

WHY CURRENCY UNDERVALUATION PROVOKES TRADE DISPUTES IN SOME SETTINGS BUT NOT OTHERS

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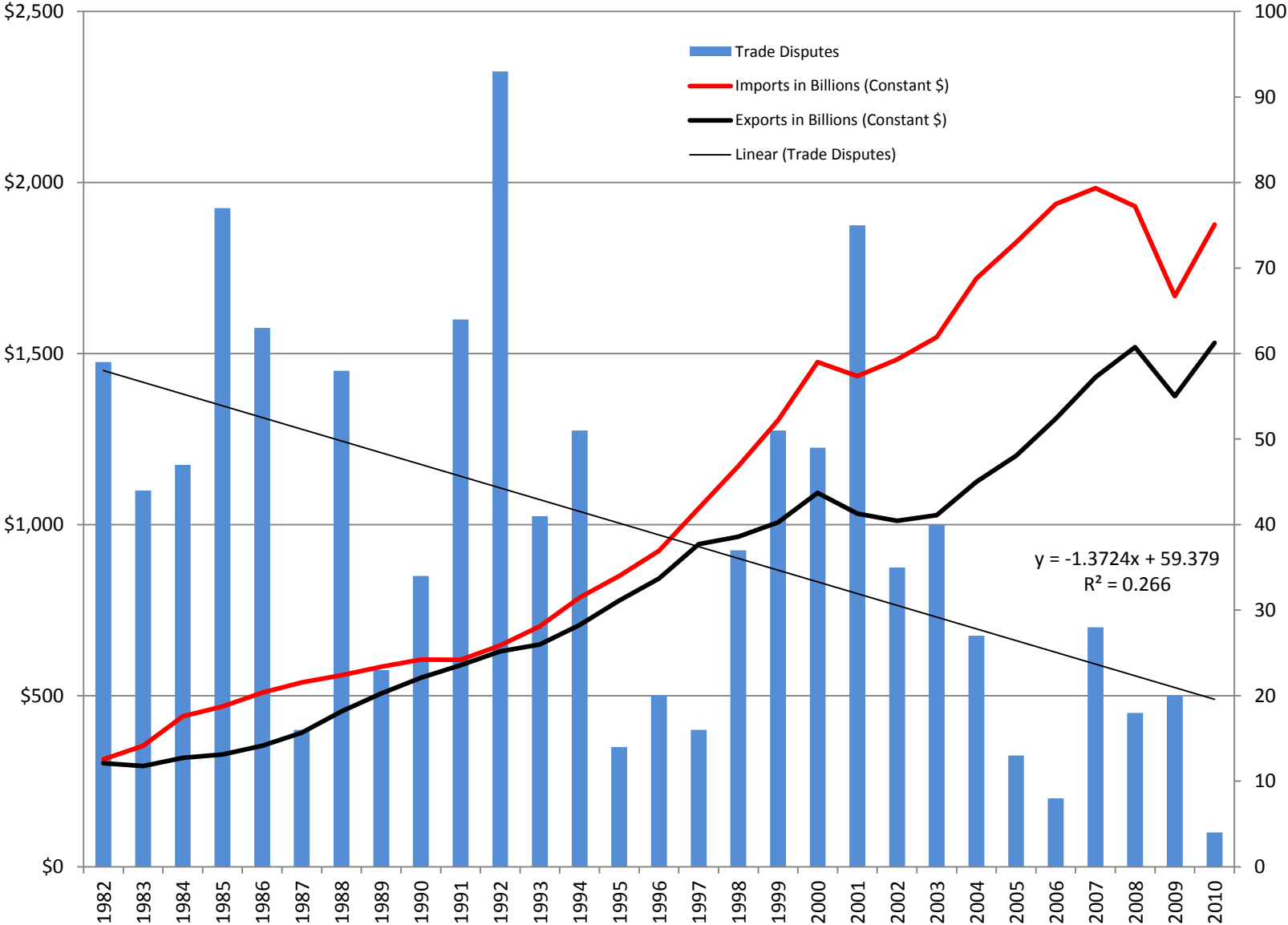
SOME STYLED FACTS

- Trade is concentrated among a small number of firms
 - In the U.S. in 2000, just 3.1% of firms export; 2.2% import
 - Top 1% of trading firms account for 81% of U.S. trade
- Yet 90% of all trade mediated by firms (Bernard et al. 2009)
- And nearly half of all imports into the U.S. are intra-firm (i.e., imported from related parties)

THE PUZZLE

- How does heterogeneous participation in global value chains affect firms' political behavior in contexts of foreign currency undervaluation or overvaluation?
- Imports into the US have increased over time, but trade filings have declined in the 2000s. Why?

U.S. ANTIDUMPING DISPUTES AND TRADE, 1982-2010



RELATED LITERATURE

- The temporary trade barriers (TTB) literature to date focuses on ER levels and antidumping (AD) petitions
 - Broz and Werfel (2012); Knetter and Prusa (2003); Neils and Francois (2006); Oatley (2010, 2012); and Irwin (2005)
- In related work, Copelovich and Pevehouse (2011) document the relationship between bilateral real exchange rate movements and trade disputes at the WTO
- Our point of departure is that we expect firms' trade and investment flows to mediate their attitudes to foreign currency undervaluation

ORIGINS OF TRADE DISPUTES—OUR THEORY

- Global supply chains are an increasingly important feature of global trade
- We propose that the variation in firm demands for trade protection depends on whether firms benefit from related party imports under conditions of undervaluation, or do not
- In instances where firms have made sunk cost investments in countries with undervalued exchange rates, these firms will not file anti-dumping actions
- Under similar conditions, firms without international operations in these countries will oppose undervaluation and seek political remedy through temporary trade barriers

