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Policy Rules for Capital Controls

Gurnain Kaur Pasricha
Bank of Canada

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The views expressed in the presentation are mine. No responsibility for them should be attributed to the Bank of Canada or the BIS.

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Ongoing debate on objectives of capital controls policy

- **Macroprudential:** Mitigate systemic risk from excessive foreign borrowing
  - Mendoza, 2002; Korinek, 2011; Bianchi, 2011; Uribe, 2007

- **Mercantilist**: Exchange rate management to maintain export competitiveness
  - Costinot et al., 2013; Dooley et al., 2013; Fratzcher, 2013

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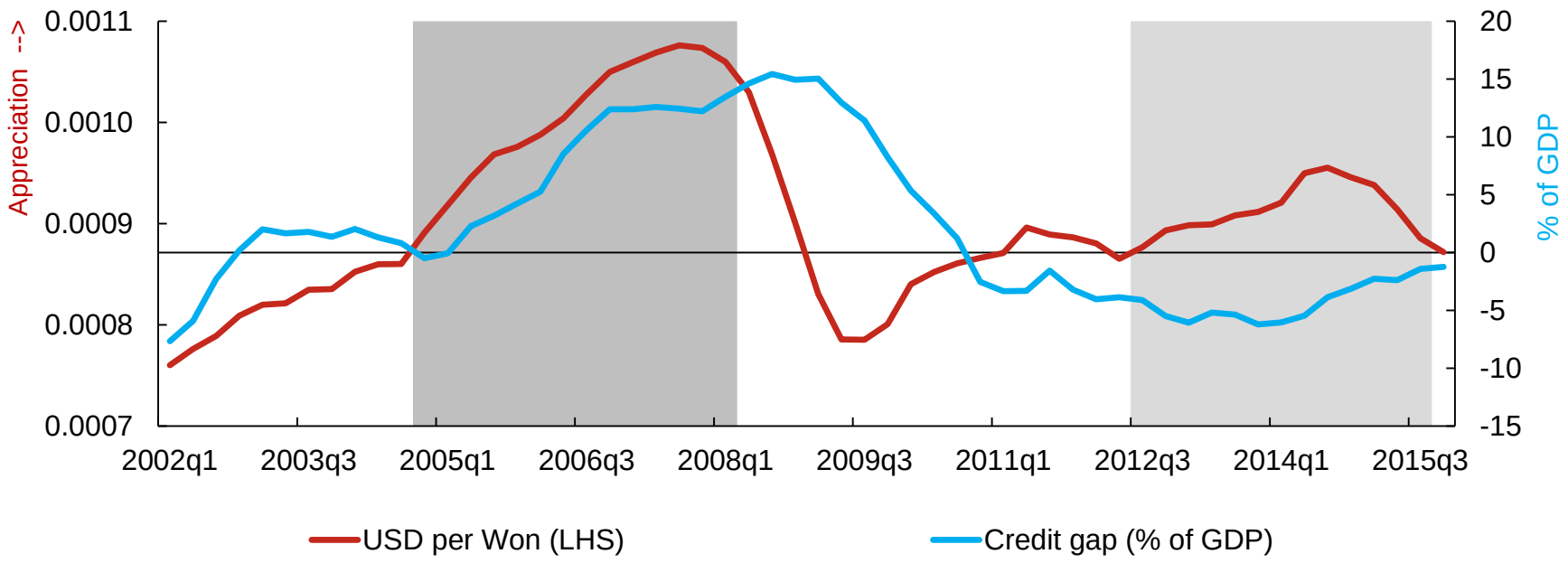
The different objectives of capital controls policy can involve trade-offs

Korea

4-Quarter Moving Averages



Source: BIS, IMF International Financial Statistics and Datastream

Last observation: 2015q4

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A policy rule describes systematic response of policy to competing objectives

- Long tradition of estimating policy rules for monetary policy
  - Example: Taylor Rules (1993, 1999)
- No similar rules – *descriptive* or *prescriptive* - exist for capital controls policy
- This paper estimates a descriptive policy reaction function for capital controls
- A systematic and transparent policy:
  - Improves predictability – for markets, firms, other countries
  - Improves accountability and policy effectiveness

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Contributions to the Literature

- Systematically examines the different motivations for capital controls policy actions
  - Existing papers do not focus on the motivation behind NKI response : Fernandez et al. (2015) , Fratzscher (2015), Forbes et al. (2015), Aizenman and Pasricha (2013)
  - This paper: Policy reaction function approach - focus on specific policy objectives, and trade-offs therein
  - Tests a large number of variables predicted by theory and from early warning literature

- Proposes a new proxy for mercantilist concerns
  - Weighted real appreciation against top 5 trade competitors
  - First to provide evidence of mercantilist motivations for capital controls use

- Uses a new dataset on capital control policy actions
  - Extends Pasricha, Falagiarda, Bijsterbosch, Aizenman (2018 JIE) data from 2012 to 2015
  - 21 EMEs, 1 January 2001 - 31 December 2015, weekly frequency

