railroads in Donaldson 2018)
  - Can provide exogenous shocks to trade (e.g. changes in effective distance due to arrival of air transport in Feyrer 2019)
  - For calculating trade elasticities

# Tariff Barriers

- Less explored than you might think
  - No harmonized product classifications below HS6, with tariffs set at more disaggregated levels (e.g. HS8 or HS10)
  - Bound rate may differ from applied rate
  - Different rates applied to different countries (those in WTO, those in free trade agreements, those facing antidumping duties etc.)
- Several international databases
  - WITS, WTO current tariff bindings dataset
- Also may be firm-specific exemptions
  - Free trade zones (Grant 2020), Trump exemptions (Kim and Yoon 2021)
- Trade reforms provide (exogenous?) variation in tariffs (e.g. Topalova 2007, Kovak 2013)

# Tariff Barriers

- But beware

**Feodora Teti** @FeodoraTeti · Oct 2, 2023

What is going on? WITS uses the concept of effectively applied tariffs (AHS), defined as the lowest available tariff. If a preferential tariff exists, it will be used, otherwise the AHS equals the MFN.

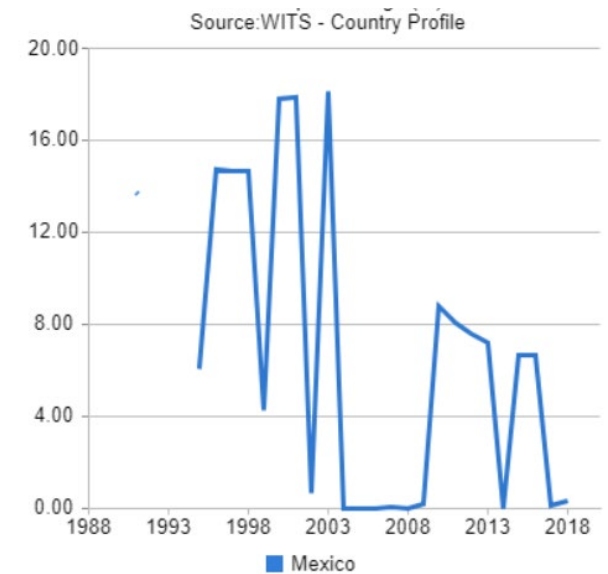
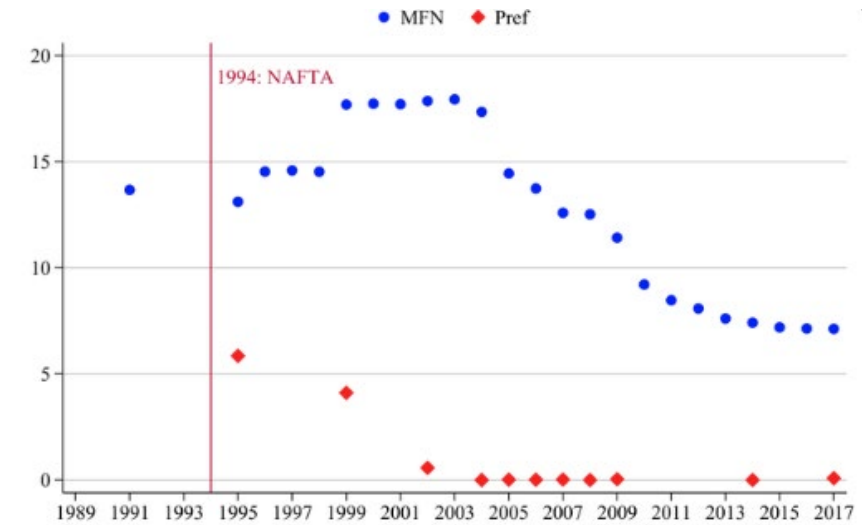
1 6 1K

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**Feodora Teti** @FeodoraTeti · Oct 2, 2023

But here is the catch: when a preferential tariff isn't reported for a year, it's assumed there is no trade agreement. The result? False interpolation

1 9 1K



# Tariff Barriers

- Data on tariff setting:
  - GATT Bargaining Records (Bagwell, Staiger, Yurukoglu 2020)
  - Lobbying expenditures and topics in LobbyView (Kim 2018), Blanga-Gubbay, Conconi, Parenti (2023)



# Non Tariff Measures (NTMs)

- Non tariff barriers may be even more important than tariff barriers (Ederington and Ruta 2016), at least in the pre-Trump era
- Datasets
  - UNCTAD TRAINS database
  - Kee, Nicita and Olarreaga (2009), Kee and Nicita (2018) transform into ad valorem equivalents and made available on World Bank Website

The screenshot shows the UNCTAD TRAINS database search interface. On the left, there is a 'Detailed search' panel with several filters: 'NTMs from which country(ies)?' set to 'All countries', 'Which market(s) are affected?' set to 'All countries', 'Products affected' set to 'Live horses, asses, mules and hi...', 'Type(s) of NTMs' set to 'All NTM Types', and 'Exclude measures affecting ALL products' checked. There are also date and import/export filters. On the right, a table displays search results with columns for 'Country imposing NTM(s)', 'Partner affected by NTM(s)', 'HS code', 'Regulation title', and 'Implementati...'. The table lists various countries like Algeria, Bahamas, Bahrain, Bangladesh, and Jordan with their respective NTMs. A pagination bar at the bottom indicates '20 items per page'.