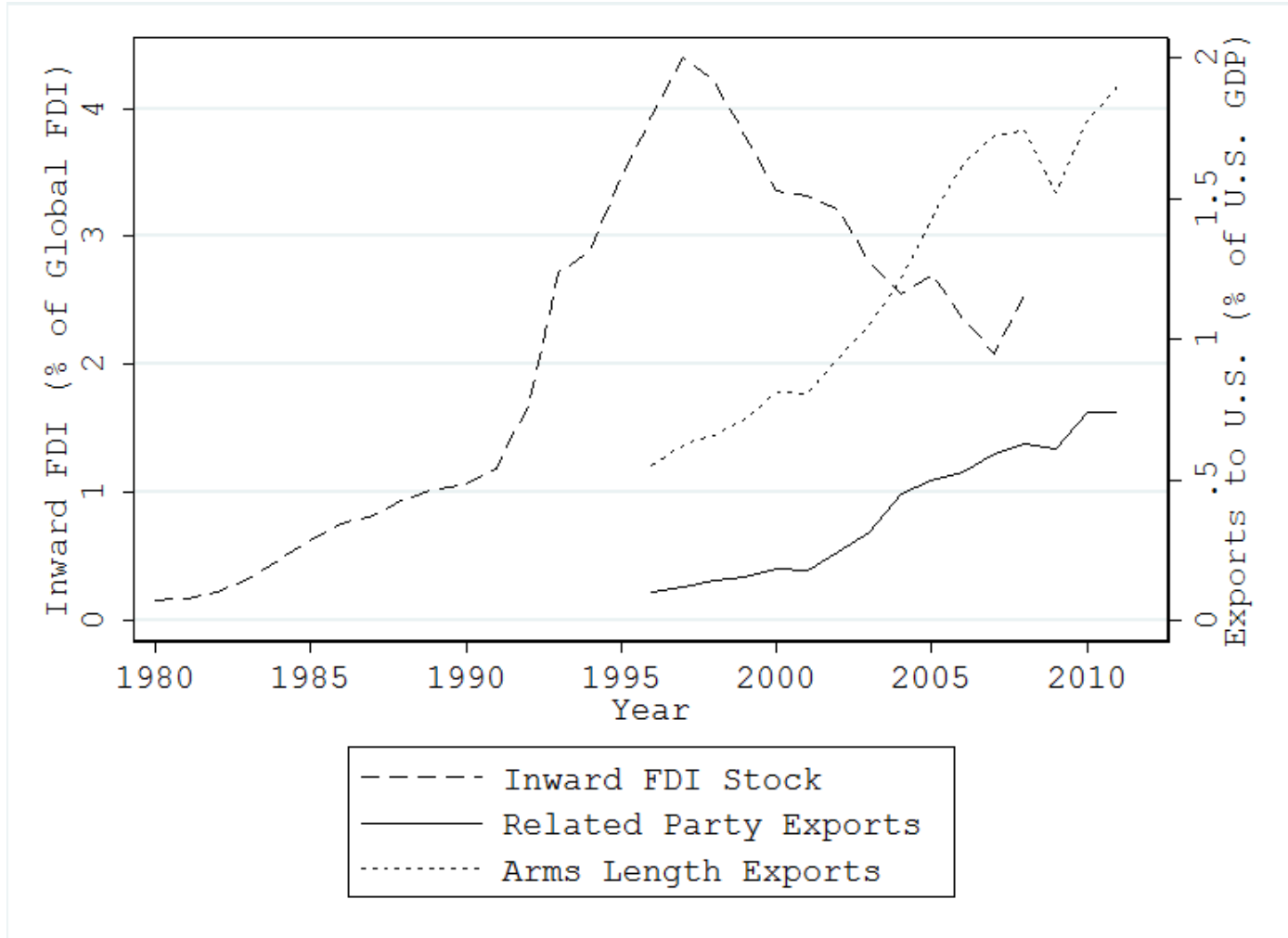
THEORY (CONT.)

- A firm's investment positions in countries with undervalued currencies (or lack thereof) drive their behavior toward the economic policies of trade partners
 - Consistent with Milner (1988), who argues that firms' international economic orientation drives their preferences for import protection
- Undervaluation's effects are mediated through a firm's investments in the undervalued currency or its related party imports from said currency (or both)

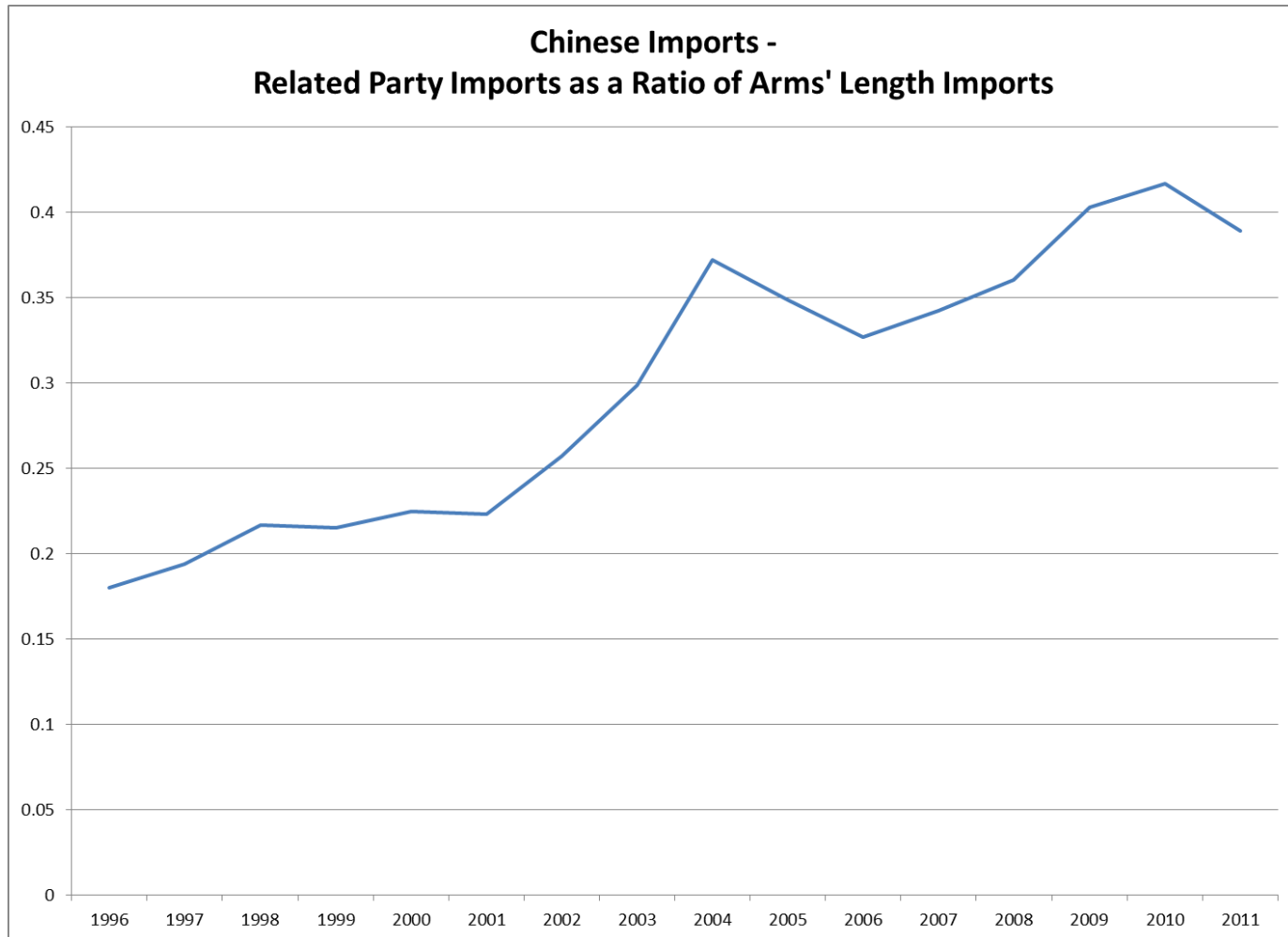
THEORY (CONT.)

