

From Final Goods to Inputs: the Cascade Effect of Preferential Rules of Origin

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Introduction

- Two important trends in international trade in recent decades:
 - Increasing **fragmentation of production** across countries. ▶ GVC
 - Proliferation of regional trade agreements. 90% are **Free Trade Agreements (FTAs)**. ▶ RTAs
- **FTAs** can **distort sourcing decisions** through two channels:
 - Imports from FTA partners face **lower import tariffs** than imports from third countries.
 - **Rules of origin (RoO)** define the conditions that a product must satisfy to obtain preferential tariff treatment. ▶ RoO
- In a large survey by the ITC (2015), RoO emerge as the **most problematic non-tariff measure** faced by manufacturing firms.

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- A final good producer located in the FTA faces two options:
 - **Complying with RoO**, in which case it enjoys preferential tariff treatment when exporting to the FTA partners, but must source certain inputs within the FTA
 - **Not complying with RoO**, in which case it can source its inputs from the most efficient producers around the world, but faces MFN tariffs when exporting to the FTA partners
- “**Cascade protectionism**”: even if inputs could be imported at low or zero tariffs from third countries, producers may source them within the FTA to avoid tariffs on their final goods.
- We construct a **new dataset on NAFTA RoO**: for every final good, we can trace all its inputs that are subject to RoO requirements; similarly, for every intermediate good, we can link it to all the final goods that impose RoO requirements on its sourcing. [▶ NAFTA RoO](#)

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Main results

- RoO on final goods **decrease imports of intermediate goods** from third countries (around 30 percentage points on average).
- The magnitude of the effect depends on
 - Extent of the **preference margin** on the final good
 - Importance of **NAFTA partners** in exports of the final good
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Related literature

- **Empirical studies** on the effects of FTAs abstract from RoO (e.g. Kehoe and Ruhl, 2013, Caliendo and Parro, 2015).
- **Theoretical studies** emphasize that RoO can distort trade in intermediaries (e.g. Grossman, 1981; Falvey and Reed, 2002).
- Direct evidence of this effect has been lacking, due to to the **legal complexity of the rules**, which makes measurement difficult.
- To measure the restrictiveness of RoO, previous studies (e.g., Cadot *et al*, 2006; Carrière and de Melo, 2006) use **synthetic indices** (e.g. Estevadeordal, 2000), which do not capture input-output linkages.
- This is the first paper to map the **input-output linkages** embedded in RoO and examine how they affect trade in intermediaries.

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Outline of the talk

1 Introduction

2 **Brief history of NAFTA**

3 Construction of the dataset on NAFTA RoO

4 Empirical methodology and results

5 Next steps and conclusions

Brief history of NAFTA

- 1988: Canada and US signed Canada-US Free Trade Agreement.
- 1990: Mexico approached the US to form a free trade agreement.
- 1991: Canada joined the negotiations, with the goal of creating one free trade area in North America.
- 1994: entry into force of NAFTA. Most tariffs were eliminated upon entry; the remaining ones were phased out in 10-15 years.

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Construction of dataset on NAFTA RoO

- Four steps to codify sourcing restrictions in NAFTA RoO:
 - 1 NAFTA RoO in Annex 401
 - 2 Coding Annex 401
 - 3 Mapping input-output linkages in NAFTA RoO
 - 4 Construction of RoO variables

Step 1: Annex 401

- **NAFTA RoO on textile fabric HS 6203.42 (men's or boys' trousers):**
“change[s] to subheadings 6203.41 through 6203.49 from any other chapter, except from headings 5106 through 5113, 5204 through 5212, 5307 through 5308 or 5310 through 5311, chapter 54, or heading 5508 through 5516, 5801 through 5802 or 6001 through 6002.”
- **Main rule** (“change[s] to subheadings 6203.41 through 6203.49 from any other chapter”): any input that falls within chapter 62 must be sourced within NAFTA for the textile fabric to obtain origin status.
- **Additional requirements** (from “except from headings 5106” to the end): any input falling into the listed tariff items must be sourced within NAFTA (e.g. 5106 through 5113: yarn or fabrics of wool).
- In some cases, alternative or complementary **value added rules** are used, but only in combination with change of classification rules.

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Figure 1: RoO on HS 6203.42

Output	Rule Type	Alternative VA	Complementary VA	Main Input Req	AdReq 1	AdReq 2	AdReq 3
62.03.41-62.03.49	CC	0	0	chapter 62	51.06-51.13	52.04-52.12	53.07-53.08
62.04.11-62.04.13	CC	0	0	chapter 62	51.06-51.13	52.04-52.12	53.07-53.08

Step 3: Mapping output-input linkages in NAFTA RoO

output	input
620342	550810
620342	550820
620342	550911
620342	550912
620342	550921
620342	550922
620342	550931
620342	550932
620342	550941
620342	550942
620342	550951
620342	550952
620342	550953
620342	550959
620342	550961
620342	550962
620342	550969
620342	550991
620342	550992

Step 4: Constructing RoO variables

input	output
550810	620342
550810	620343
550810	620349
550810	620411
550810	620412
550810	620413
550810	620419
550810	620421
550810	620422
550810	620423
550810	620429
550810	620431
550810	620432
550810	620433
550810	620439
550810	620441
550810	620442

- RoO_{ij} : dummy equal to 1 is RoO on final good i restricts sourcing of j .