Country imposing NTM(s)	Partner affected by NTM(s)	HS code	Regulation title	Implementati...
Algeria	World	0101(Animal of hunting ca...	Executive Decree No. 11-19...	May 1, 2011
Algeria	World	0101(Animal of hunting ca...	Executive Decree No. 11-19...	May 1, 2011
Bahamas	World	0101,0102,0103,0104,0105,0...	Animal Contagious Disea...	Aug 1, 1966
Bahamas	World	0101,0102,0103,0104,0105,0...	Animal Contagious Disea...	Aug 1, 1966
Bahrain	Jordan	0101	Order of the Minister of M...	Jun 1, 2011
Bahrain	Albania,Algeria,Argentina,A...	0101	Order of the Minister of Tr...	Mar 1, 1987
Bahrain	Albania,Algeria,Argentina,A...	0101	Order of the Minister of Tr...	Mar 1, 1987
Bahrain	World	0101	Order of the Minister of Tr...	Mar 1, 1987
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Rules, 20...	Oct 1, 2008
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Rules, 20...	Oct 1, 2008
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Rules, 20...	Oct 1, 2008
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Rules, 20...	Oct 1, 2008
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Rules, 20...	Oct 1, 2008
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Act, 2005	Feb 1, 2005
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Act, 2005	Feb 1, 2005
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal and Animal Produ...	Feb 1, 2005
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Act, 2005	Feb 1, 2005
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal and Animal Produ...	Feb 1, 2005
Bangladesh	World	0101,0102,0103,0104,0105,0...	Animal Disease Act, 2005	Feb 1, 2005

# Specific NTBs

- Databases of state interventions that affect trade in goods and services
  - Global Trade Alert E.g. Juhasz, Lane, Oehlsen, Perez (2023)

GLOBAL TRADE ALERT

GLOBAL DYNAMICS DIGITAL POLICY COUNTRIES SECTORS & PRODUCTS LATEST STATE ACTS REPORTS DATA & METHODS ABOUT

INDEPENDENT  
COMPREHENSIVE  
ACCESSIBLE  
TRANSPARENT  
TIMELY

## INDEPENDENT MONITORING OF POLICIES THAT AFFECT WORLD COMMERCE

Global Trade Alert provides timely information on state interventions taken since November 2008 that are likely to affect foreign commerce. It includes state interventions affecting trade in goods and services, foreign investment and labour force migration.

Tailor your search ⓘ

Implementing Jurisdictions ⓘ 1 Selected ×  
Belgium × Choose additional

Affected Jurisdictions ⓘ 1 Selected ×  
Albania × Choose additional

Keep implementing jurisdictions ⓘ

Keep affected jurisdictions ⓘ

GTA Evaluations ⓘ 2 Selected ×  
Amber × Liberalising ×  
Choose additional

Affected Flow ⓘ 2 Selected ×  
Outward subsidy × Inward ×  
Choose additional

Intervention Types ⓘ 2 Selected ×  
Competitive devaluation ×  
Consumption subsidy ×  
Choose additional

MAST Chapters ⓘ 1 Selected ×  
B: Technical barriers to trade ×  
Choose additional

Keep policy instruments ⓘ

Keep MAST chapters ⓘ

Implementation Levels ⓘ 1 Selected ×  
Subnational × Choose additional

Restrict Eligible Firms ⓘ 3 Selected ×  
state trading enterprise ×  
SMEs × processing trade ×  
Choose additional

Keep implementation levels ⓘ

Keep eligible firms ⓘ

Threads ⓘ 1 Selected ×  
Recent G7 interventions affecting the BRICS ×  
Choose additional

Keep Thread ⓘ

Reporting Lag ⓘ  
Select date... ⓘ

Affected Products ⓘ  
Codes Groups

Affected Products

01 Live animals ⓘ  
02 Meat and edible meat offal ⓘ  
0201 Meat of bovine animals, fresh or chilled. ⓘ  
020110 Carcasses and halfcarcasses ⓘ  
020120 Other cuts with bone in ⓘ

Paste codes as csv... ⓘ

Keep selected products ⓘ

Affected Sectors ⓘ

Affected Sectors

48 Medical appliances, precision and optical instruments, watches and cloc... ⓘ  
49 Transport equipment ⓘ  
53 Constructions ⓘ  
54 Construction services ⓘ  
61 Wholesale trade services ⓘ

Paste codes as csv... ⓘ

Keep selected sectors ⓘ

Announcement Period ⓘ  
Start date... ⓘ to End date... ⓘ

Implementation Period ⓘ  
Start date... ⓘ to End date... ⓘ

Keep interventions without implementation date ⓘ

Revocation Period ⓘ  
Start date... ⓘ to End date... ⓘ

Keep interventions without revocation date ⓘ

# Specific NTBs

- WTO physiosanitary database

SPS&TBT Platform Home Search Facts & figures Resources

International Trade Centre UNITED NATIONS WORLD TRADE ORGANIZATION

TRACK AND MANAGE INFORMATION ON PRODUCT REQUIREMENTS

Search notifications Search trade concerns Receive alerts

Home / Search Trade concerns

Search trade concerns [Explore and visualize trade concerns →](#) [Export search results](#)

