

# Crony Globalization: Evidence from a Natural Experiment

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(Smith 1776, Kant 1795, Lipset 1959, Acemoglu and Robinson 2006, many more!)

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  - “Real” macroeconomic effects (Tang & Wei 2009)

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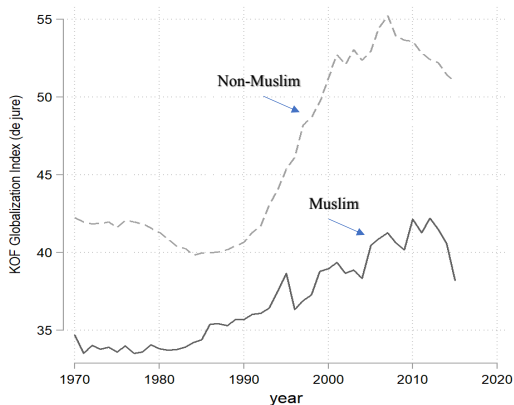
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- Distortions may undermine liberalization, in LDCs (Atkin and Khandewal 2021, Arezki et al 2021)
- This paper: Politics influences distortions
  - Argument: regime survival  $\Rightarrow$  partial liberalization
  - Evidence: Natural experiment using WTO’s creation

# Main result: Globalization deficit

- Test: globalization deficit in Muslim (nondemocratic) societies
  - Globalization is multifaceted: need composite measure



# Contributions

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- CPE: Pervasive underdevelopment in Muslim countries (Kuran 2018)
  - Existing explanations: oil, geography, history, religion/culture, geopolitics
  - This paper: systematic evidence of cronyism in *international* economic policies (country studies, e.g., Fisman 2001, Khawja and Mian 2005, Cammett 2007)



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- Political economy of dictatorship (e.g., Wintrobe 1998, Acemoglu and Robinson 2006, Svobik 2012)
- Reforms via international organizations (e.g., Pevehouse 2005, Lui and Ornelas 2014, Baccini 2019)

# Argument

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- 1 Survival hinges on elite cohesion
- 2 Protect economic interests of elites (generate “rents”)
  - Direct transfers
  - Partial liberalization in trade (e.g., Zissimos 2017, Gawande & Zissimos 2020)
  - Sign less “deep” PTAs (Liu & Ornelas 2014, Baccini & Chow 2018, Baccini 2019)
  - Restrict FDI, e.g., to decrease revolutionary threat (Gao, forthcoming)

# Empirical implications

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Application to Muslim countries

- Liberalization is partial/slower (relative to non-Muslim societies)
- Channels
  - 1 Prevalence of rentier political economies
  - 2 Sign fewer and shallower PTAs
  - 3 Protect politically connected firms (cronies)

# Overview of results

Natural experiment of WTO's creation (“globalization shock”)

(Similar approach in Tang & Wei 2009, Baccini, Impullitti & Malesky 2017)

- 1 Slower gains in *de jure* liberalization in Muslim countries (relative to non-Muslim)

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- 1 Slower gains in *de jure* liberalization in Muslim countries (relative to non-Muslim)
- 2 Channels: political institutions, rentier political economy, shallower trade agreements
- 3 Egypt and Tunisia: greater protection in politically connected sectors

# Research design

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- Challenge: non-random selection for reforms
- Natural experiment: WTO's creation in 1995
  - ① Timing is exogenous, common shock
  - ② Pressure to reform: beyond tariffs (Uruguay Round), rise of PTAs, BITs  
(Preeg 2012, Pevehouse & Mansfield 2013)
  - ③ Accession criteria: unrelated to religion

# Specification

$$G_{it} = \alpha + \beta(MUSLIM_i \times POSTWTO_t) + \gamma X_{it} + C_i + Y_t + \epsilon_{it}$$

- $G_{it}$ : Globalization in country  $i$  in year  $t$
- $MUSLIM_i$ : 1 if at least 75% of population identifies with Islam, 0 otherwise
- $POST_t$ : Dummy equal to 1 from 1995 onwards, 0 before
- Sample: non-oil producing developing countries, 1970-2015

If  $\beta < 0$ : Muslim countries experienced smaller gains in globalization after the WTO's creation, relative to non-Muslim countries

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Identification issues:

- 1 Parallel trends: Flexible specification, trend differences, group-specific time trends
- 2 Selection: fixed effects, confounders, test for unobservables (Altonji et al 2005)