RoO variables

- Treatment variables RoO_{ij}^x , where
 - $x = 1$: all final goods i imposing sourcing restrictions on j
 - $x = 2$ excludes final goods i with zero preference margin
 - $x = 3$ further excludes final goods i with alternative VA rules

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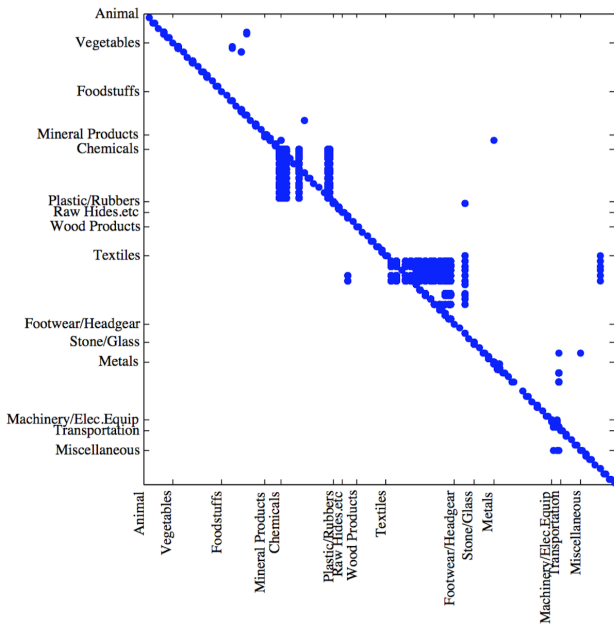
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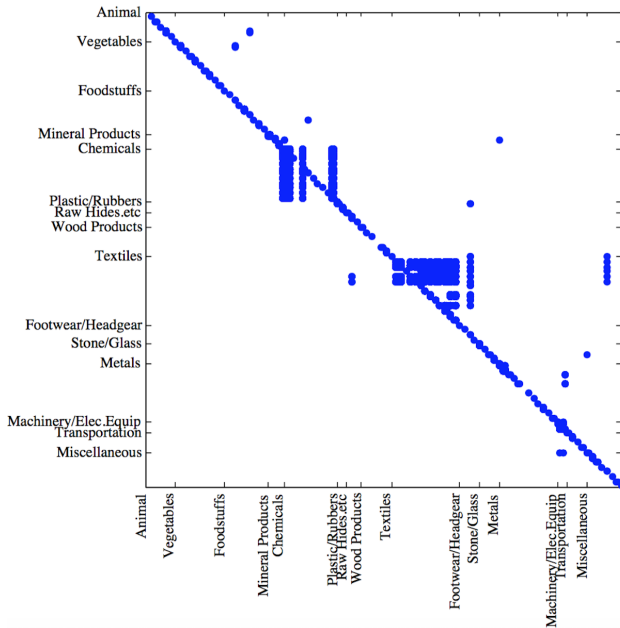
Table 1: RoO variables

HS	Panel (A): RoO _{ij} ¹			Panel (B): RoO _{ij} ²			Panel (C): RoO _{ij} ³		
	mean	min	max	mean	min	max	mean	min	max
01-05: Animal Products	57.39	0	87	18.01	0	24	17.86	0	24
06-15: Vegetables	39.77	0	57	23.43	0	43	22.80	0	41
16-24: Foodstuffs	23.60	0	44	18.49	0	37	17.95	0	36
25-27: Mineral Products	54.04	0	74	13.56	0	32	13.36	0	32
28-38: Chemicals	553.87	0	591	445.67	0	483	1.98	0	33
39-40: Plastics/Rubbers	21.03	1	61	12.89	0	36	10.69	0	28
41-43: Raw Hides, Skins, Leathers	21.39	9	34	18.82	4	30	17.44	4	27
44-49: Wood Products	38.52	0	93	27.89	0	77	19.11	0	58
50-63: Textiles	280.21	4	722	276.66	1	715	276.61	1	715
64-67: Footwear/Headgear	17.01	2	29	16.50	1	29	15.56	1	27
68-71: Stone/Glass	37.18	0	57	23.01	0	52	27.22	0	50
72-83: Metals	39.81	0	96	33.13	0	81	28.94	0	53
84-85: Machinery/Electrical	8.78	0	65	5.08	0	63	4.45	0	56
86-89: Transportation	9.54	1	22	8.30	0	20	6.81	0	20
90-97: Miscellaneous	19.94	0	44	15.59	0	41	13.96	0	41
All sector categories	148.15	0	722	124.24	0	715	55.98	0	715
Total number of RoO	746,383			625,957			281,976		