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Preview of Results

- Policy responds equally to macroprudential and mercantilist motivations
- There is a method to the choice of instruments:
  - Policymakers respond to mercantilist concerns by using **both** instruments: inflow tightenings and outflow easings
  - **Only** inflow tightenings in response to macroprudential concerns
- However, policy is not well-targeted:
  - No systematic response to foreign currency debt or external credit

Two novel datasets: Capital controls policy actions and mercantilism proxy

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Dataset contains ~1300 policy actions for 21 EMEs, 1 January 2001 - 31 December 2015

- **A policy action:** Easing or tightening of a regulation affecting cross-border transactions.
  - Example: Brazil's 2% tax on inflows, effective 20 October 2009

- **Sources:** IMF AREAER, Central Banks/Regulators' websites, OECD reports, news sources, other research papers

- **Methodology**: Count the number of policy actions per week
  - Example: Number of inflow tightenings per week

*Dataset available online at: http://www.nber.org/data-appendix/w20822/

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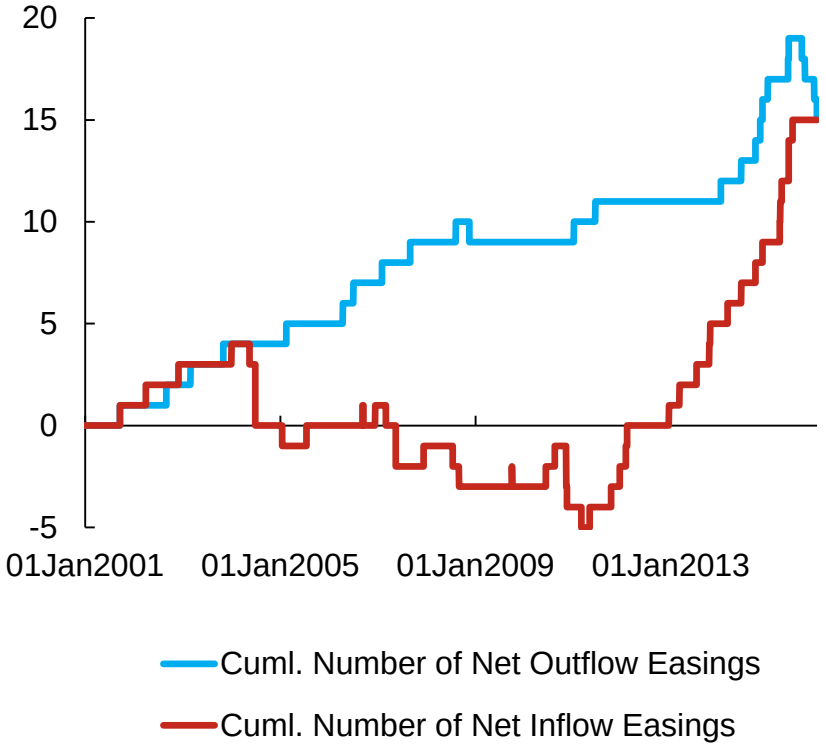
Existing indices of capital controls measure status-quo, not how policy is actually used

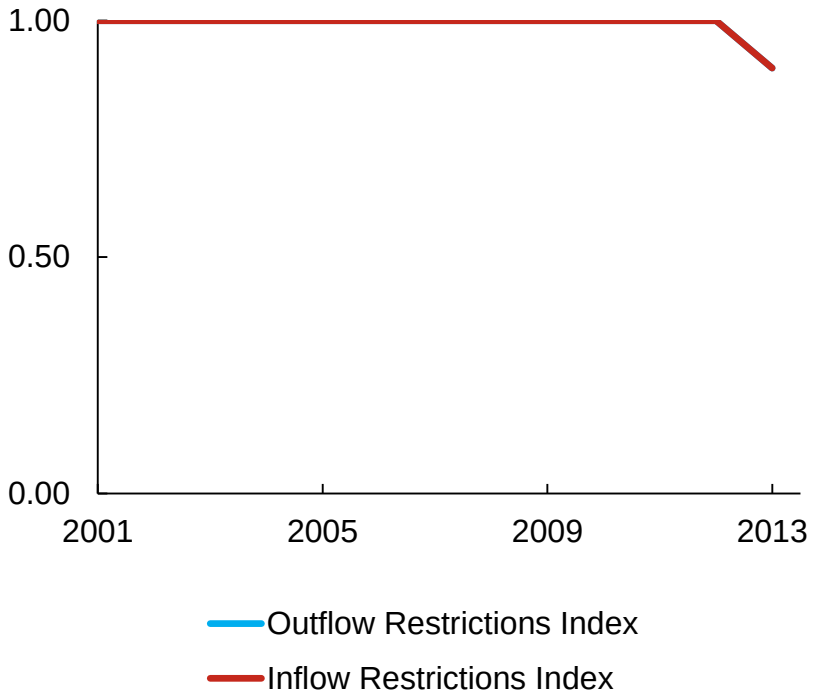
China: Pasricha et al. (2015) Index
Higher values = More openness