Free text search  Area (SPS, TBT)

Member(s) raising  Member(s) supporting  Member(s) responding

1995 2000 2005 2010 2015 2024

[Search more fields +](#) [Clear filter\(s\) ▾](#)

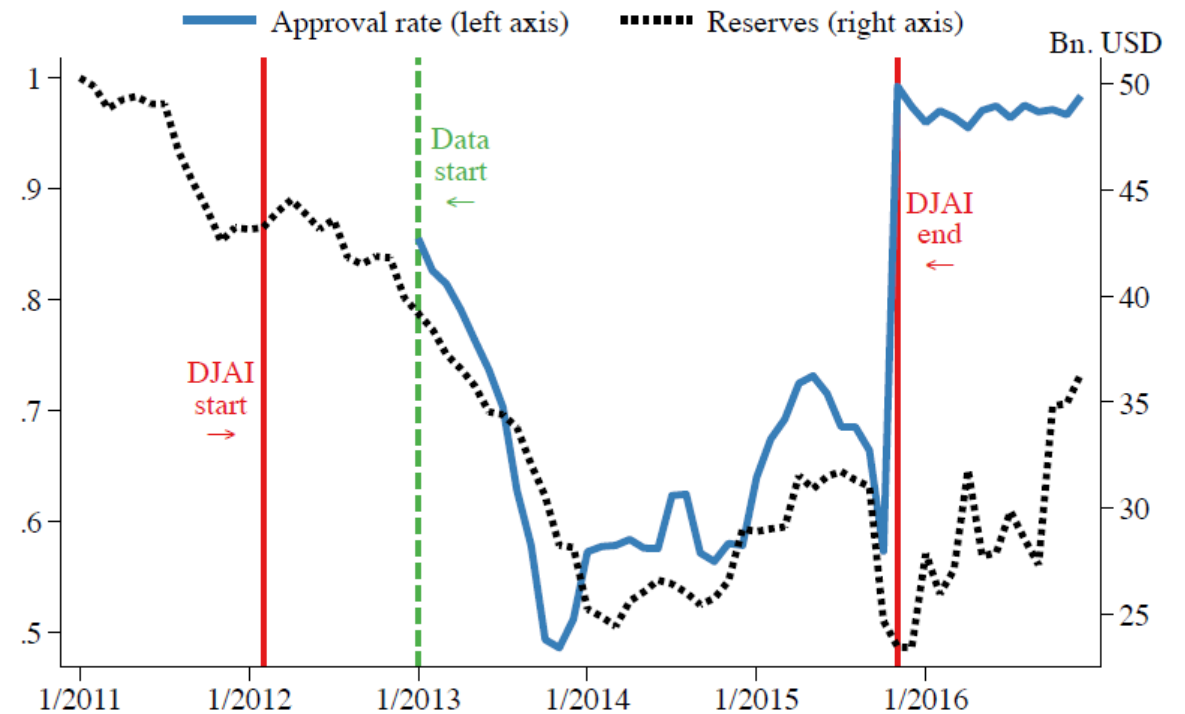
Area(s): TBT:SPS

Showing 1 - 20 of 1407 1 2 ... 71 < >

Area	Title	Member(s) raising	Member(s) supporting	Member(s) responding	Last time raised
> TBT	India - Cookware and Utensils (Quality Control) Order, 2023 (ID 830)	European Union		India	13/03/2024
> TBT	Australia - Proposed changes to the Industrial Chemicals General Rules and Categorisation Guidelines (ID 829)	European Union		Australia	13/03/2024
> TBT	India - Furniture (Quality Control Order), 2023 (ID 828)	European Union		India	13/03/2024
> TBT	Indonesia - Mandatory application of SNI standards on 6 plastic products (ID 827)	India		Indonesia	13/03/2024
> TBT	Mexico - Preliminary draft Guidelines for the use of the Federal Telecommunications Institute (IFT) seal on type-approved products, equipment, devices or apparatus for telecommunications or broadcasting (ID 826)	United States		Mexico	13/03/2024

# Specific NTBs

- Non-automatic import licenses
  - Argentina required every import was authorized on case-by-case basis (with no formal rules or regulations)
  - Atkin, Blaum, Fajgelbaum, Ospital (2024) use data on shipment level requests and approvals to explore determinants of approval, market power at importer-product-origin



# Trade Costs

- Many attempts to measure other components of trade costs
- Anderson van Wincoop (2004) summarize these:
  - Transportation costs (directly measured)
    - Hummels (2007) survey on transportation
    - Limao and Venables (2008) on shipping
    - Shapiro (2008) from customs data
    - Road maps (e.g. new or improved segments in India in Allen Atkin 2022), ports (Feyrer 2009 on Suez Canal, Brancaccio Kalouptsi and Papageorgiou 2024)
  - Currency policies
  - Being a member of the WTO
  - Language barriers, colonial ties
  - Information barriers (Rauch Trindade 2002, Allen 2014)
  - Contracting costs and insecurity (Evans 2001, Anderson and Marcoulier 2002)
  - US CIA-sponsored coups (Easterly, Nunn and Sayananth 2010)
- Cover in more detail in my STEG Spatial Frictions: Applications to Development