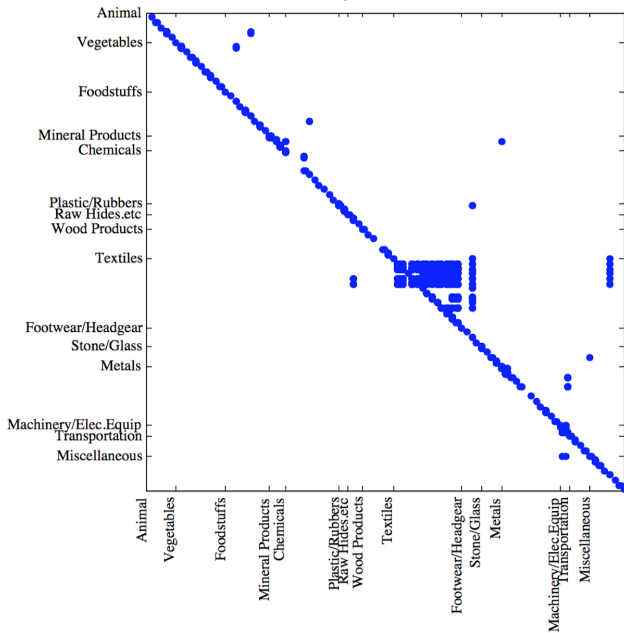
$$RoO_{ij}^1$$

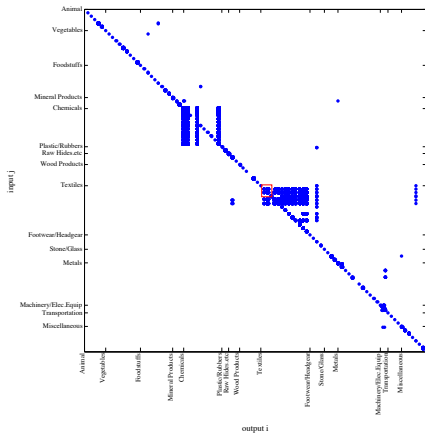


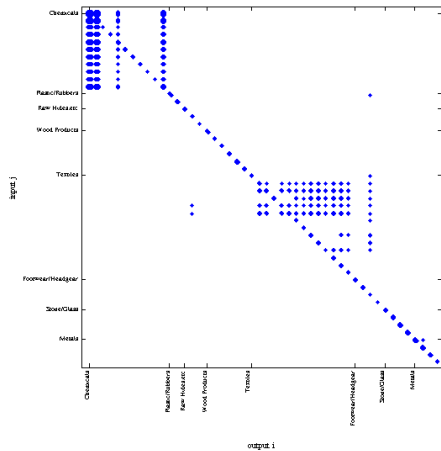
$$RoO_{ij}^2$$

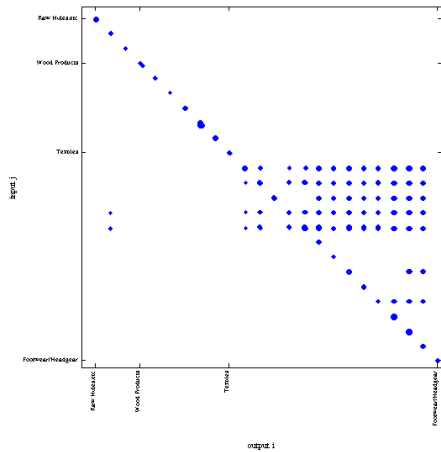


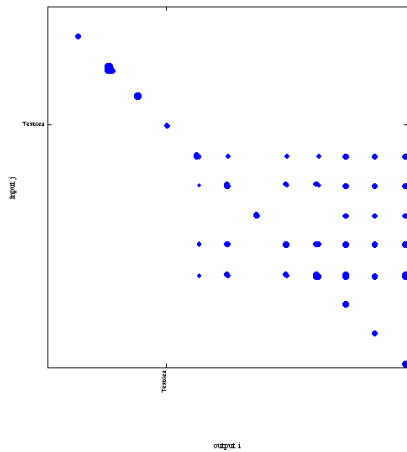
$$RoO_{ij}^3$$

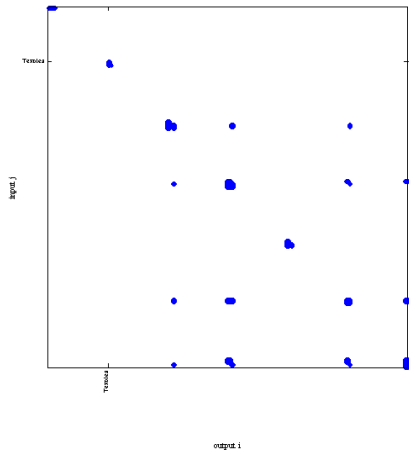


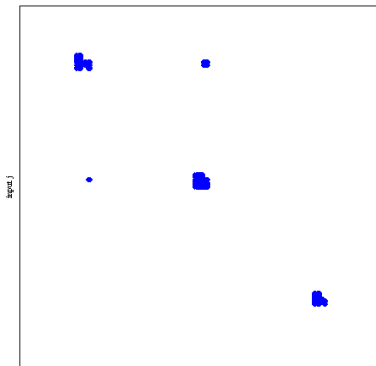




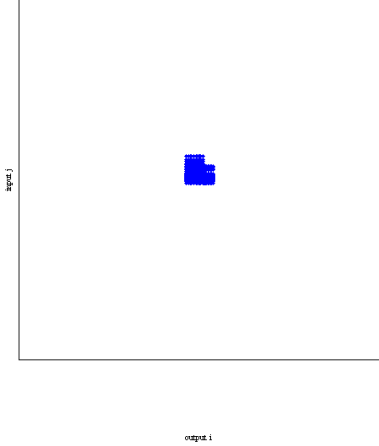