Source: Author's calculations

Last observation: 30-Dec-2015

China: Fernandez et al. (2015) Index
Higher values = More restrictions



Source: Fernández, Klein, Rebucci, Schindler and Uribe (2015)

Last observation: 2013

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Issue: Resisting nominal/real appreciation could be both mercantilist and macroprudential

- Simply finding that policy responds to exchange rate doesn't imply policy is mercantilist (or macroprudential)
  - Exchange rate appreciation relaxes collateral constraint (denominated in creditors' currency) and facilitates over-borrowing (Bianchi, AER 2011; Korinek and Sandri, 2015)
  - **Appreciation against USD makes you uncompetitive and increases systemic risk**
- **Proposed Solution**: Mercantilism Proxy: Measure nominal/real appreciation against trade competitors
  - Most trade competitors of EMEs are other EMEs and EMEs do not borrow in other EME's currencies
  - **Appreciation against competitors makes you uncompetitive but doesn't increase systemic risk**

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Mercantilism Proxy

- **Identify top 5 trade competitors for each EME**:
  - Merchandise Trade Correlation Index (UNCTAD) measures similarity of trade specialization index between economies
  - 1995-2012

- **Construct weighted appreciation against trade competitors**:

Nominal : $WAPPR_{it} = \sum_{j=1}^{5} Trade\ Correlation_{ijt}\ (Appreciation_{ijt})$

Real : $W\boldsymbol{R}APPR_{it} = \sum_{j=1}^{5} Trade\ Correlation_{ijt}\ (Appreciation_{ijt} + Inflation_{it-1} - Inflation_{jt-1})$

Methodology

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Empirical Strategy: Panel Ordered Logit

$$\Pr(y_{it} = s_j | x_{it-1}) = f\{X_{it-1}^{MP}\beta^{MP} + X_{it-1}^{FX}\beta^{FX} + \mathrm{X}_{it}^{G}\beta^{G} + \mathrm{X}_{it-1}^{DP}\beta^{DP}\},$$

X_{it-1}^{MP} , X_{it-1}^{FX} = Variables representing Macroprudential (MP) and Mercantilist (FX) motivations respectively.

X_{it}^{G} = Global variable (VIX) and/or Global Liquidity, Crisis Dummy

X_{it-1}^{DP} = Previous policy action [Easing/Tightening];
Other Domestic policies [Fiscal, Monetary policy stance (>0 = tightening)]

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For inflow tightening, macroprudential and mercantilist variables both important

	Dependent Variable: Weighted Net Inflow Tightenings (non-FDI)				
	(1)	(2)	(3)	(4)	(5)
Mercantilism Proxy (Country-Specific)	1.33***				
Mercantilism Proxy (Nominal, 13-wk appr, %)		1.27***			
Mercantilism Proxy (Real, 13-wk appr, %)			1.26**		
Mercantilism Proxy (Nominal, yoy appr, %)				1.27***	
Mercantilism Proxy (Real, yoy appr, %)					1.24***
Bank Credit-GDP gap (%)	1.29***	1.30***	1.31**	1.28**	1.30**
Previous policy action (T, E)	1.32***	1.33***	1.32***	1.33***	1.32***
Observations	7,448	7,448	7,448	7,448	7,448
Number of Countries	11	11	11	11	11
Pseudo-Log Likelihood	-1712	-1715	-1716	-1716	-1716
Chi-Squared (All coefficients =0)	73.55	68	76.12	60.21	60.67
P-value (Chi-Squared)	0.00	0.00	0.00	0.00	0.00

Note: Table reports proportional odds ratios. Other controls included in all regressions are: Fiscal Policy Stance (>0=tightening), Monetary Policy Stance (>0=tightening), VIX and a Crisis Dummy. *** p<0.01, ** p<0.05, * p<0.10