# Djankov, Freund and Pham 2010

Time as trade cost from 'Doing business' style survey on freight forwarding firms around the world

## List of Procedures to Export from Burundi

- 1 Secure letter of credit
- 2 Obtain and load containers
- 3 Assemble and process export documents
- 4 Pre-shipment inspection and clearance
- 5 Prepare transit clearance
- 6 Inland transportation to port of departure
- 7 Arrange transport; waiting for pickup and loading
- 8 Wait at border crossing
- 9 Transportation from border to port
- 10 Terminal handling activities
- 11 Pay of export duties, taxes or tariffs
- 12 Waiting for loading container on vessel
- 13 Customs inspection and clearance
- 14 Technical control, health, quarantine
- 15 Pass customs inspection and clearance
- 16 Pass technical control, health, quarantine
- 17 Pass terminal clearance

TABLE 1.—DESCRIPTIVE STATISTICS BY GEOGRAPHIC REGION  
REQUIRED TIME FOR EXPORTS

	Mean	Standard Deviation	Minimum	Maximum
Africa and Middle East	41.83	20.41	10	116
COMESA	50.10	16.89	16	69
CEMAC	77.50	54.45	39	116
EAC	44.33	14.01	30	58
ECOWAS	41.90	16.43	21	71
Euro-Med	26.78	10.44	10	49
SADC	36.00	12.56	16	60
Asia	25.21	11.94	6	44
ASEAN 4	22.67	11.98	6	43
CER	10.00	2.83	8	12
SAFTA	32.83	7.47	24	44
Europe	22.29	17.95	5	93
CEFTA	22.14	3.24	19	27
CIS	46.43	24.67	29	93
EFTA	14.33	7.02	7	21
ELL FTA	14.33	9.71	6	25
European Union	13.00	8.35	5	29
Western Hemisphere	26.93	10.33	9	43
Andean Community	28.00	7.12	20	34
CACM	33.75	9.88	20	43
MERCOSUR	29.50	8.35	22	39
NAFTA	13.00	4.58	9	18
Total sample	30.40	19.13	5	116

Note: Seven countries belong to more than one regional agreement.

Source: Data on time delays were collected by the Doing Business team of the World Bank/IFC. They are available at [www.doingbusiness.org](http://www.doingbusiness.org).