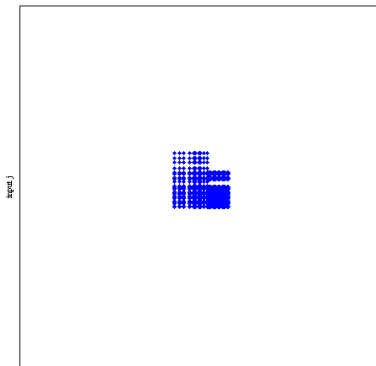






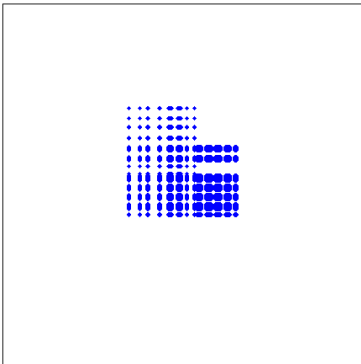
$output_i$





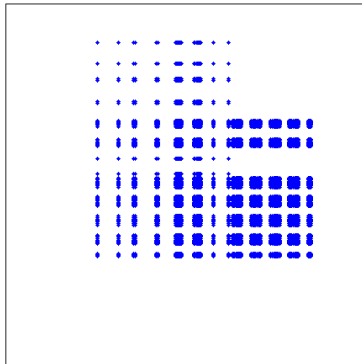
output i

input

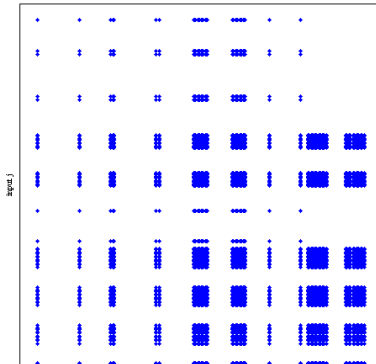


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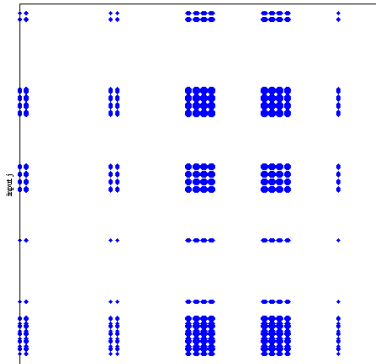
input :



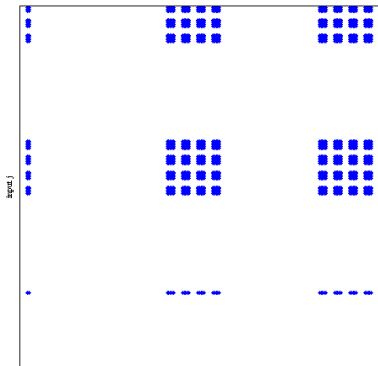
output :