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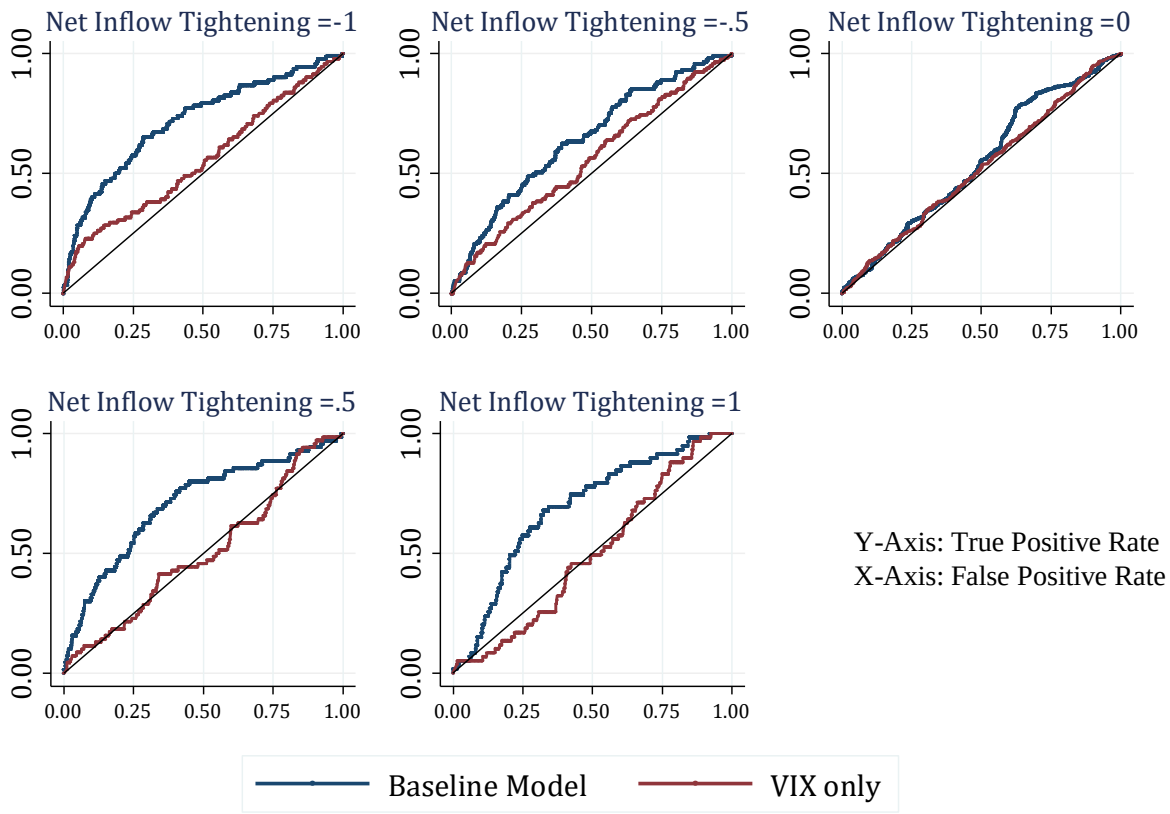
Comparing models using ROC: Baseline model outperforms a VIX only model



Notes: The graphs compare the Receiver Operating Characteristic (ROC) curves for baseline models, with country-specific mercantilist proxy and domestic credit gap along with other domestic policy controls, against those with VIX and crisis dummy only. Each model is panel logit, with dependent variable re-defined to be a dichotomous variable. For example, the top left panel the dependent variable takes value 1 when the ordered net inflow tightening variable =-1, and 0 otherwise. Vertical axis plots the true positive rate and the horizontal axis plots the false positive rate for different models and cut-off probabilities.

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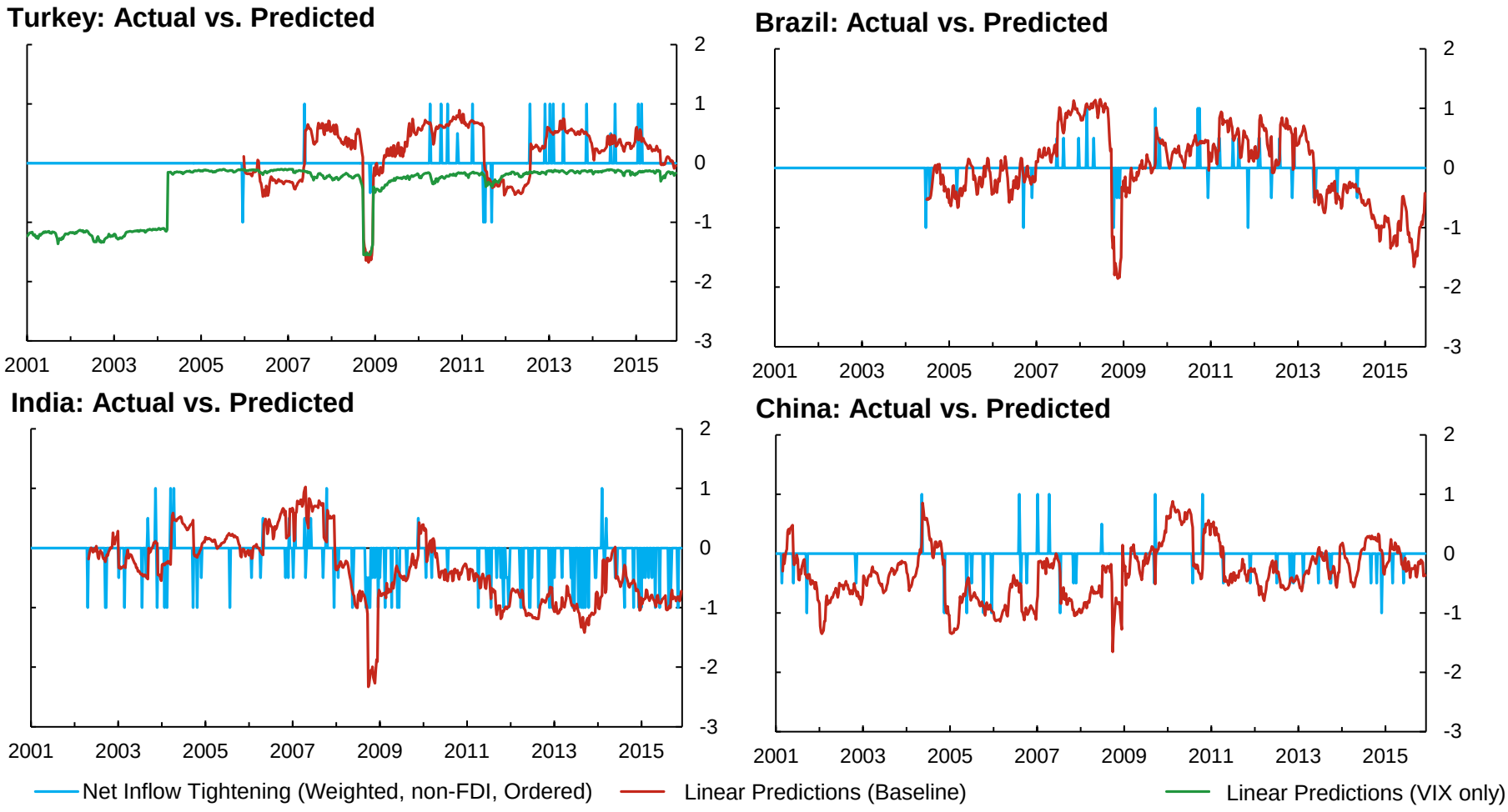
Predicted latent variable has a high degree of co-movement with actual Net Inflow Tightening actions