# Measuring globalization

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- **Composite measure: KOF globalization index** (Dreher 2006)  
"Process of creating networks of connections among actors at intra- or multi-continental distances, mediated through a variety of flows including people, information and ideas, capital, and goods. Globalization is a process that erodes national boundaries, integrates national economies, cultures, and technologies, and governance, and produces complex relations of mutual independence"
  - Expansive country, temporal, and issue coverage
  - Most widely used measure in academic literature (Potrafke 2015)

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  - Expansive country, temporal, and issue coverage
  - Most widely used measure in academic literature (Potrafke 2015)
- Focus on *policy* dimension: *de jure* globalization (Gygli et al 2019)
- Information on
  - Trade: regulatory barriers, tariff rates, membership in trade agreements
  - Finance: openness of capital account, investment restrictions
- Range: [0, 100] , higher value = greater *de jure* globalization



## Hesitant *de jure* liberalization

- Globalization deficit (8 index points)  $\Rightarrow$  0.50% less per capita GDP annual growth (relative to non-Muslim countries)

	KOF Globalization Index, <i>de jure</i>				
	(1)	(2)	(3)	(4)	(5)
Muslim $\times$ Post WTO	-5.395** (2.394)	-8.762*** (2.349)	-8.981*** (2.369)	-7.716*** (2.344)	-7.359** (3.046)
<u>Controls</u>					
Agri. Trans. ( $\times$ Post)	No	Yes	Yes	Yes	Yes
Log GDP per capita	No	No	Yes	Yes	Yes
Log population	No	No	No	Yes	Yes
Conquest ( $\times$ Post)	No	No	No	No	Yes
$R^2$	0.827	0.837	0.845	0.849	0.849

Notes: Estimation via OLS. Robust standard errors, clustered by country reported in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively. The unit of observation is country-year. Across all specifications,  $N=2176$ . All specifications include country and year fixed effects. These coefficients and a constant are not reported. Years since Agricultural Transition and Arab Conquest vary across country but not year.

# Robustness

- Treatment: vary threshold for *Muslim*; (60%, 80%)
- Outliers: exclude countries (one-by-one)
- Competing explanations
  - Geography: distance from sea/river/port, landlock dummy, real and foreign market potential (Head & Mayer 2004, Redding & Venables 2004)
  - Political stability: civil unrest, war, cross-border conflict, external and civil war risk

# Evaluating channels

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Unpack “Muslim”:

- 1 Probe governance and policy characteristics that are associated with *Muslim<sub>i</sub>*;
- 2 Use form of mediation analysis: does  $Muslim_i \times POSTWTO_t$  attenuate?
- Robust channel: policy choices prior to WTO (e.g., trade restrictions, number and depth of FTAs)

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Within country analysis: Link cronyism to international economic policies

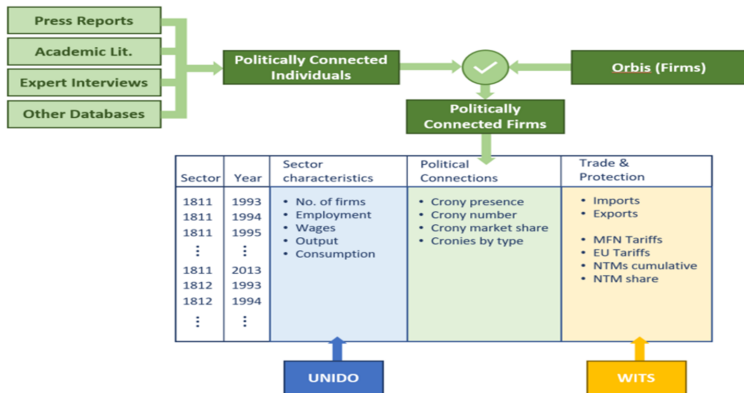
- 1 Identify politically connected firms in Egypt and Tunisia
- 2 Link firm products to sectors and then associated trade protection
- Sectors with greater crony penetration enjoy greater tariff protection