## Sequeira 2016

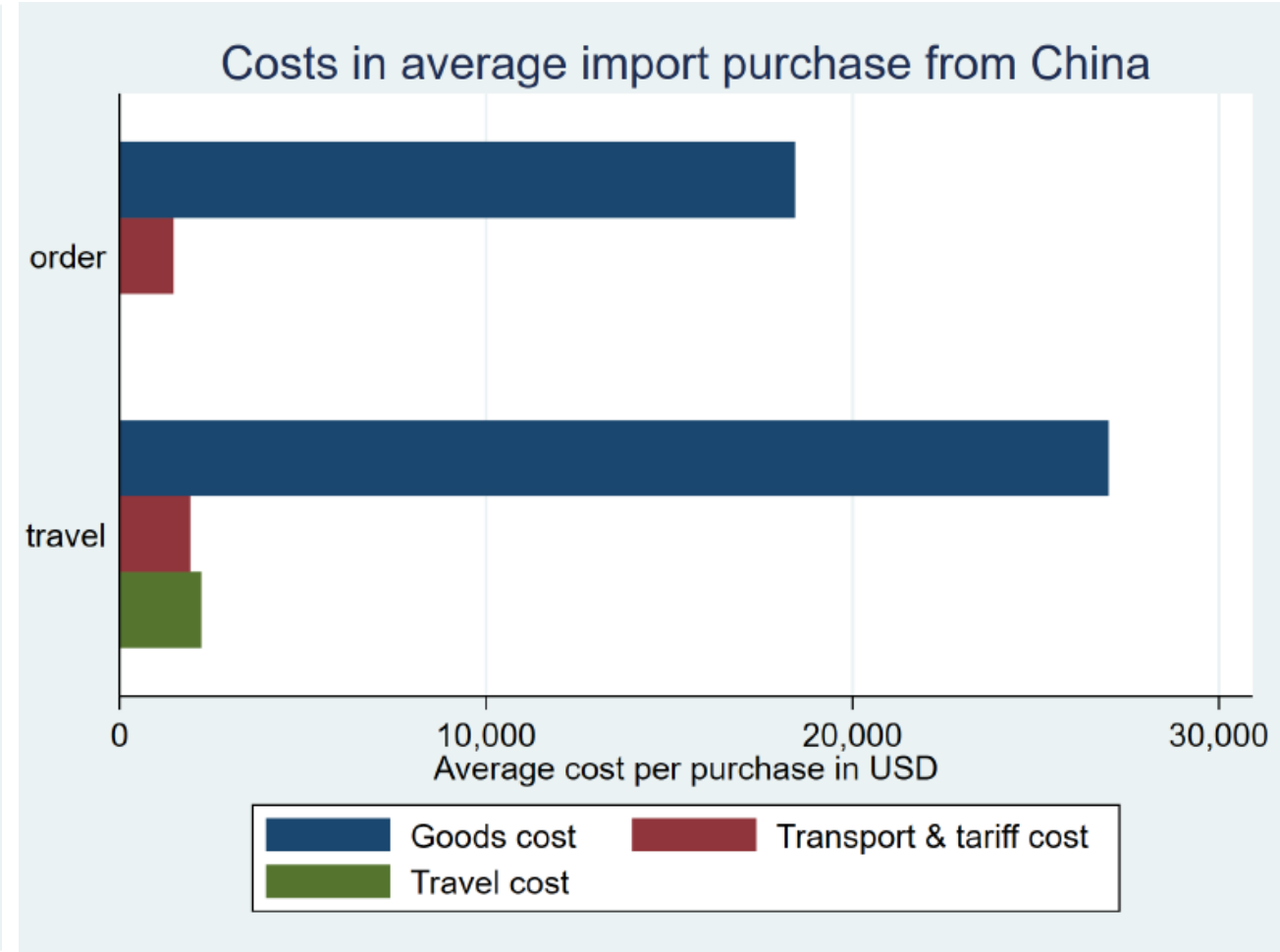
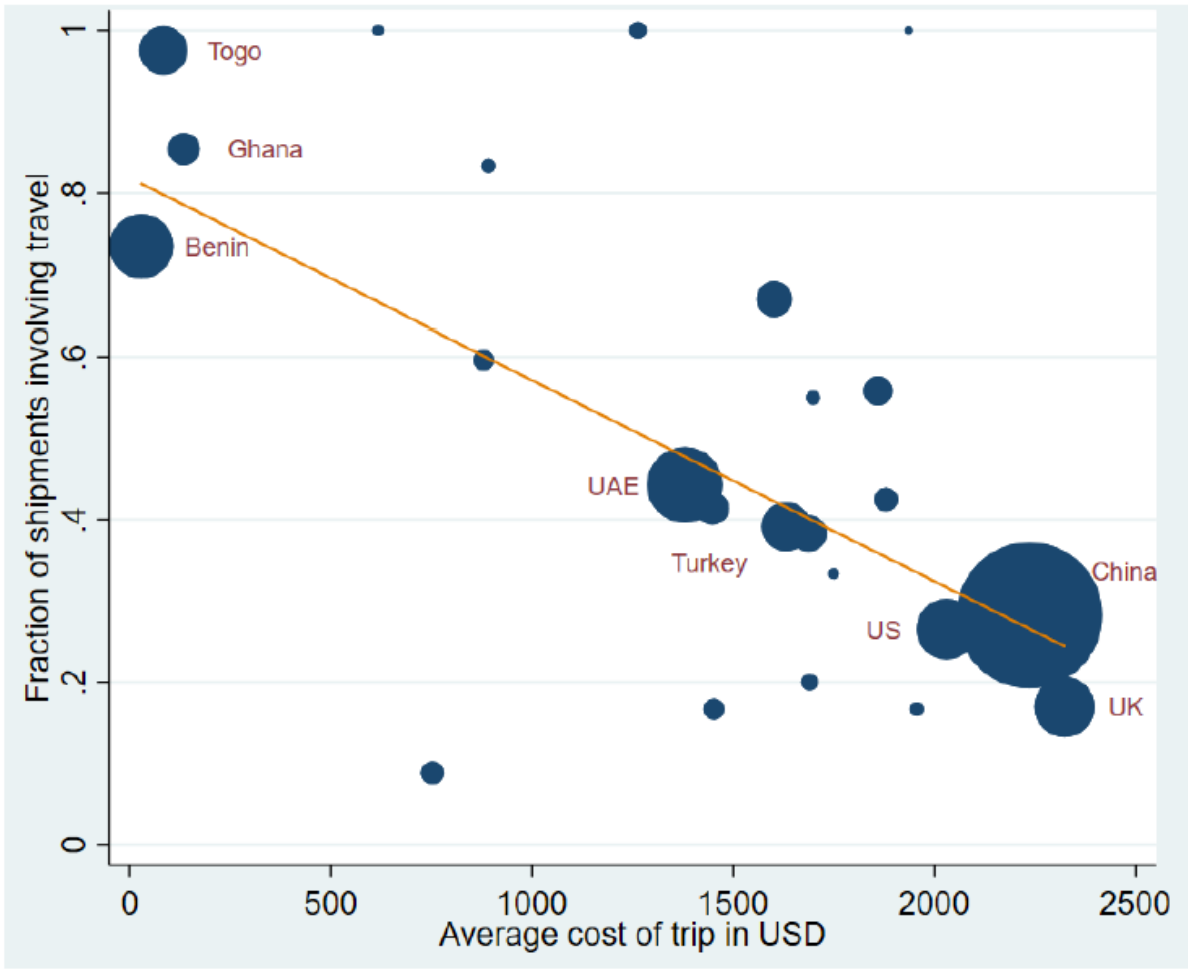
Mozambique: When tariffs are high, pay bribes to assign to different tariff code