output.i

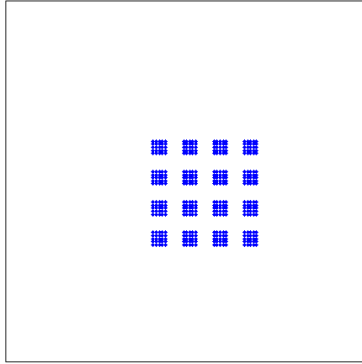


output i

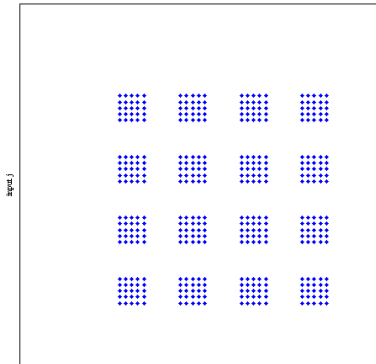


output i

input

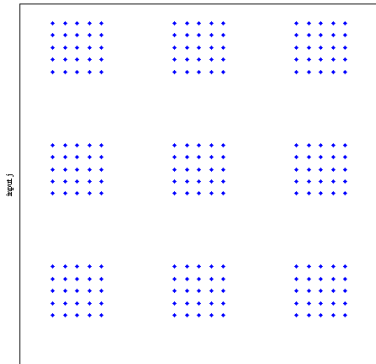


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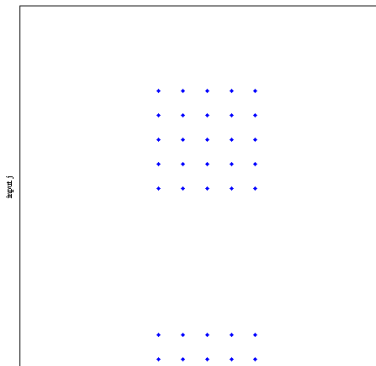


input

output i



output i



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RoO variables

- RoO_{ij} can be constructed for rules written at the chapter (2 digits), heading (4 digits) and sub-heading (6 digits) level.
- RoO should only have an impact if they apply to vertically-related goods, i.e. if j is actually an input in the production of i . [▶ Example](#)
- To verify this, we have converted I-O tables into HS classification. [▶ conversion](#)
- Percentage of RoO that apply to vertically-related goods:
 - Rules defined at 2 digits: around 50% of the cases
 - Rules defined at 4 digits: around 68% of the cases
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- In our benchmark regressions, we focus on RoO defined at 6 digits.

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Empirical methodology

- We study the impact of **RoO on final goods** on **imports of intermediaries** from non-NAFTA countries.
- To deal with endogeneity concerns, we focus on imports of **Mexico**.
 - ▶ Drafting of NAFTA RoO
- **Difference-in-differences approach**, allowing us to account for the role of time-invariant product characteristics:

$$\Delta Imports_{j,o} = \alpha + \beta_1 \Delta Preferential Tariff_{j,o} + \beta_2 RoO_{ij}^x + \delta_j + \delta_o + \epsilon_{j,o}$$

$\Delta Imports_{j,o}$: log change in Mexican imports of good j from third countries

$\Delta Preferential Tariff_{j,o}$: difference between the log change in the tariff applied by Mexico to imports of good j from non-NAFTA country o and from NAFTA partners

RoO_{ij}^x : log number of RoO on final goods i imposing sourcing restrictions on j

δ_j and δ_o : sector (at 3-digit) and origin fixed effects

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$\Delta Imports_{j,o}$: log change in Mexican imports of good j from third countries

$\Delta Preferential Tariff_{j,o}$: difference between the log change in the tariff applied by Mexico to imports of good j from non-NAFTA country o and from NAFTA partners

RoO_{ij}^x : log number of RoO on final goods i imposing sourcing restrictions on j

δ_j and δ_o : sector (at 3-digit) and origin fixed effects

Empirical methodology

- We study the impact of **RoO on final goods** on **imports of intermediaries** from non-NAFTA countries.
- To deal with endogeneity concerns, we focus on imports of **Mexico**.

► Drafting of NAFTA RoO

- **Difference-in-differences approach**, allowing us to account for the role of time-invariant product characteristics:

$$\Delta Imports_{j,o} = \alpha + \beta_1 \Delta Preferential Tariff_{j,o} + \beta_2 RoO_{ij}^x + \delta_j + \delta_o + \epsilon_{j,o}$$

$\Delta Imports_{j,o}$: log change in Mexican imports of good j from third countries

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RoO_{ij}^x : log number of RoO on final goods i imposing sourcing restrictions on j

δ_j and δ_o : sector (at 3-digit) and origin fixed effects

Table 3: Change in Mexican imports and NAFTA RoO: difference-in-differences

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	0.001 (0.086)	0.007 (0.085)				
$RoO_{i,j}^2$						
$RoO_{i,j}^3$						
$\Delta Preferential\ Tariff_{j,o}$		-0.574*** (0.074)				
Industry FE (HS3)	yes	yes				
Country of origin FE	yes	yes				
Observations	7,015	7,003				
R-squared	0.244	0.252				

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	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	0.001 (0.086)	0.007 (0.085)				
$RoO_{i,j}^2$			-0.280*** (0.082)	-0.186** (0.083)		
$RoO_{i,j}^3$						
$\Delta Preferential\ Tariff_{j,o}$		-0.574*** (0.074)		-0.557*** (0.075)		
Industry FE (HS3)	yes	yes	yes	yes		
Country of origin FE	yes	yes	yes	yes		
Observations	7,015	7,003	7,015	7,003		
R-squared	0.244	0.252	0.245	0.252		