# Cronyism at the sector-level

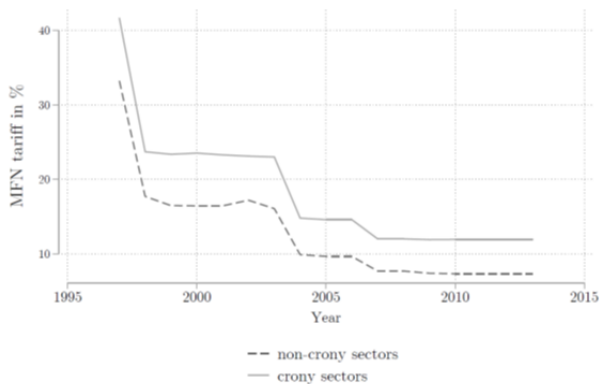
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# Cronyism at the sector-level

- Aim: Do politically connected firms (cronies) enjoy greater protection?
- Strategy: Identify cronies in Egypt and Tunisia and link to sector-level (4-digit SITC) trade data
  - ⇒ *Crony Activity*: Number of politically connected firms in a sector



# Tariff protection in Egypt: Crony versus non-crony firms



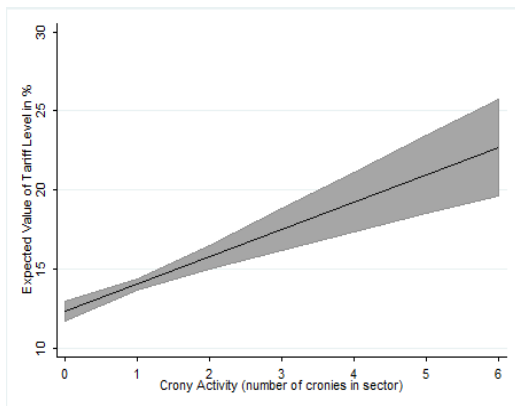


# Crony activity and tariffs in Egypt

	MFN tariff rate (%)					
	(1)	(2)	(3)	(4)	(5)	(6)
Crony Activity	2.867*** (0.223)	2.795*** (0.213)	3.092*** (0.222)	3.317*** (0.218)	2.519*** (0.217)	2.094*** (0.297)
<u>Controls</u>						
Establishments	Yes	Yes	Yes	Yes	Yes	Yes
Employees	Yes	Yes	Yes	Yes	Yes	Yes
Output to GDP	No	Yes	Yes	Yes	Yes	Yes
Value added to GDP	No	Yes	Yes	Yes	Yes	Yes
Output concentration	No	No	Yes	Yes	Yes	Yes
Imports	No	No	No	Yes	Yes	Yes
<u>Fixed effects</u>						
Period	No	No	No	No	Yes	Yes
Sector	No	No	No	No	No	Yes
Observations	22,767	21,912	21,912	21,355	21,355	21,355

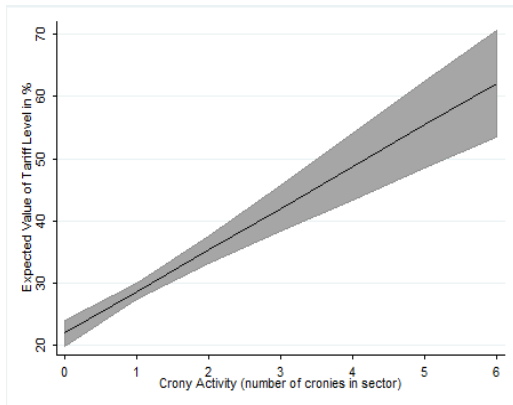
Notes: Estimation via Prais-Winston regressions with AR-1 error. Robust standard errors, clustered by sector in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively. The dependent variable is annual MFN tariff rates and the main variable of interest is the total number of cronies active in a sector (Crony Activity). Analysis is carried out at the sector-year level with 119 ISIC-4 manufacturing sub-sectors. Estimations are carried out on an unbalanced panel over the period, 2002-2010. The following controls are included: log of the total number of enterprises (Establishments), log of the total number of employees (Employees), the share of output and value-added to GDP, output per enterprise as a ratio of total output (Output concentration), and the log of total imports.

# Crony activity and expected tariffs in Egypt



Notes: Expected value tariffs across sectors with greater crony activity, controlling for size of establishment, number of employees, output to GDP, value added to GDP, output concentration, and value of sector imports (i.e., corresponding to column 6 in previous table).