- China's importance to global trade, its openness to FDI, and its undervalued currency present the possibility that trade politics will manifest themselves differently than in other contexts
- Large direct investments by US MNCs in China and the resulting supply chains in China will change the political calculus of these US firms for pursuing temporary trade protection through anti-dumping duties.

INVESTMENT AND TRADE WITH CHINA



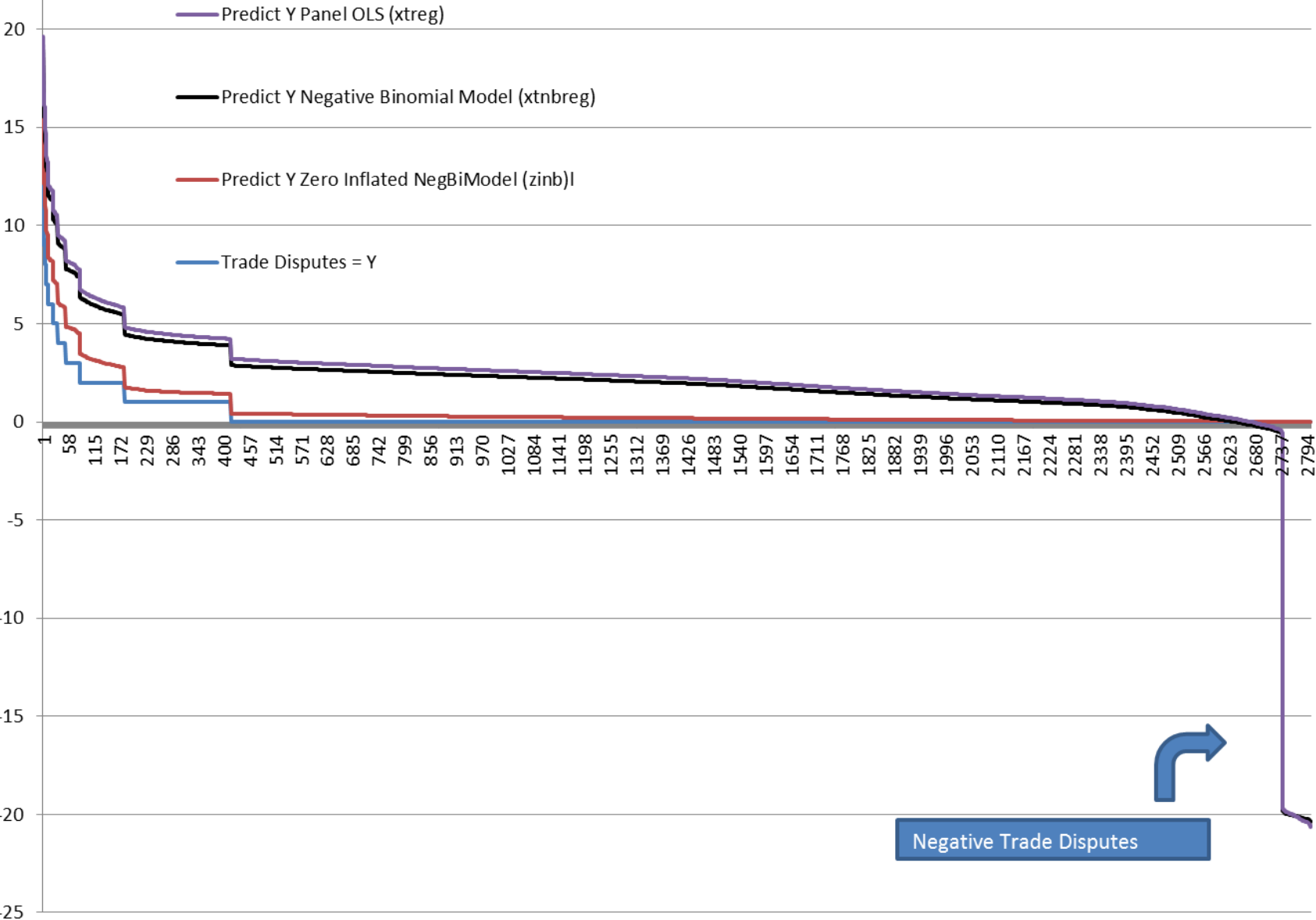
GROWTH IN U.S. INTRA-FIRM IMPORTS FROM CHINA



EMPIRICAL STRATEGY

- Model bilateral AD filings in the U.S., 1980-2010
- Examine the impact of foreign country exchange rate policies in conjunction with investment and trade flows
- Empirical obstacle: lots of zeros!
 - Negative binomial with random effects
 - Zero-inflated negative binomial, standard errors clustered by country
- The estimation strategy is consequential