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$RoO_{i,j}^2$			-0.280*** (0.082)	-0.186** (0.083)		
$RoO_{i,j}^3$					-0.306*** (0.084)	-0.207** (0.085)
$\Delta Preferential\ Tariff_{j,o}$		-0.574*** (0.074)		-0.557*** (0.075)		-0.555*** (0.075)
Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	7,015	7,003	7,015	7,003	7,015	7,003
R-squared	0.244	0.252	0.245	0.252	0.245	0.252

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Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	7,015	7,003	7,015	7,003	7,015	7,003
R-squared	0.244	0.252	0.245	0.252	0.245	0.252

- The effect is larger if we include only rules that are **relevant** (final good producers have something to gain by complying to them) and **strict** (origin can only be obtained if the restricted inputs are sourced within NAFTA).
- Based on column 6, RoO of final goods decreased imports of affected intermediate goods from non-NAFTA countries by 26 percentage points.

Table 3: Change in Mexican imports and NAFTA RoO: difference-in-differences

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	0.001 (0.086)	0.007 (0.085)				
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Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	7,015	7,003	7,015	7,003	7,015	7,003
R-squared	0.244	0.252	0.245	0.252	0.245	0.252

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- Based on column 6, RoO of final goods decreased imports of affected intermediate goods from non-NAFTA countries by 26 percentage points.

- The impact of RoO should be larger when Mexican final good producers have stronger **incentives to comply with the rules**.
- To verify this, we run the following regression:

$$\begin{aligned} \Delta Imports_{j,o} = & \alpha + \beta_1 RoO_{i,j}^3 \times Preference\ Margin_{i,NAFTA} + \beta_2 RoO_{i,j}^3 \times Exports_{i,NAFTA} \\ & + \beta_3 RoO_{i,j}^3 + \beta_4 Preference\ Margin_{i,NAFTA} + \beta_5 Exports_{i,NAFTA} \\ & + \beta_6 \Delta Preferential\ Tariff_{j,o} + \delta_j + \delta_o + \epsilon_{j,o}. \end{aligned}$$

- RoO should have a more detrimental impact
 - the higher is the **preference margin** on the final good ($\beta_1 < 0$)
 - when **NAFTA partners** are more important export markets for Mexican producers ($\beta_2 < 0$)

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Table 4: Change in Mexican imports and NAFTA RoO: difference-in-differences

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^3 \times Preference\ Margin_{i,NAFTA}$	-3.105 (1.978)	-3.780* (2.017)			-4.500** (2.094)	-5.615*** (2.167)
$RoO_{i,j}^3 \times Exports_{i,NAFTA}$			-0.010* (0.006)	-0.021*** (0.007)	-0.021** (0.010)	-0.023** (0.010)
$RoO_{i,j}^3$	3.672 (2.364)	4.301* (2.391)	-1.334*** (0.365)	-0.839** (0.386)	5.548** (2.592)	6.192** (2.607)
$Preference\ Margin_{i,NAFTA}$	0.543 (1.522)	1.327 (1.581)			1.711 (1.648)	2.925* (1.738)
$Exports_{i,NAFTA}$			0.056*** (0.021)	0.085*** (0.024)	0.062 (0.043)	0.079* (.045)
$\Delta Preference\ tariff_{j,o}$		-0.807** (0.383)		-0.700** (0.206)		-0.898** (0.397)
Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	348	346	600	598	348	346
R-squared	0.416	0.435	0.452	0.464	0.427	0.436

Robustness

Our results are robust to:

- Including all rules
 - Full sample 
 - Excluding rules with $dr_{i,j} = 0$ 
 - Weighting rules by $dr_{i,j}$ 
- Including extensive margin of import 
- Including countries that negotiated an FTA with Mexico 
- Instrumenting NAFTA rules with CUSFTA rules 






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Conclusions

- We have constructed a **unique dataset** mapping all input-output linkages embedded in NAFTA RoO.
- Our empirical analysis shows that **RoO decrease imports of intermediaries from third countries**, shifting protection from final goods to inputs (**“cascade effect”**).
- Input tariffs are low compared to tariffs on final goods (Miroudot *et al.*, 2009). Because of RoO, the **actual level of protection on intermediates** is much higher than what implied by input tariffs.

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Implications for multilateral trade rules

- Paragraph 5 (b) of Article XXIV of the GATT states that

The duties and other regulations of commerce maintained in each of the constituent territories and applicable at the formation of such free-trade area (...) shall not be higher or more restrictive than the corresponding duties and other regulations of commerce existing in the same constituent territories prior to the formation of the free trade area.

- Our findings show that RoO in FTAs may violate Article XXIV, by substantially raising the level of protection faced by non-members.

Avenue of future research

- What are the implications of our results for

- productivity and welfare?

Include preferential tariffs and RoO in the global sourcing model by Antras *et al.* (2014), using Mexican firm-level data.

- inward FDI?

Study whether NAFTA sourcing restrictions led to “RoO-jumping” FDI, using disaggregated data on Mexican inward FDI.