# Crony activity and expected tariffs in Tunisia



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# Conclusion

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## Summary

- Politics of regime survival can affect economic distortions, lower welfare
- Hesitant approach to globalization in Muslim societies
- Due to: politics and policies that reinforce cronyism
- Globalization deficit may buttress democratic deficit in Muslim societies

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## Next steps

- Data on actual restrictions: ad valorem equivalent (AVE) tariffs, sector level FDI restrictions
- Data on sector level NTBs in Egypt and Tunisia
- Link globalization deficit to political survival

# Elite cohesion in dictatorships

- **Authoritarian survival: masses versus elites**  
(Wintrobe 1998, Bueno de Mesquita et al 2003, Svobik 2012)
  - Policies (agents): repression (military), targeted benefits (elite)
  
- **Hinder political transitions: Elite cohesion crucial**
  - Democratization: “soft-liners” join masses (O’Donnell & Schmitter 1986, Collier 1999)
  - Loyalty norm: defection to challenger (Bueno de Mesquita et al 2003)
  - Elite defection (coups): >66% of regime transitions (Svobik 2012)

# Strategies to maintain elite cohesion

- Direct transfers
- Partial liberalization (e.g., Zissimos 2017, Gawande & Zissimos 2020)
  - Impose: trade taxes (tariffs), NTBs, export subsidies, regulatory barriers, exchange rate controls, investment restrictions, etc.
- Preferential trade agreements (PTAs)
  - Destroy (future) protectionist rents (Liu & Ornelas 2014), additional commitments to reform (Baccini 2019)
    - ⇒ Sign PTAs with less “depth” (Baccini & Chow 2018)
- Restrict foreign direct investment (FDI)
  - FDI can raise labor income ⇒ increase revolutionary threat (Gao, forthcoming)



# Mapping cronies to sectoral trade data

- Step 1: Politically connected firm (Faccio 2006)
  - Definition: owner or top manager is a member of parliament, cabinet official (minister), head of state, or connected with regime insiders through marital ties and/or business ties
  - Conservative approach: Clear and documented link

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⇒ Ordinal variable, *Crony Activity*: number of politically connected firms in a sector

# Summary statistics

	Non-Muslim					Muslim				
	N	Mean	SD	Min	Max	N	Mean	SD	Min	Max
KOF de jure	1567	46.269	14.215	9.422	85.829	781	36.91	11.648	13.832	67.917
GDP per capita, log	1749	7.395	0.967	4.754	9.596	874	6.911	0.922	5.481	9.35
Population, log	2068	15.72	1.109	13.169	18.431	1120	15.954	1.473	11.334	19.057
Arab Conquest	2376	0.004	0.023	0	0.153	1180	0.496	0.441	0	1
Agricultural transition	2417	3.601	1.86	1	8	1251	5.86	2.813	2.9	10.5
FTA Depth Index	2417	1.482	0.798	0.327	5	1251	1.182	0.607	0.227	2.286
Deep FTAs, Average	2417	2.312	0.753	1	3.913	1251	1.628	0.489	1	2.5
Deep FTAs, Max No.	2417	4.594	1.664	2	7	1251	3.141	0.857	1	4
Distance from Coast	2376	266.757	348.036	12.252	1675.81	1251	360.473	375.613	26.24	1180.26
Foreign Aid (% of GDP)	1652	7.342	11.207	-0.643	147.059	885	8.033	8.378	0.003	57.828
Trade Restrictiveness Index, Overall	2204	0.167	0.078	0.031	0.401	1251	0.111	0.058	0.005	0.235
Trade Restrictiveness Index, Manufact.	2204	0.118	0.099	0.009	0.42	1251	0.089	0.069	0.002	0.257
Real Market Potential, RV (log)	2417	15.187	1.054	13.271	18.588	1251	14.845	1.153	13.179	17.282
Real Market Potential, HM (log)	2417	13.363	0.793	11.965	14.968	1251	13.365	0.889	12.185	15.169

# Sample

- Non-oil producing developing countries, 1970-2015
- Treatment:  $Muslim_i = 1$  if at least 75% of population identify with Islam  
Ahmed (2012, 2013), Campante & Yanagizawa-Drott (2015)
  - Verified *pre-treatment* balance between Muslim and non-Muslim countries