Estimation Approaches to Model 1.1

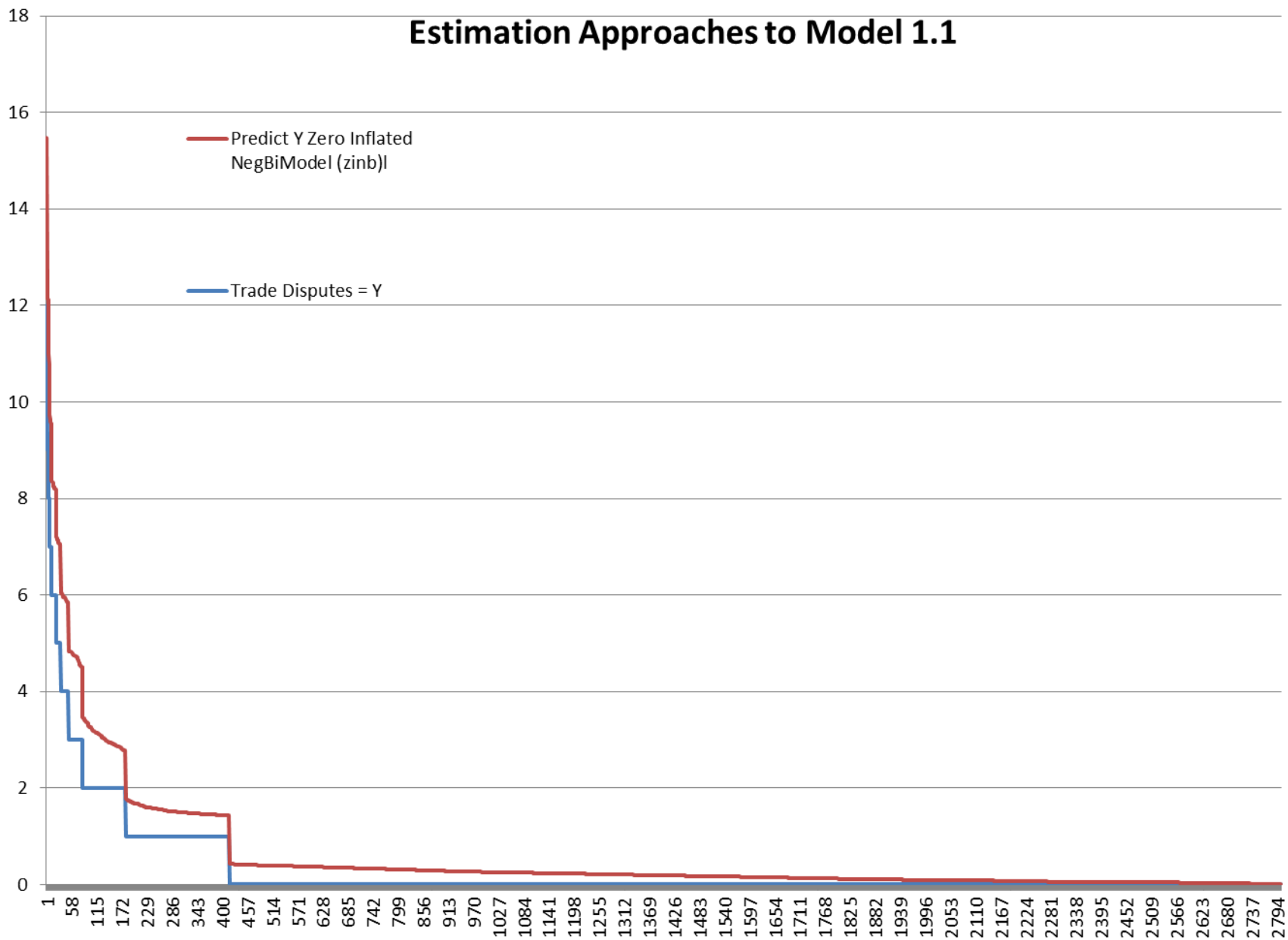


Negative Trade Disputes

Table 1. Bilateral Real Exchange Rate Undervaluation and Trade Disputes

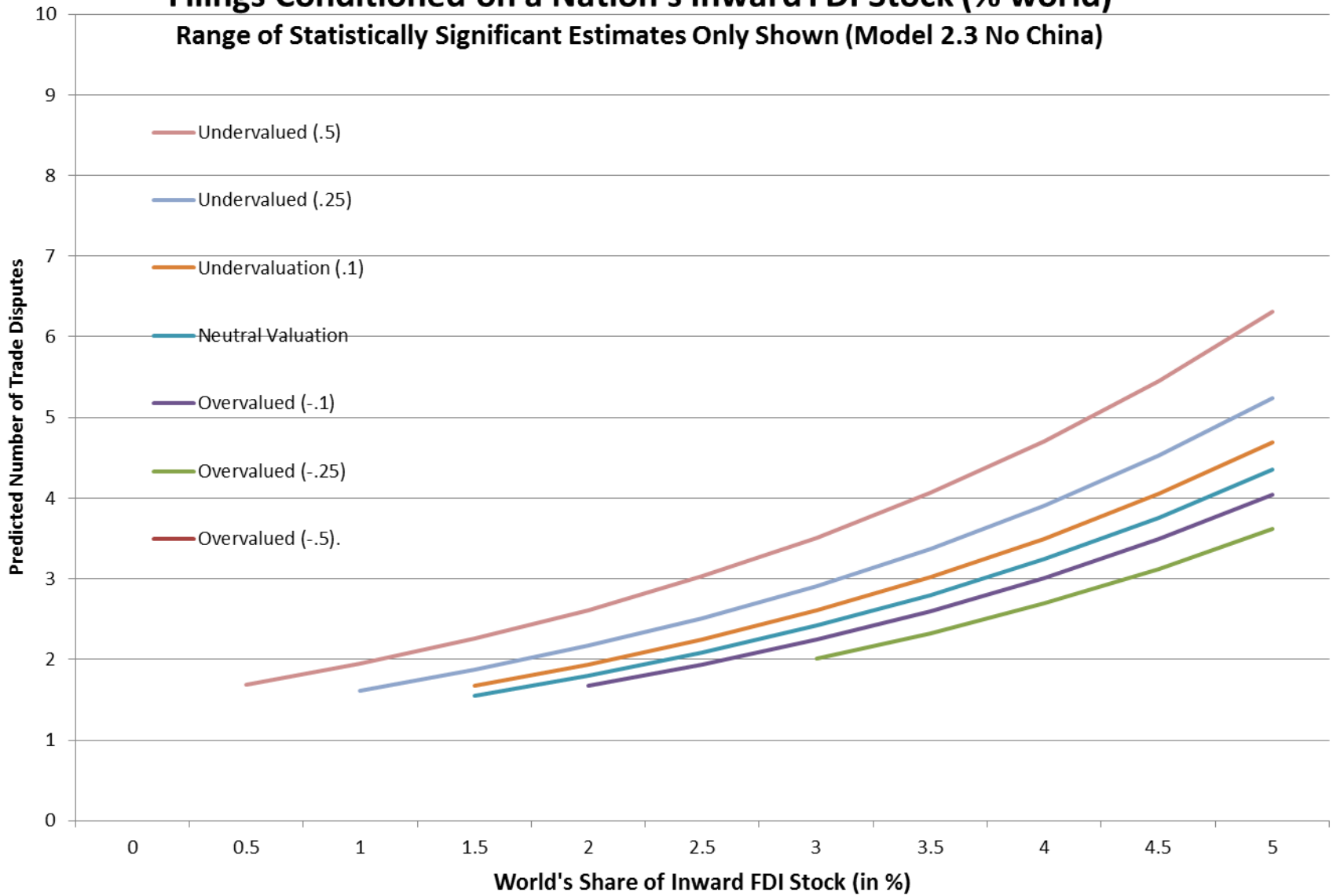
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					incl. China	incl. China	excludes steel	steel only
Undervaluation _{t-1}	-0.401 (0.484)	0.447** (0.181)	-0.022 (0.219)	0.905*** (0.211)	0.579** (0.286)	0.439** (0.176)	0.869*** (0.235)	0.884*** (0.251)
Disputes _{t-1}			0.358*** (0.047)	0.288*** (0.060)	0.288*** (0.061)	0.054** (0.022)	0.178*** (0.040)	0.298*** (0.067)
Trade Balance _{t-1}				-1.191*** (0.294)	-1.488*** (0.245)	-1.111*** (0.242)	-1.453*** (0.261)	-0.286 (0.341)
GDP/capita _{t-3}				0.629*** (0.187)	0.316 (0.240)	0.868*** (0.161)	0.421* (0.240)	0.808*** (0.179)
Polity _{t-1}				0.065*** (0.023)	0.026 (0.028)	0.042*** (0.015)	0.042 (0.029)	0.065*** (0.024)
Affinity with U.S. _{t-1}				-0.727* (0.401)	-0.189 (0.447)	-0.192 (0.353)	-0.027 (0.396)	-1.355*** (0.454)
Constant	1.020*** (0.264)	1.919*** (0.362)	0.554* (0.303)	-5.919*** (1.694)	-2.610 (2.532)	-5.150*** (1.339)	-5.250** (2.134)	-7.753*** (1.660)
first-stage								
Disputes _{t-3}	-2.930*** (0.454)		-15.103* (8.599)	-14.654*** (4.145)	-15.462*** (1.419)		-1.657*** (0.339)	-14.560*** (1.068)
Year dummies?	Y	Y	Y	Y	Y	Y	Y	Y
Log-likelihood	-1512.421	-1232.427	-1436.256	-1266.970	-1401.845	-1207.811	-740.984	-853.280
Observations	2893	2893	2893	2663	2692	2692	2663	2663
Countries	114	114	114	109	110	110	109	109
Vuong-stat	9.306	-	5.424	3.675	3.809	-	2.829	2.924