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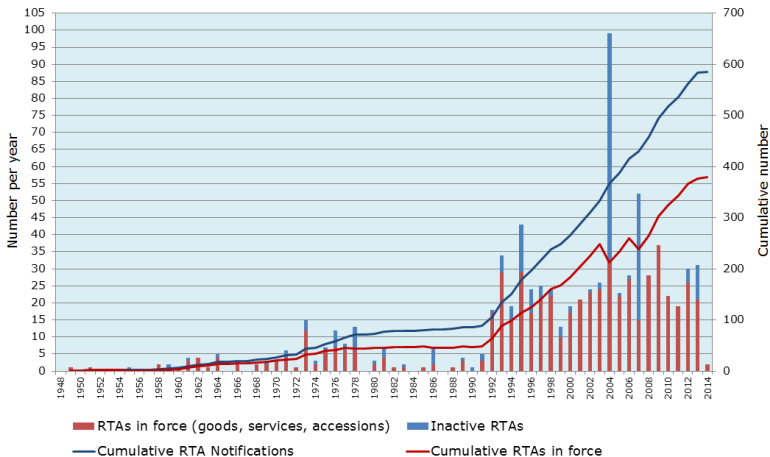
Study whether NAFTA sourcing restrictions led to “RoO-jumping” FDI, using disaggregated data on Mexican inward FDI.

Thank you!

Global fragmentation of production

- Improvements information and communication technology have led to the emergence of **global value chains**, with various production stages performed across different locations and firms increasingly sourcing their inputs from suppliers located in foreign markets.
- Surge in **trade in intermediate goods**, which now accounts for two thirds of international trade (Johnson and Noguera, 2012).

Figure 2: Number of RTA notifications and RTA in force (source, WTO Secretariat)



Rules of Origin

- FTAs use **rules of origin** to distinguish goods originating from member countries from those originating from third countries.
- Example from North American Free Trade Agreement (NAFTA): **watches** (HS 91.02) can only be traded duty free among members if **watch movements** (HS 91.08), **watch straps** (HS 91.13) **watch cases** (HS 91.12) used to produce them are sourced within NAFTA.

▶ Form

◀ Back

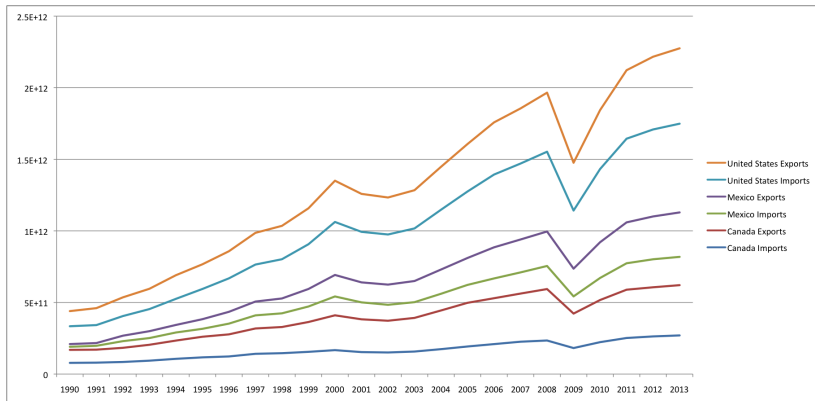
Do RoO apply to vertically related goods?

- There are 4,706 HS6 goods with input sourcing restrictions
- On average, around 75 potential inputs are restricted for each good
- Not all RoO apply to vertically-related goods
- For example, HS 6203.42 (men's or boys' trousers):
 - RoO restrict the sourcing of 140 inputs
 - Some of them are likely to be inputs
 - HS 530810 (Cair Yarn)
 - HS 520419 (Cotton Sewing Thread)
 - Reasonable doubts about others...
 - HS 620920 (Babies Garments and Clothing Accessories)
 - HS 590410 (Linoleum, floor coverings)

RoO in NAFTA

- NAFTA is the **world's largest FTA**, linking 450 million people producing \$17 trillion worth of goods and services.
- The focus on NAFTA is due to the **specific features of its RoO**:
 - Very disaggregated, with each product having specific rules
 - Mostly defined in terms of change of tariff classification
- These features allow us to **codify Annex 401** of NAFTA agreement in a **unique dataset** mapping all input-output linkages in its RoO.

Figure 3: NAFTA trade evolution 1993-2011 (Source: OECD)



Mexico has less diversified trade partners: in 2011, intra-NAFTA exports (imports) accounted for 81.72% (52.59%) of Mexican exports (imports); the corresponding statistics for the US were 32.32% and 25.83%

Drafting of NAFTA RoO

- The rules in Annex 401 were to a large extent **inherited from the RoO in Canada-US Free Trade Agreement** (correlation of 0.91).
- The **US had a predominant role** in drafting RoO
 - In some sectors, it pushed for **strict rules**, under the pressure of final good producers wanting to ensure that foreign assembly companies would not be eligible for favorable tariff treatment (e.g., automobile).
 - In other sectors, it pushed for **lenient rules**, under the pressure of firms highly dependent on multinational supply chains (e.g., IT).
- **Mexico tried without success to change some rules**, e.g. making RoO more lenient in automobile and textiles.