Muslim	Non-Muslim	
Afghanistan	Armenia	Malawi
Albania	Bolivia	Mongolia
Bangladesh	Botswana	Mozambique
Burkina Faso	Bulgaria	Nicaragua
Djibouti	Chile	Panama
Egypt	Cote d'Ivoire	Paraguay
Gambia	Dominican Republic	Philippines
Guinea	El Salvador	Poland
Jordan	Eritrea	Serbia & Montenegro
Lebanon	Ghana	South Africa
Mali	Guatemala	Sri Lanka
Morocco	Guinea-Bissau	Tanzania
Niger	Guyana	Togo
Pakistan	Haiti	Uganda
Senegal	Honduras	Ukraine
Sierra Leone	Hungary	Uruguay
Somalia	Jamaica	Zambia
Sudan	Kenya	Zimbabwe
Tunisia	Liberia	
Turkey	Madagascar	

# Treatment: $Muslim_i > 60\%$

	KOF Globalization Index, <i>de jure</i>				
	(1)	(2)	(3)	(4)	(5)
Muslim x Post WTO	-5.185** (2.427)	-8.735*** (2.363)	-8.952*** (2.384)	-7.756*** (2.346)	-7.653** (3.047)
<u>Controls:</u>					
Years since Agricultural Transition (x Post)	No	Yes	Yes	Yes	Yes
GDP per capita, log	No	No	Yes	Yes	Yes
Total population, log	No	No	No	Yes	Yes
Arab conquest (x Post)	No	No	No	No	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	2,148	2,148	2,148	2,148	2,148
R-squared	0.827	0.839	0.846	0.850	0.850

Notes: Estimation via OLS. Robust standard errors, clustered by country reported in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively. The unit of observation is country-year. Years since Agricultural Transition and Arab Conquest vary across country but not year.

# Treatment: $Muslim_i > 80\%$

	KOF Globalization Index, <i>de jure</i>				
	(1)	(2)	(3)	(4)	(5)
Muslim x Post WTO	-4.027 (2.409)	-7.814*** (2.450)	-8.153*** (2.459)	-6.792*** (2.462)	-5.840* (3.417)
<u>Controls:</u>					
Years since Agricultural Transition (x Post)	No	Yes	Yes	Yes	Yes
GDP per capita, log	No	No	Yes	Yes	Yes
Total population, log	No	No	No	Yes	Yes
Arab conquest (x Post)	No	No	No	No	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	2,056	2,056	2,056	2,056	2,056
R-squared	0.828	0.838	0.846	0.849	0.849

Notes: Estimation via OLS. Robust standard errors, clustered by country reported in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively. The unit of observation is country-year. Years since Agricultural Transition and Arab Conquest vary across country but not year.



# Outliers: Drop country in treatment group

Excluded country	Effect on Globalization index, de jure		Observations	R-squared
	Muslim x Post WTO			
	Coefficient	SE	(3)	(4)
	(1)	(2)		
Albania	-7.595**	(3.268)	2,140	0.850
Bangladesh	-7.357**	(3.366)	2,131	0.838
Burkina Faso	-5.774*	(2.921)	2,130	0.851
Egypt	-7.279**	(3.052)	2,130	0.850
Gambia	-9.351***	(2.656)	2,130	0.854
Guinea	-7.230**	(3.255)	2,146	0.844
Jordan	-6.762**	(3.040)	2,135	0.850
Lebanon	-7.653**	(3.047)	2,148	0.850
Mali	-7.311**	(3.062)	2,130	0.847
Morocco	-7.334**	(3.040)	2,130	0.849
Niger	-7.354**	(3.072)	2,130	0.846
Pakistan	-7.464**	(3.051)	2,130	0.848
Senegal	-8.249**	(3.236)	2,130	0.848
Sierra Leone	-7.342**	(3.491)	2,130	0.846
Sudan	-6.338**	(3.116)	2,130	0.854
Tunisia	-7.350**	(3.047)	2,130	0.847
Turkey	-7.335**	(3.041)	2,130	0.848

Notes: Estimation via OLS. Robust standard errors, clustered by country reported in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively. The unit of observation is country-year. Each row reports the coefficient on Muslim x Post WTO (on the KOF globalization index, de jure) in a sample that excludes observations from the indicated country in the "Excluded country." All specifications control for Years since Agricultural Transition x Post WTO, GDP per capita (log), total population (log), Arab conquest x Post WTO, country and year fixed effects. These coefficients and a constant are not reported.