Table 6: Summary Statistics: Bribe Payments

	Pre Tariff Change	Post Tariff Change	
	2007	2008	2011-2012
Probability of Paying a Bribe (%)	80	26	16
Avg Bribe Amount per Ton (Metical 2007, CPI Adjusted)	2,164 (7,800)	280 (963)	494 (2,746)
Primary Bribe Recipient	Customs (97%)	Customs (84%)	Customs (72%)
Primary Reason for Bribe Payment	Tariff Evasion (61%)	Congestion (59%)	Congestion (38%)
Ratio of Bribe Amount to Tariff Duties Saved [0-1]*	0.07 (0.13)	0.028 (0.09)	0.008 (0.02)
Avg clearing time for all shipments (days)	2.4 (1.4)	2.6 (1.4)	2.6 (3.6)
Avg clearing time with the payment of a bribe (days)	2.5 (1.5)	2.3 (1.2)	2.5 (3.1)
Avg clearing time without the payment of a bribe (days)	1.9 (0.74)	2.7 (1.38)	2.6 (3.7)
Avg clearing time with bribe payment for tariff evasion (days)	2.2 (1.7)	2.6 (1.4)	2.4 (1.8)

## Startz 2024

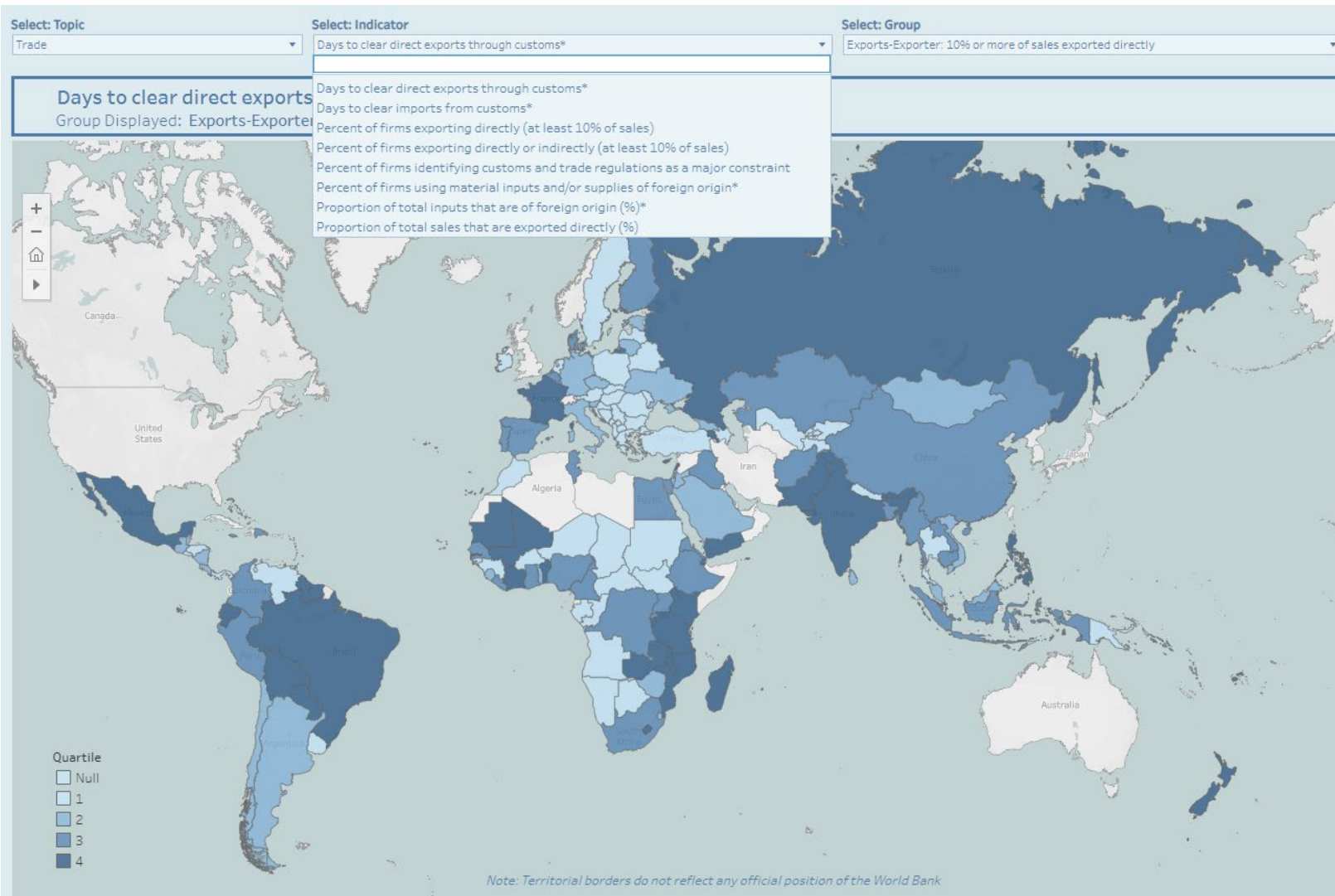
Nigerian Traders: Travel costs as large as transportation/tariff costs