Estimation Approaches to Model 1.1



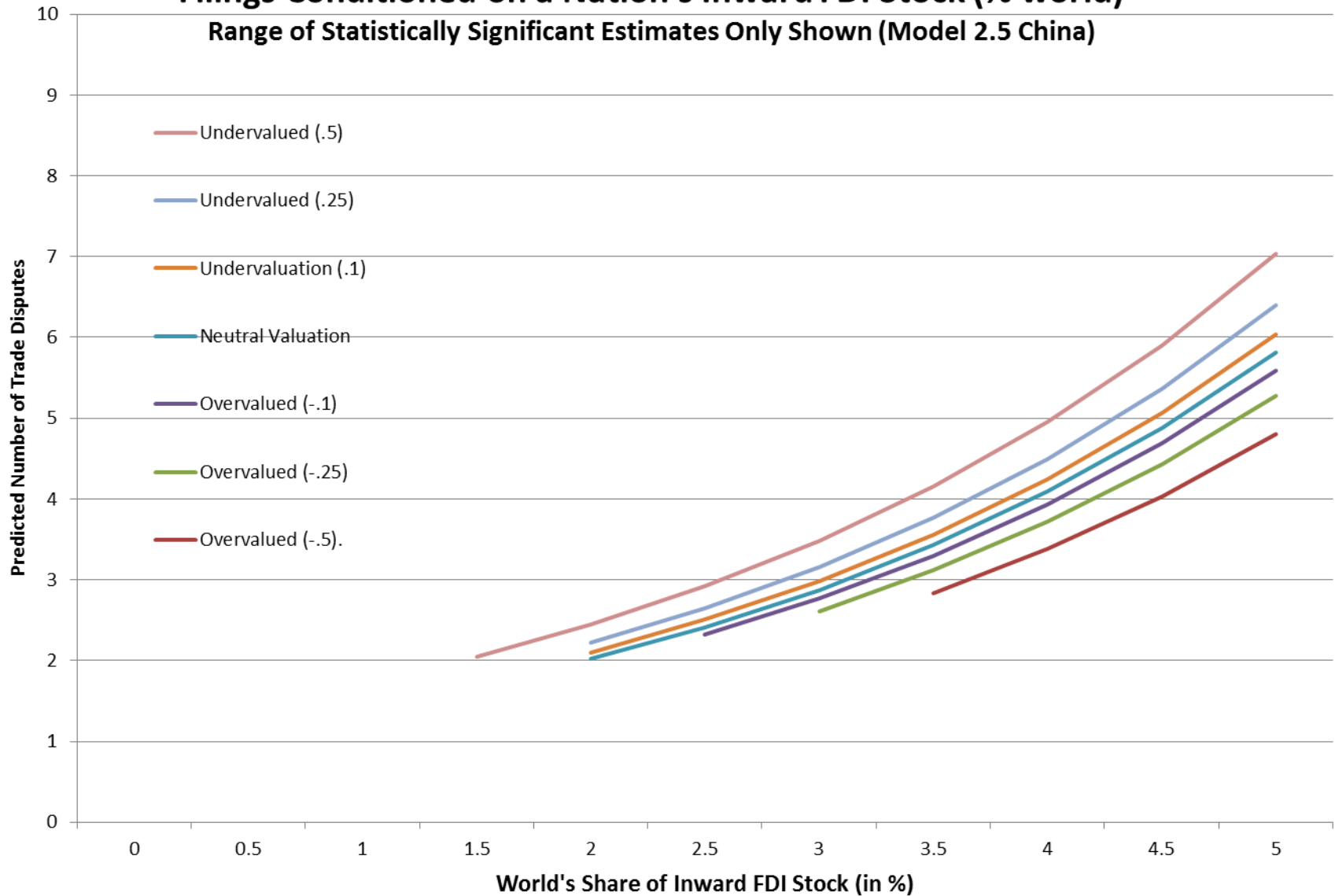
The Effects of a Change in Currency Valuation on US Trade Dispute Filings Conditioned on a Nation's Inward FDI Stock (% world)