# Geographic drivers of trade

	KOF Globalization Index, de jure							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Muslim x Post WTO	-7.555*** (1.949)	-8.145*** (1.940)	-7.188*** (2.247)	-7.908*** (2.197)	-7.167*** (2.331)	-7.311*** (2.583)	-6.898*** (2.349)	-6.640** (2.608)
<b>Controls: (x Post WTO)</b>								
Area (%) within 100km of sea or river	0.099*** (0.023)							
Pop. (%) within 100km of sea or river		0.097*** (0.028)						
Distance from coast or river			-0.006* (0.003)					
Landlock country				-5.166* (2.708)				
Log of real market potential (HM)					4.169*** (1.376)			
Log of foreign market potential (HM)						-0.997 (2.763)		
Log of real market potential (RV)							1.526 (0.983)	
Log of foreign market potential (RV)								-2.866 (2.840)
N	2,130	2,130	2,176	2,176	2,176	2,176	2,176	2,176
R <sup>2</sup>	0.861	0.861	0.854	0.854	0.857	0.849	0.851	0.850

Notes: Robust standard errors, clustered by country in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively. All specifications include baseline controls (years since agricultural transition x Post, log GDP per capita), country and year fixed effects. These coefficients and a constant are not reported.

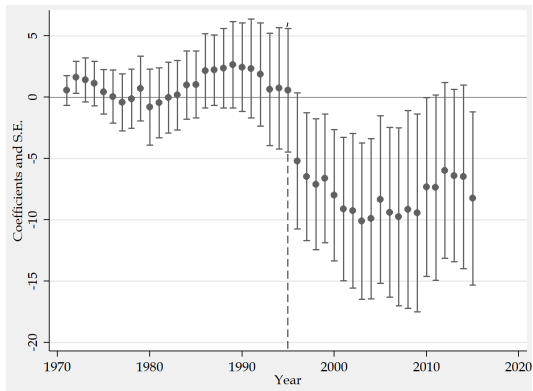
# Political (in)stability

	KOF Globalization Index, de jure						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Muslim x Post WTO	-7.716*** (2.344)	-7.484*** (2.300)	-7.597*** (2.385)	-7.183*** (2.205)	-7.588*** (2.406)	-6.794*** (2.474)	-5.227** (2.234)
<u>Controls:</u> (x Post WTO)							
Occurrences of civil unrest	No	Yes	No	No	No	No	No
Likelihood of civil unrest	No	No	Yes	No	No	No	No
War	No	No	No	Yes	No	No	No
Cross-border conflict, ICRG	No	No	No	No	Yes	No	No
External conflict risk, ICRG	No	No	No	No	No	Yes	No
Civil war risk, ICRG	No	No	No	No	No	No	Yes
Observations	2,176	2,176	2,176	2,176	2,176	2,176	2,176
R-squared	0.849	0.850	0.849	0.854	0.849	0.851	0.857

Notes: Robust standard errors, clustered by country in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively. All specifications include baseline controls (years since agricultural transition x Post, log GDP per capita), country and year fixed effects. These coefficients and a constant are not reported. Additional controls are the country average values of the variables in the pre-treatment period (i.e., prior to 1995) and their interaction with the post-WTO indicator variable.

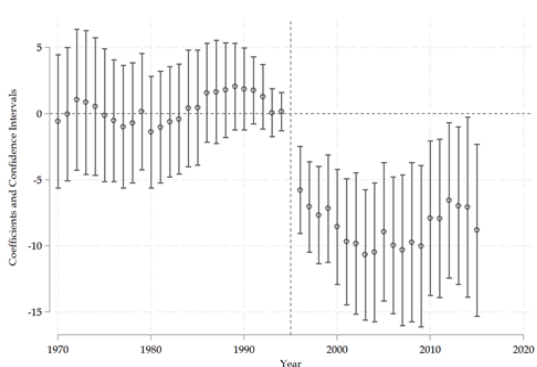
# Parallel trends: Flexible specification

$$G_{it} = \alpha + \beta_t(MUSLIM_i \times Y_t) + \gamma X_{it} + C_i + Y_t + \epsilon_{it}$$



- Additional tests: group specific trend, trend difference (Kahn-Lang and Lang 2020)

# Parallel trends: Trend difference (Kahn-Lang & Lang 2020)



# Selection effects

- Control for observable factors: e.g., history, market potential, geography, income, country and year fixed effects
- Accession to WTO: not based on religion
  - Average year of entry of Muslim countries is 1995: statistically indistinguishable from non-Muslim countries