# World Bank Enterprise Surveys

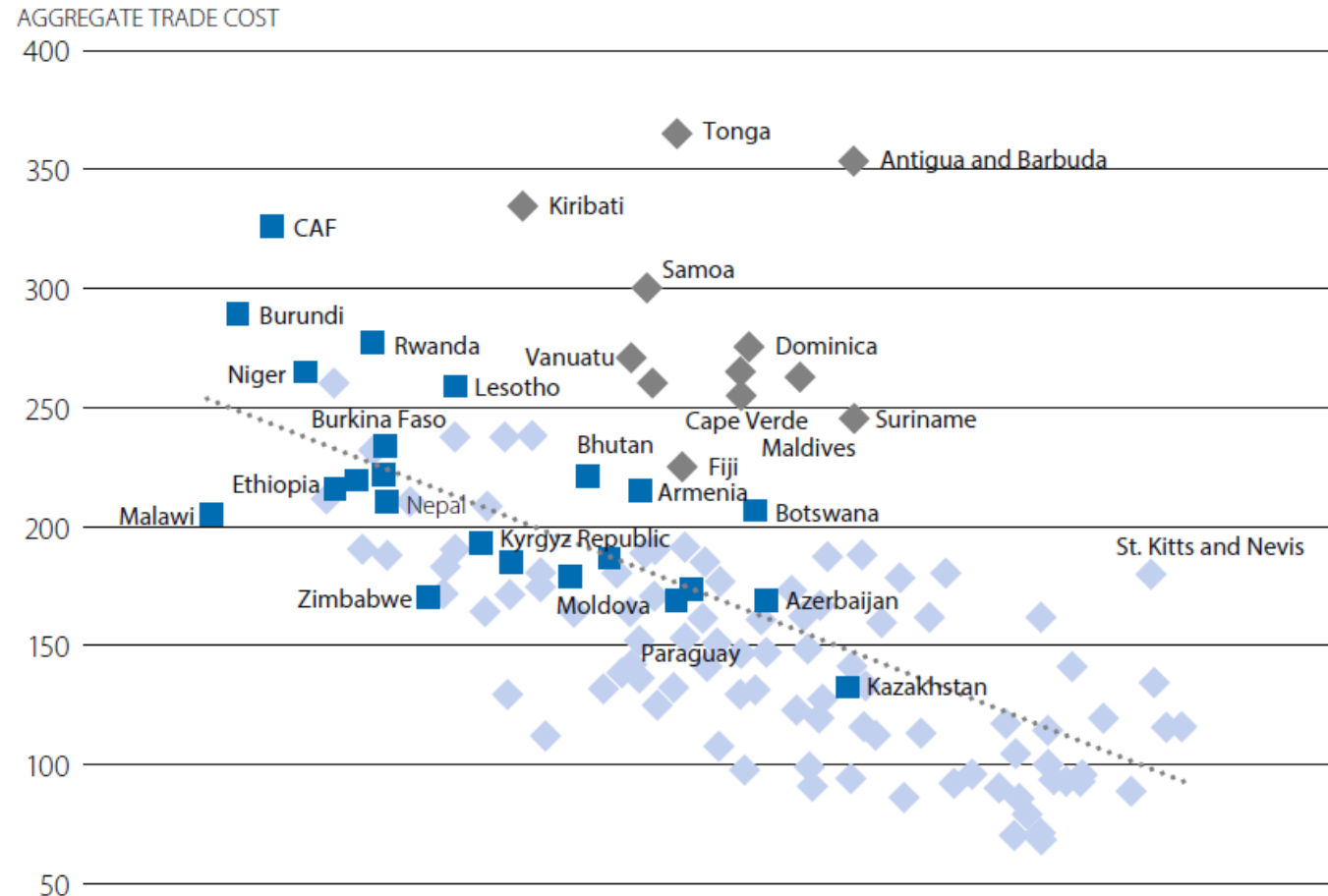
Cover 219,000 firms, 159 Economies



# Residual Approach to Measuring Trade Costs

Arvis et al. (2013), UNESCAP-World Bank Trade Costs database

Figure 2.15 GDP per capita and Aggregate Trade Costs

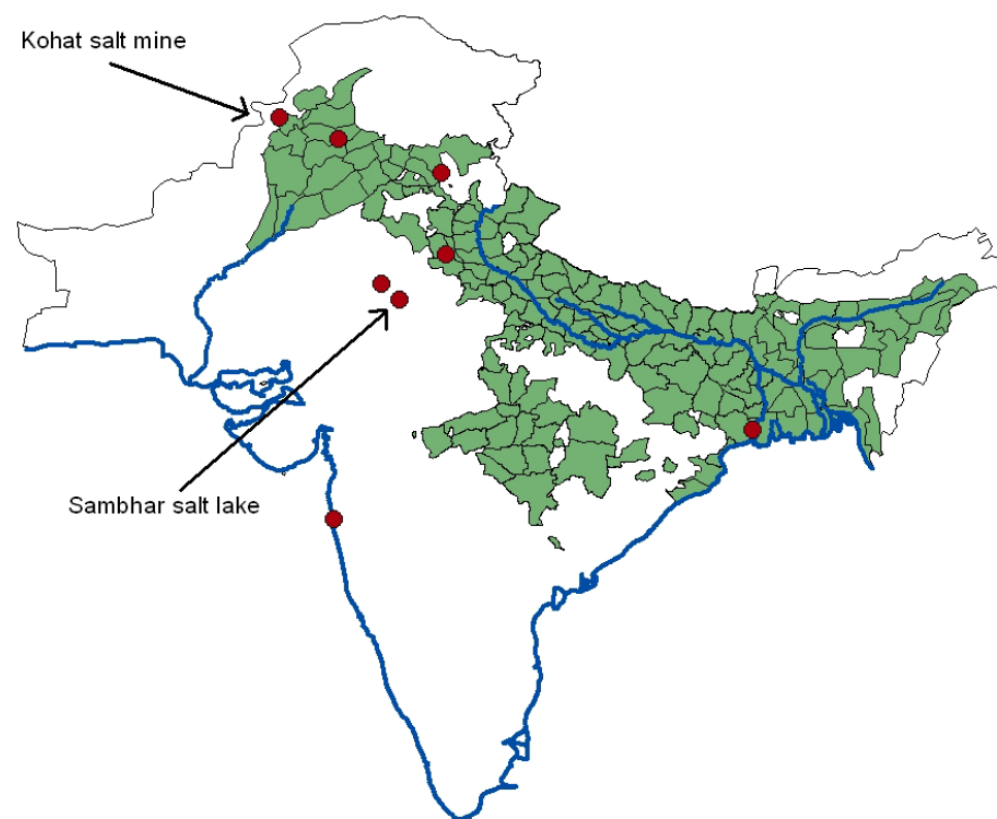