Range of Statistically Significant Estimates Only Shown (Model 2.3 No China)



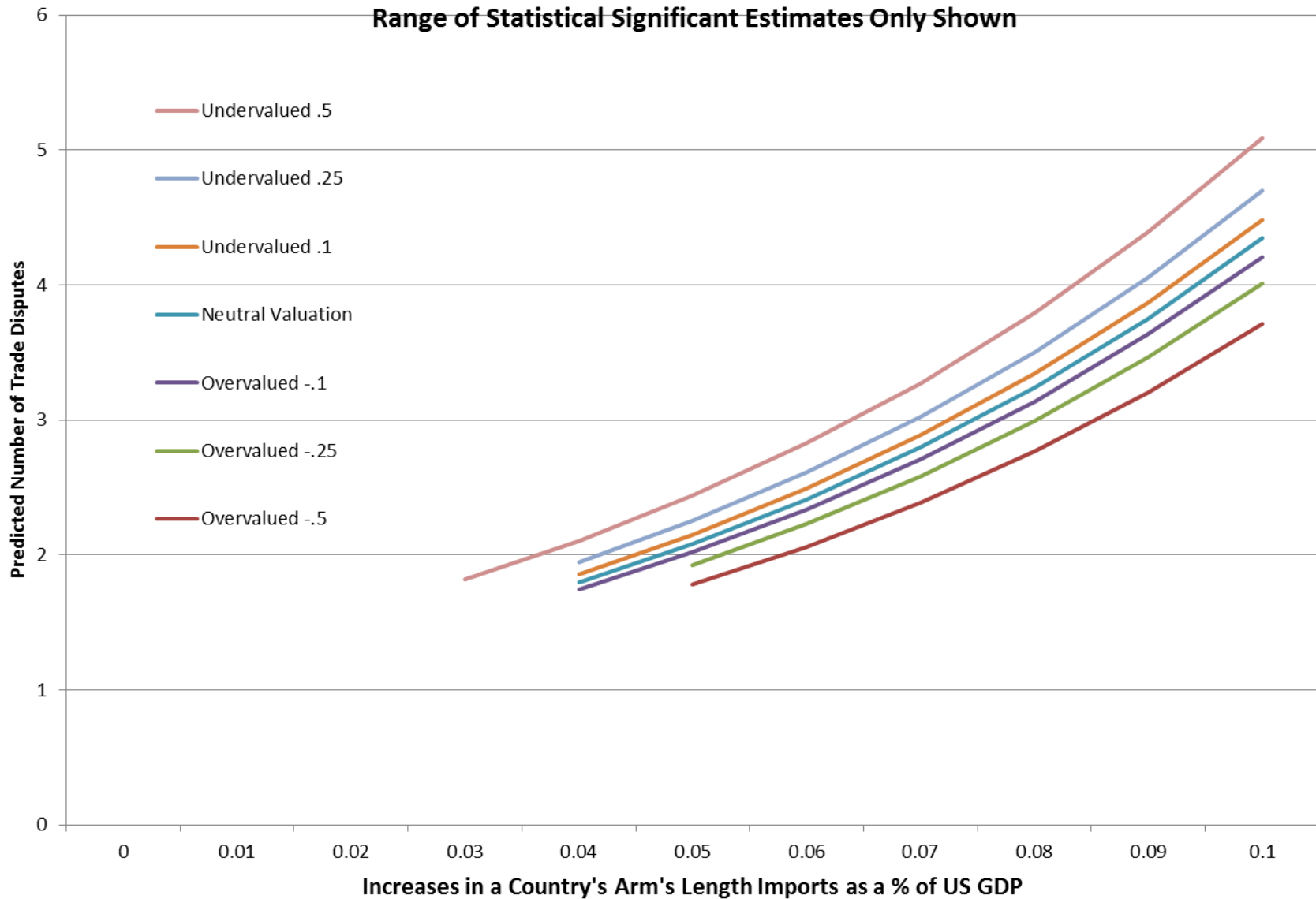
The Effects of a Change in Currency Valuation on US Trade Dispute Filings Conditioned on a Nation's Inward FDI Stock (% world)

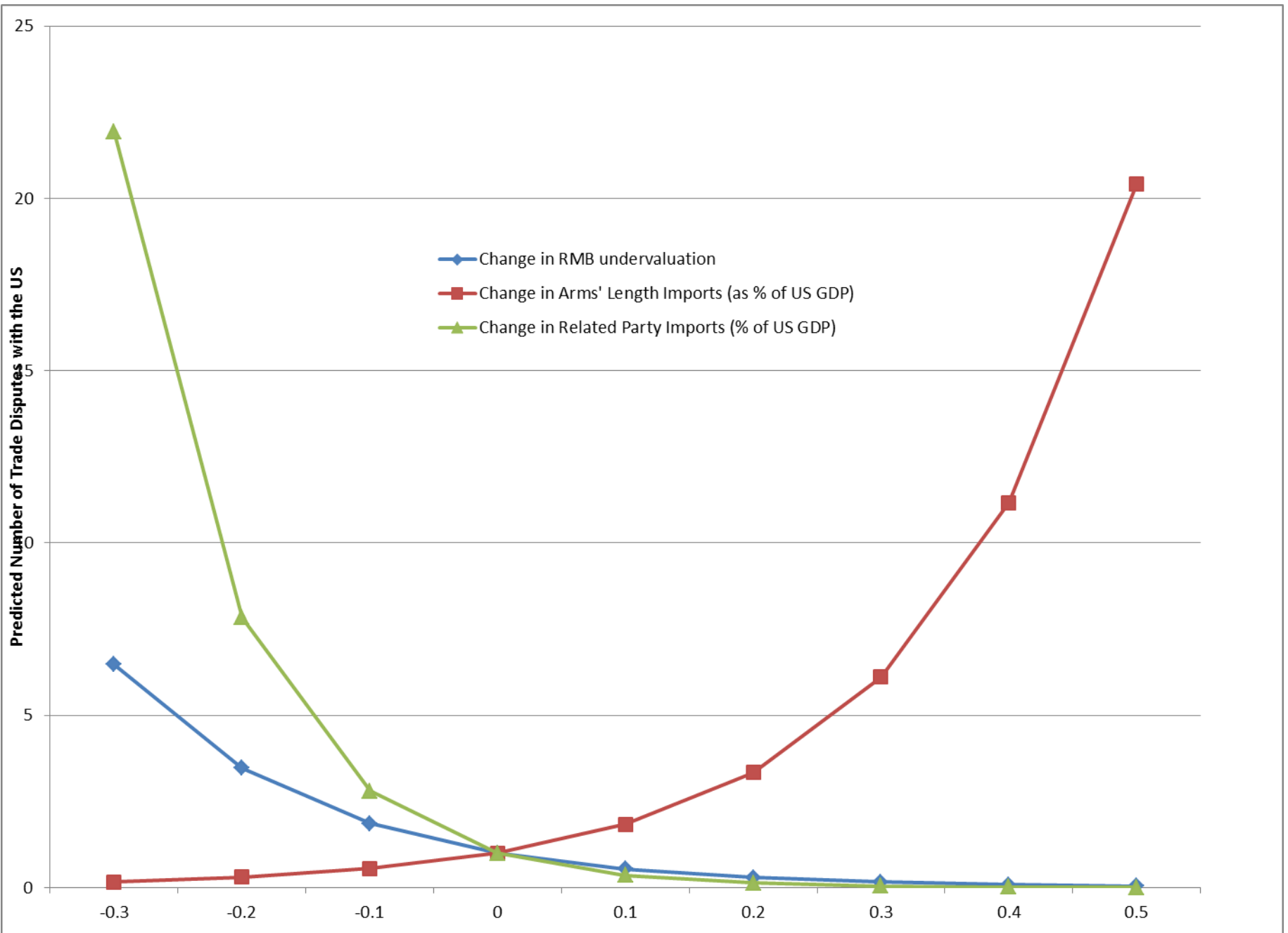
Range of Statistically Significant Estimates Only Shown (Model 2.5 China)