Source: Author's Calculations

Last observation: 31 December 2015

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Capital controls are not well targeted to systemic risk from foreign or foreign currency borrowing

Dependent Variable: Weighted Net Inflow Tightenings (non-FDI)				
	N	Rank Probability Score	Sign	Significant?
Baseline Model	6641	0.066		
Bank Credit/GDP, (yoy gr)	6641	0.066	-	No
Equity Prices (Trend Dev.)	6641	0.066	+	No
Equity Prices (yoy gr)	6641	0.066	+	No
External Credit/GDP (Trend Dev.)	6641	0.066	-	No
External Credit/GDP (yoy gr)	6641	0.066	+	No
External Credit/GDP, Non- Banks (Trend Dev.)	6641	0.066	-	No
External Credit/GDP, Non- Banks (yoy gr)	6641	0.066	-	No
External Debt Securities Net Flow (% of GDP)	6641	0.066	-	No
External Debt Securities Stock (% of GDP)	6641	0.066	-	No
Foreign Currency Debt Securities Stock (% of GDP)	6641	0.066	-	No
Foreign Currency Debt Securities Stock (Trend Dev.)	6641	0.066	-	No
Foreign Currency Debt Securities, Net Flows (% of GDP)	6641	0.066	-	No
Other Investment Inflows (Trend Dev.)	6641	0.066	+	No

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Countries can reduce exchange rate appreciation pressure by liberalizing capital outflows

- Net Capital Inflows = Gross Inflows – Gross Outflows
- Repeat the preceding analysis for:

Number of Net NKI Restricting actions per week

= Net Inflow Tightenings + Net Outflow Easings

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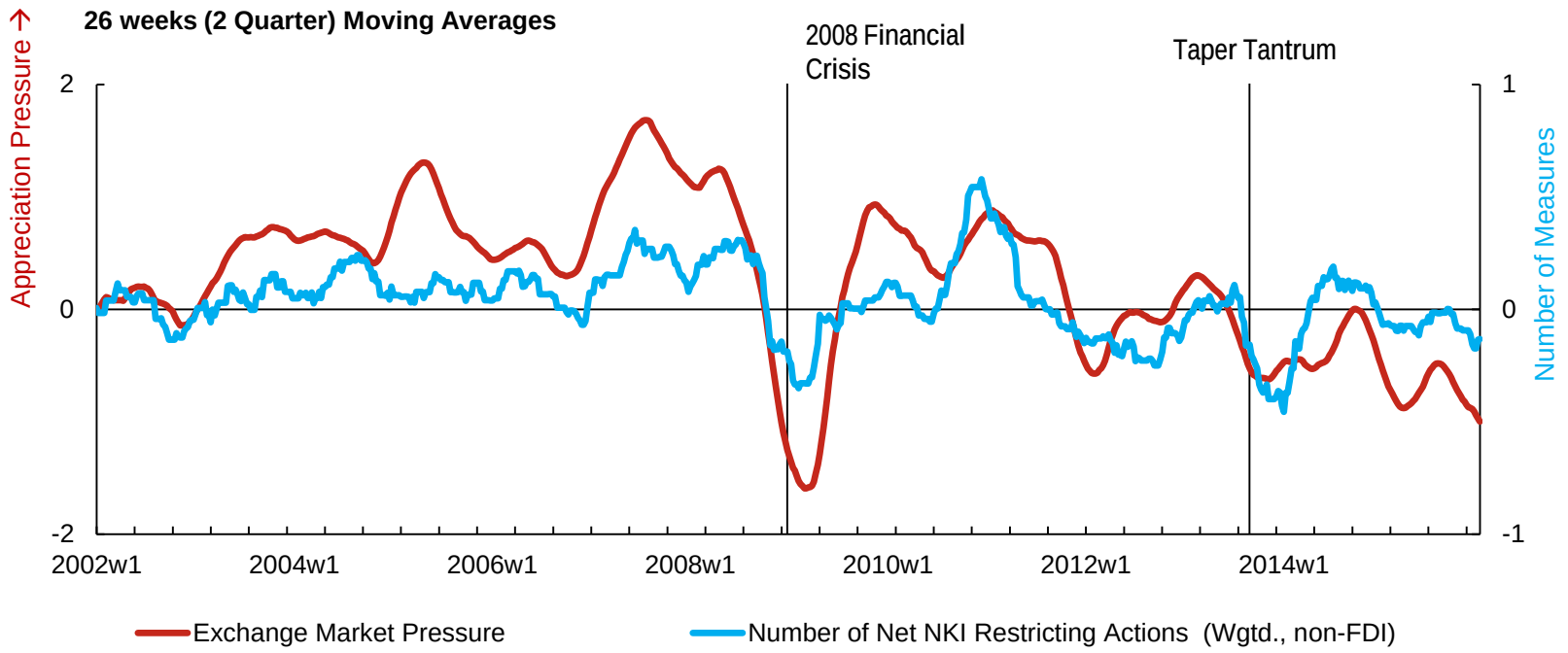
Net NKI Restricting Measures respond strongly to appreciation pressures against US Dollar



Source: IMF International Financial Statistics, Datastream and Author's calculations

Last observation: 2015w52

Note: Exchange market pressure index is the EME-average. Each emerging market's EMP is computed as the sum of standardized appreciation in nominal exchange rate against US Dollar and standardized percentage increase in foreign exchange reserves excluding gold. The reserves series is interpolated from quarterly data before computing percentage changes. Net NKI Restricting actions are computed as (Inflow Tightenings - Inflow Easings) + (Outflow Easings- Outflow Tightenings). The measures are weighted and exclude those related to FDI but include currency-based measures.

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Further analysis of the two motivations

1. Do countries with high export price elasticities respond more to mercantilist motivations?
   - Dummy = 1 for high export price ERPT countries
     - High ERPT to export prices means trading partners bear more cost of appreciation => exports potentially more sensitive to appreciation
     - Use Bussière , Gaulier and Steingress (2015) estimates of export price elasticities
2. Do macroprudential governance arrangements matter?
   - Dummy =1 after each country enhanced macroprudential policy frameworks. Examples:
     - India: Financial Stability and Development Council set up in 2010
     - Malaysia: Central Bank of Malaysia Act 2009 strengthened BNM's financial stability objective