# Price Gaps Approach to Measuring Trade Costs

Donaldson 2018 exploits fact salt identified by origin

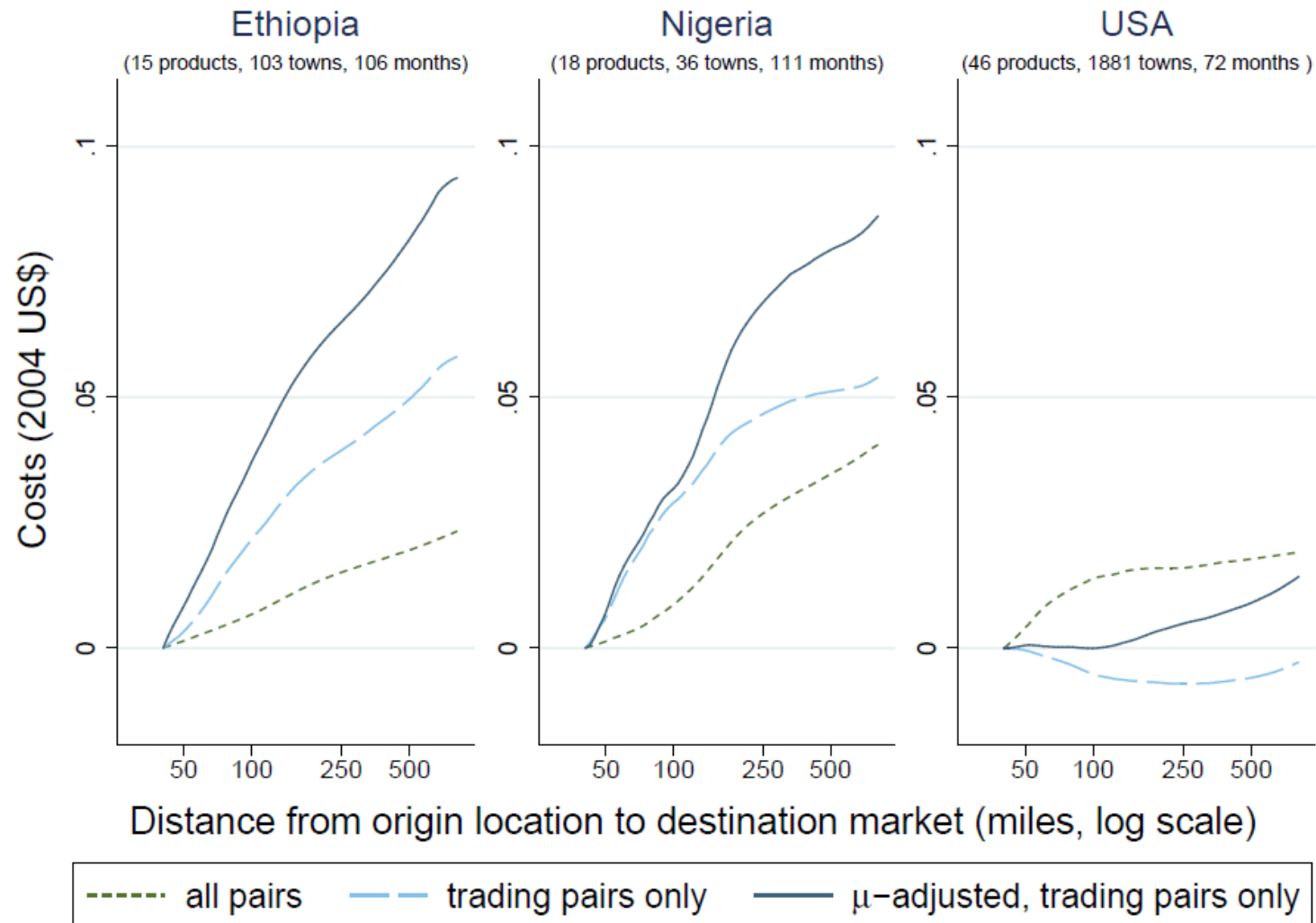
## 8 Salt Sources and 125 Sample Districts

Annual data, 1861-1930



# Price Gaps Approach to Measuring Trade Costs

Atkin Donaldson 2016 estimates marginal costs of distance in Nigeria/Ethiopia/US allowing for markups trading sector



# Thank you!

- Q&A