The Effects of Undervaluation on Trade Disputes: Conditioned on Increases in Arm's Length Imports as % of US GDP

Range of Statistical Significant Estimates Only Shown

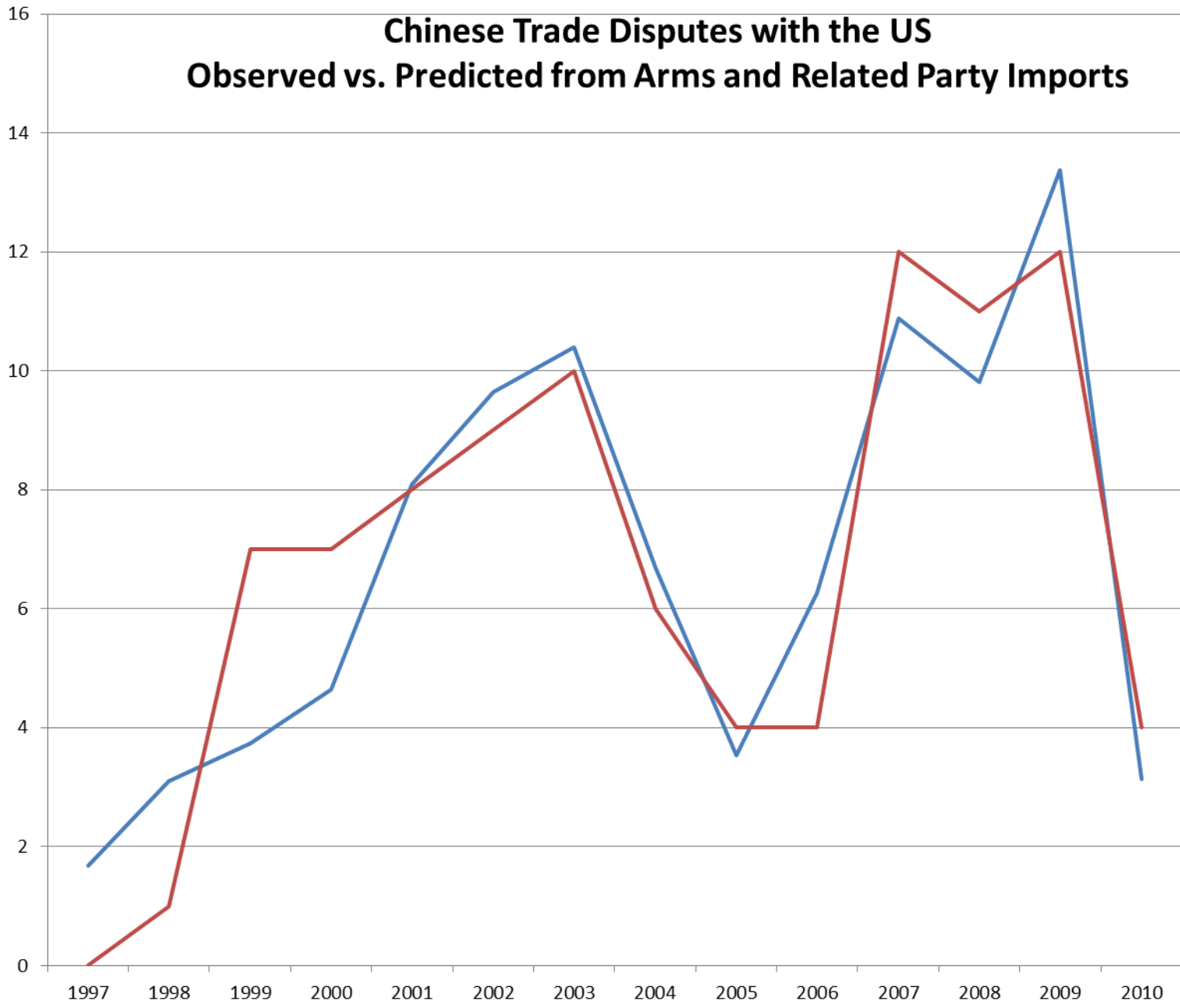




Chinese Trade Disputes with the US

Observed vs. Predicted from Arms and Related Party Imports

Predicted and Observed Number of Chinese Trade Disputes with the US



prediction
dispute

UNDER WHAT CONDITIONS DOES INCREASING UNDERVALUATION LEAD TO MORE TRADE DISPUTES?