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## Selection on unobservables

- Test: how strong must unobservables be to bias findings (Altonji et al 2005)
- Application: ratio ( $R$ ) =  $\hat{\beta}^F / (\hat{\beta}^R - \hat{\beta}^F)$  (Nunn and Wantchekon 2011)
- Interpretation: if  $R < 1$ , selection on unobservables is greater than selection on observables
- Finding:  $R$  varies from 4.53 to 5.30  $\Rightarrow$  Finding unlikely to be driven by unobservables

# Rentier political economy and institutions

- Recall: Baseline effect,  $Muslim \times Post\ WTO \approx 8$

	KOF Globalization Index, de jure							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Muslim $\times$ Post WTO					-7.098*** (2.325)	-6.519*** (2.284)	-7.264*** (2.097)	-8.376*** (2.395)
<u>Controls: (<math>\times</math> Post WTO)</u>								
Foreign Aid (% of GDP)	-0.285** (0.130)				-0.220* (0.128)			
Democracy (CGV)		12.050*** (4.419)				10.150** (4.080)		
Democracy (BMR)			8.300* (4.641)				7.411 (4.520)	
Checks & balances				0.011** (0.005)				0.017*** (0.006)
$R^2$	0.842	0.848	0.844	0.839	0.851	0.856	0.854	0.852

Notes: Robust standard errors, clustered by country in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively.  $N=2176$ . The control variables are the pre-period (i.e., before 1995) average value interacted with  $Post\ WTO_t$ . A higher value of Democracy (CGV), Democracy (BMR), and Checks & balances imply a higher quality of democratic governance. All specifications control for baseline controls, country and year fixed effects. These coefficients and a constant are not reported.



# Pre-WTO policy choices

	KOF Globalization Index, de jure				
	(1)	(2)	(3)	(4)	(5)
Muslim x Post WTO	-7.772*** (2.442)	-5.864*** (2.128)	-5.094* (2.649)	-4.902* (2.684)	-4.163 (2.631)
<u>Controls: (x Post WTO)</u>					
Trade Restrictiveness, manufacturing		58.70*** (13.07)			
Trade Restrictiveness, all sectors			42.07** (16.80)		
Number of deep FTAs maximum				2.660*** (0.800)	
Depth of FTAs, average					7.004*** (1.733)
$R^2$	0.850	0.868	0.857	0.863	0.866

Notes: Robust standard errors, clustered by country in parentheses. \*, \*\*, \*\*\* = significant at 10, 5, and 1 percent respectively. Across all specifications, the sample is held constant ( $N=2089$ ). All specification include country and year fixed effects and baseline controls. The controls are the pre-period (i.e., before 1995) average interacted with  $Post\ WTO_t$ . Overall Trade restrictiveness (manufacturing, all sectors), and the number and depth of FTAs are country averages prior to the WTO's creation.

# Depth of trade agreements (prior to WTO)

	Depth of Free Trade Agreements					
	(1)	(2)	(3)	(4)	(5)	(6)
Muslim	-0.607** (0.276)	-0.718** (0.312)	-0.714** (0.325)	-0.714** (0.313)	-0.714** (0.318)	-0.670** (0.291)
<u>Controls</u>						
Latitude	Yes	Yes	Yes	Yes	Yes	Yes
Longitude	Yes	Yes	Yes	Yes	Yes	Yes
Regional fixed effect	No	Yes	Yes	Yes	Yes	Yes
Foreign Aid (% of GDP)	No	No	Yes	Yes	Yes	Yes
Remittances (% of GDP)	No	No	Yes	Yes	Yes	Yes
Log of GDP per capita	No	No	No	Yes	Yes	Yes
Democracy indicator	No	No	No	No	Yes	Yes
Total trade (% of GDP)	No	No	No	No	No	Yes
Countries	56	56	56	56	56	56
R-squared	0.208	0.333	0.396	0.396	0.397	0.407

Notes: Robust standard errors in parentheses. \*\* = significant at 5 percent. Foreign aid (% GDP), remittances (% GDP), log GDP per capita, democracy indicator (CGV) and total trade (% GDP) are country averages. The dependent variable, "Depth of trade agreements", is drawn from Dur et al (2014). It is an index that ranges from 0 to 5, where a higher value corresponds to more depth (i.e., stricter PTA commitments).