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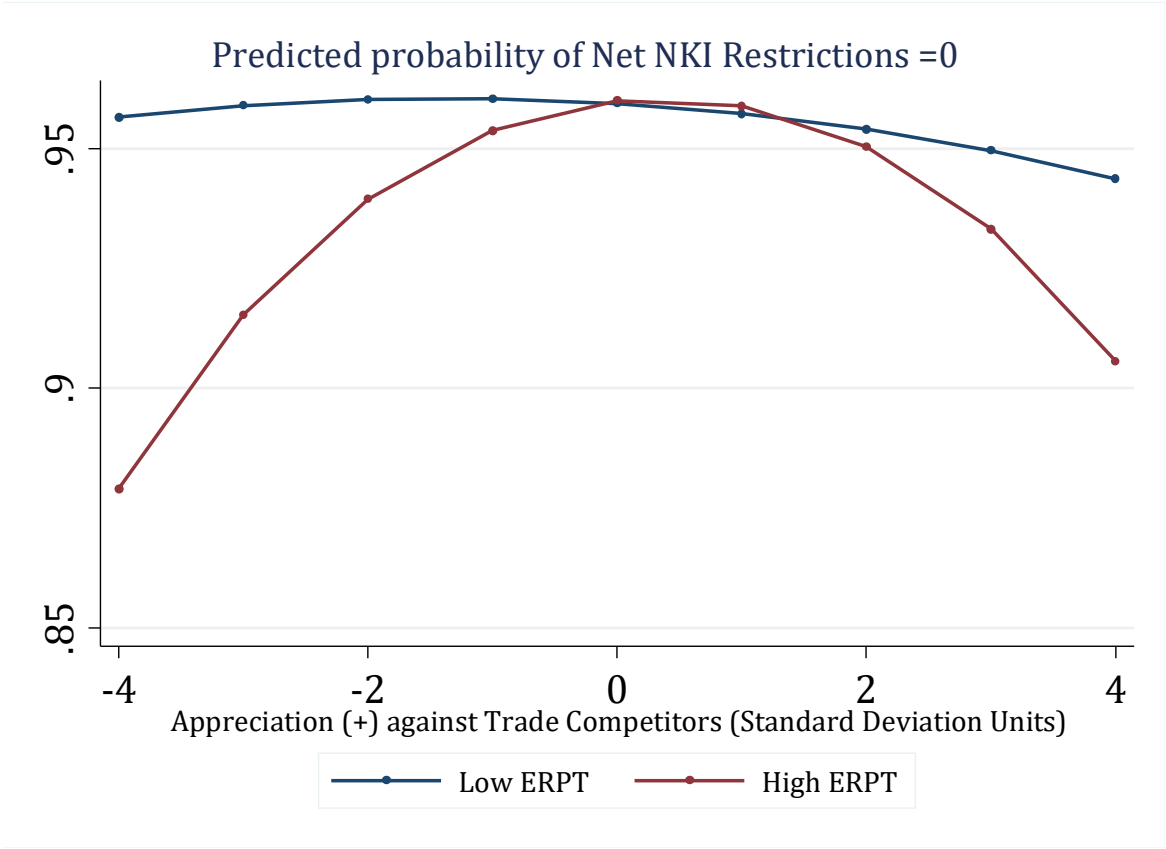
Countries with high ERPT respond more to currency pressures against trade competitors



Notes: The graphs plot the predicted probabilities of taking no net NKI restricting actions (inflow tightening + outflow easing actions) against values of country-specific mercantilism proxy (measured in standard deviation units).

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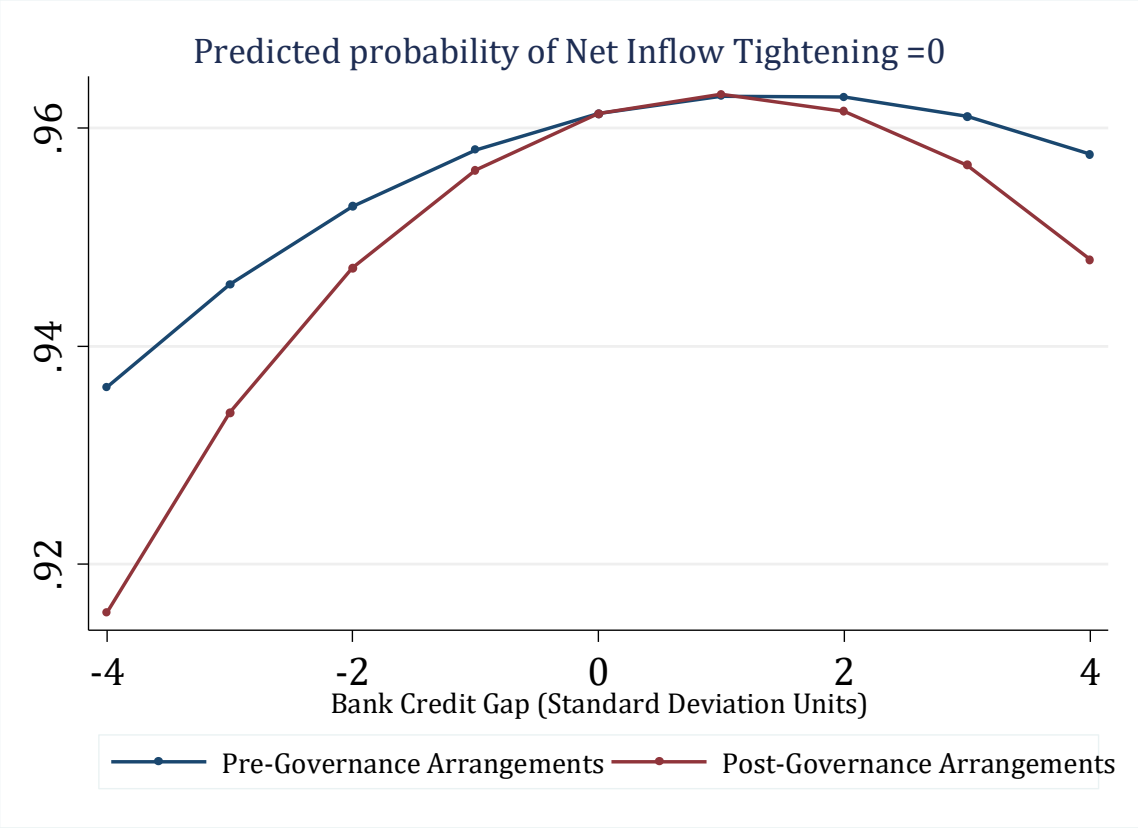
Stronger governance arrangements for macroprudential policy meant more responsiveness to Credit Gap



Note: The graph summarizes the marginal effects of the post-governance arrangements time dummy in a model predicting non-FDI weighted net inflow tightening measures.