Not:

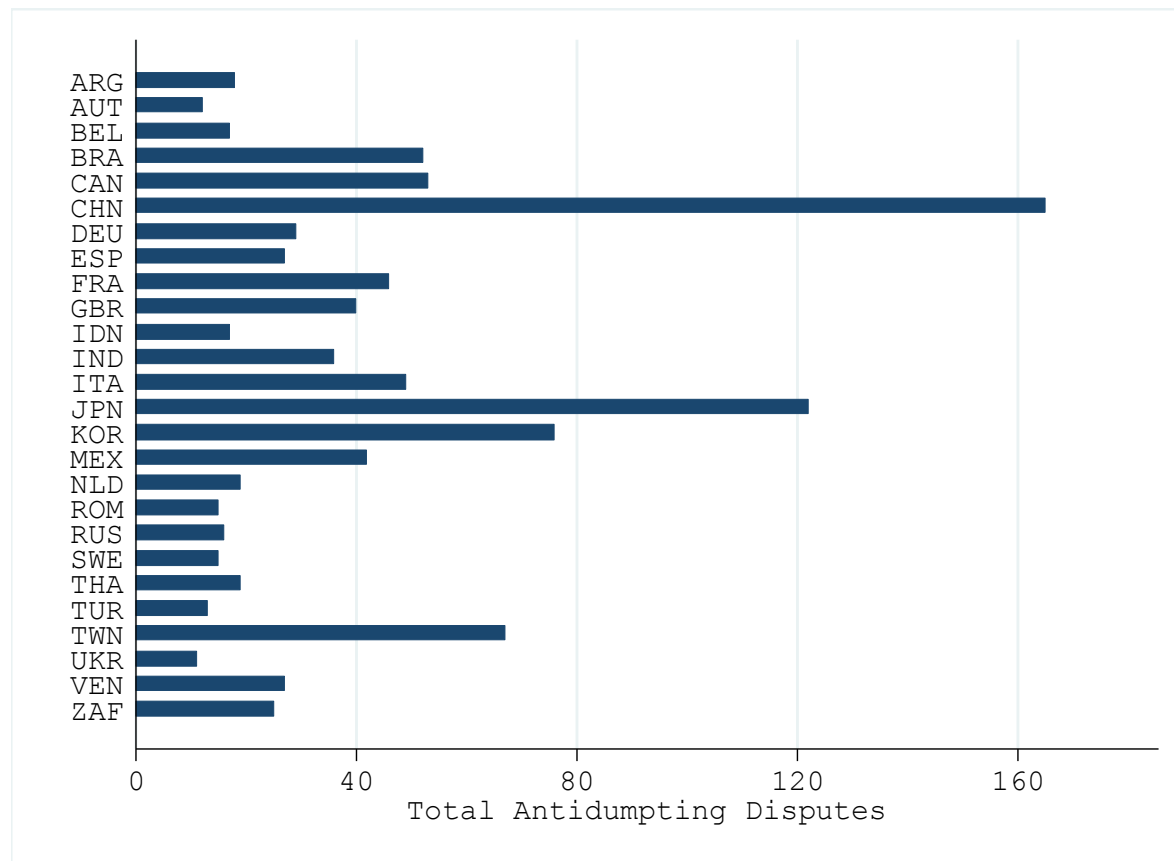
- against countries with low levels of world share of Inward FDI
- against countries from which the US has high levels of Related-Party imports
- against China

But, yes:

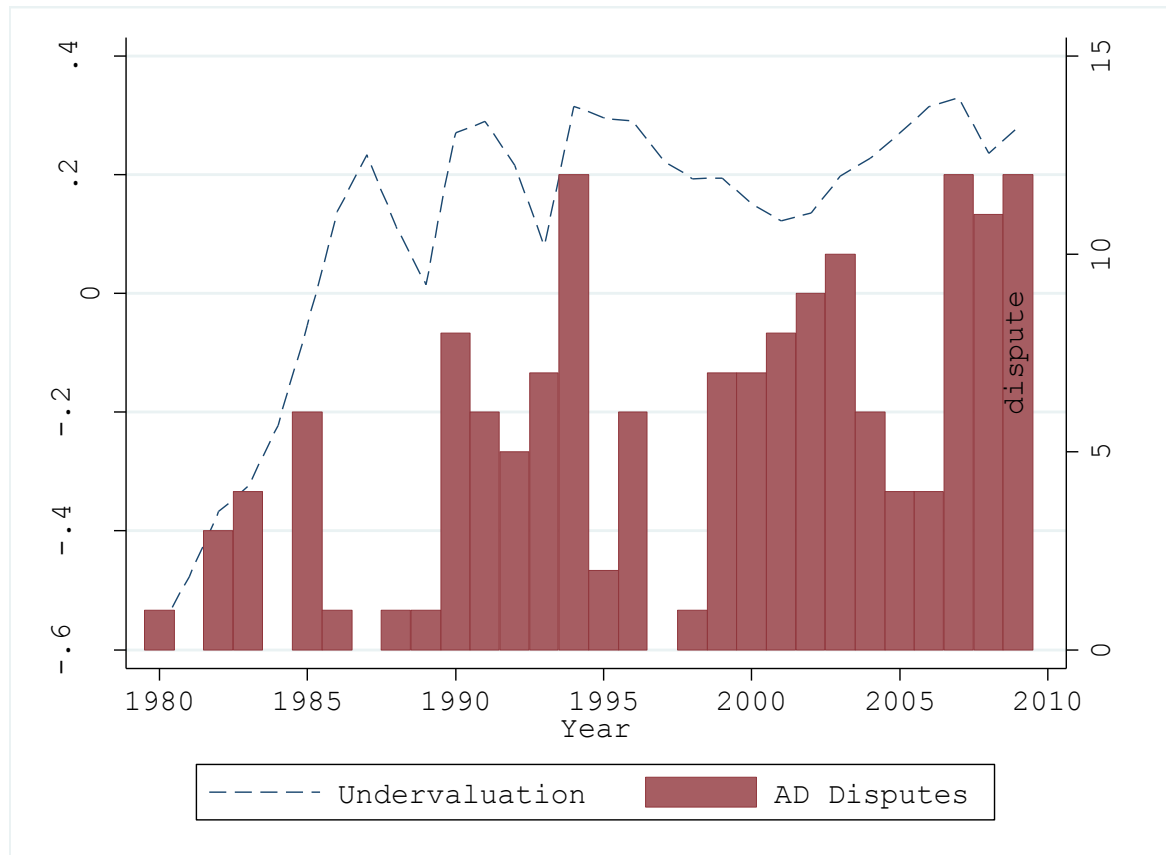
- against countries with high levels of Inward FDI
- against countries from which the U.S. has high levels of Arm's-length imports

Coming Soon: Characteristics of firms that file AD petitions

TOTAL AD DISPUTES AGAINST HIGH DISPUTE COUNTRIES



RENMINBI UNDERVALUATION AND AD FILINGS



UNDERVALUATION IN SELECT COUNTRIES, 1980-2010