- Converting **Input-Output tables into HS classification**:
 - Match NAICS goods (I-O tables from BEA) with HS6 goods (RoO)
 - Each NAICS good may match into multiple HS6 goods.
 - Randomly pick one good to convert I-O table into HS6 classification.
 - Iterate procedure 1000 times.

Table 5: NAFTA RoO and change in Mexican imports from non-NAFTA countries, including all rules

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	-0.148*	-0.080				
	(0.089)	(0.088)				
$RoO_{i,j}^2$			-0.159**	-0.096		
			(0.069)	(0.069)		
$RoO_{i,j}^3$					-0.169***	-0.112*
					(0.063)	(0.063)
$\Delta Preferential\ tariff_{j,o}$		-0.567***		-0.561***		-0.554***
		(0.075)		(0.075)		(0.075)
Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	7,015	7,003	7,015	7,003	7,015	7,003
R-squared	0.244	0.252	0.244	0.252	0.245	0.252

- Based on column 6, RoO of final goods decreased imports of affected intermediate goods from non-NAFTA countries by 32 percentage points.

Table 6: NAFTA RoO and change in Mexican imports from non-NAFTA countries, excluding rules with $dr_{i,j} = 0$

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	-0.058 (0.041)	-0.051 (0.041)				
$RoO_{i,j}^2$			-0.026 (0.038)	-0.018 (0.038)		
$RoO_{i,j}^3$					-0.082** (0.041)	-0.069* (0.041)
$\Delta Preferential\ tariff_{j,o}$		-0.572*** (0.074)		-0.573*** (0.074)		-0.569*** (0.074)
Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	7,015	7,003	7,015	7,003	7,015	7,003
R-squared	0.244	0.252	0.244	0.252	0.244	0.252

Table 7: NAFTA RoO and change in Mexican imports from non-NAFTA countries, weighting rules by $dr_{i,j}$

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	-0.102 (0.087)	-0.116 (0.088)				
$RoO_{i,j}^2$			-0.124 (0.090)	-0.130 (0.091)		
$RoO_{i,j}^3$					-0.328*** (0.123)	-0.317** (0.124)
$\Delta Preferential\ tariff_{j,o}$		-0.576*** (0.074)		-0.575*** (0.074)		-0.571*** (0.074)
Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	7,015	7,003	7,015	7,003	7,015	7,003
R-squared	0.244	0.252	0.244	0.252	0.245	0.253

Table A-3: NAFTA RoO and change in Mexican imports from non-NAFTA countries, including Zero Imports

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	0.003 (0.044)	0.005 (0.044)				
$RoO_{i,j}^2$			-0.141*** (0.044)	-0.085** (0.044)		
$RoO_{i,j}^3$					-0.156*** (0.045)	-0.096** (0.046)
$\Delta Preferential\ tariff_{j,o}$		-0.328*** (0.040)		-0.319*** (0.040)		-0.318*** (0.040)
Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	29,057	28,067	29,057	28,067	29,057	28,067
R-squared	0.208	0.217	0.208	0.217	0.208	0.217

Table A-4: NAFTA RoO and change in Mexican imports from non-NAFTA countries, including Mexico's FTA partners

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	-0.011 (0.045)	-0.011 (0.045)				
$RoO_{i,j}^2$			-0.106** (0.044)	-0.086* (0.044)		
$RoO_{i,j}^3$					-0.119*** (0.046)	-0.098** (0.046)
$\Delta Preferential\ tariff_{j,o}$		-0.155*** (0.042)		-0.149*** (0.042)		-0.148*** (0.042)
Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	17,547	17,531	17,547	17,531	17,547	17,535
R-squared	0.139	0.140	0.139	0.140	0.139	0.146

Table 8: NAFTA RoO and change in Mexican imports from non-NAFTA countries, instrumenting NAFTA rules with CUSFTA rules

	(1)	(2)	(3)	(4)	(5)	(6)
$RoO_{i,j}^1$	-0.093 (0.138)	-0.098 (0.135)				
$RoO_{i,j}^2$			-0.270*** (0.081)	-0.167** (0.081)		
$RoO_{i,j}^3$					-0.298*** (0.074)	-0.199** (0.074)
$\Delta Preferential\ Tariff_{j,o}$		-0.566*** (0.075)		-0.552*** (0.075)		-0.544*** (0.074)
Industry FE (HS3)	yes	yes	yes	yes	yes	yes
Country of origin FE	yes	yes	yes	yes	yes	yes
Observations	7,015	7,003	7,015	7,003	7,015	7,003
R-squared	0.245	0.252	0.245	0.252	0.245	0.252