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Robustness checks

- Alternative measures of capital control policy:
  - Without reducing the number of ordered categories
  - Unweighted policy actions
  - Include FDI-related changes
- All countries, not only active ones
- Controlling for other domestic variables:
  - Domestic macroprudential policy actions, overheating pressures, inflation expectations, reserves accumulation
- Replace VIX with other global variables – US FF shadow rate, Global bank liquidity, oil prices
- Model evaluation using out of sample forecasts

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Conclusions

1. **Capital controls are both macroprudential and mercantilist**
   - Mercantilism is associated with higher ERPT to export prices
   - Stronger governance arrangements for macroprudential policy meant more responsiveness to domestic credit
2. **Choice of instruments is also systematic:**
   - Policymakers respond to mercantilist concerns by using both instruments: inflow tightenings and outflow easings
   - Only inflow tightenings in response to macroprudential concerns
3. **However, policy is not well-targeted to foreign debt:**
   - No systematic response to foreign currency debt or external credit

Thank you

Paper available at:
https://www.bankofcanada.ca/2017/10/staff-working-paper-2017-42/
And
https://www.bis.org/publ/work670.htm

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Appendix

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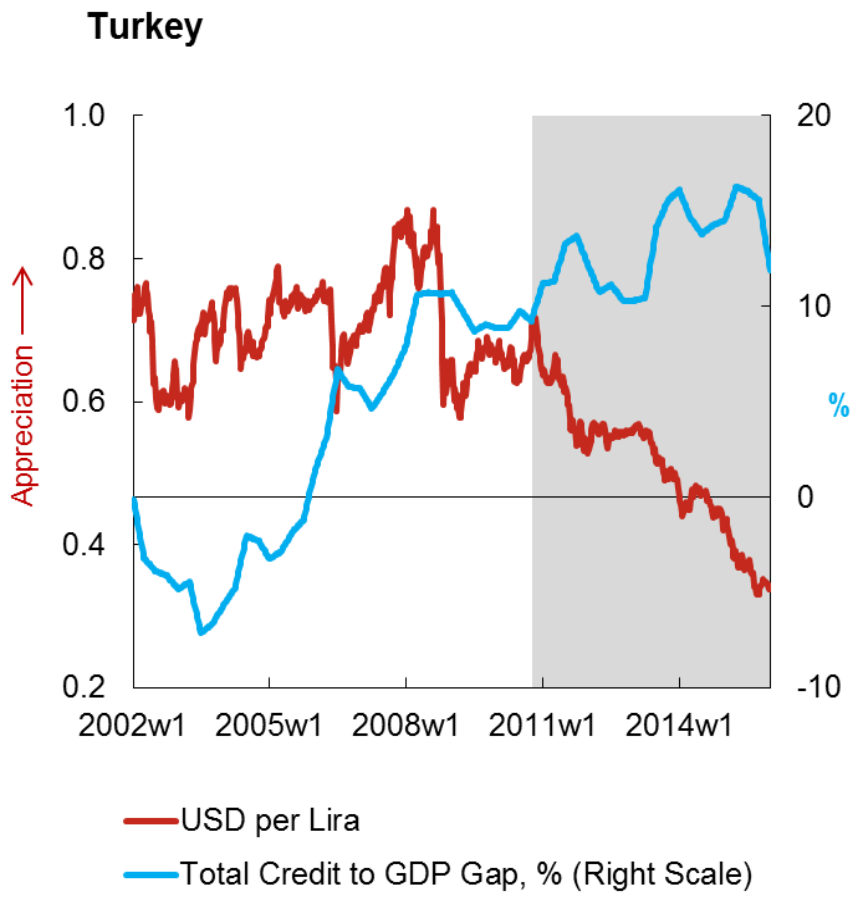
The trade-offs in different objectives of capital controls policy sharpened post-2011



Source: BIS and Datastream

Last observation: 2015w52

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Correlations between real effective exchange rate and external credit gap are often negative

	2001Q1–2015Q4	2001Q1–2005Q4	2006Q1–2010Q4	2011Q1–2015Q4
ARG	0.40**	-0.30	0.61**	-0.21
BRA	-0.62***	-0.89***	0.46*	-0.93***
CHL	-0.68***	-0.85***	0.57**	-0.89***
CHN	0.71***	-0.44	0.34	0.60**
COL	-0.52***	-0.34	-0.48*	-0.91***
CZE	0.63***	0.39	0.81***	0.19
HUN	0.59***	0.55*	0.08	0.87***
IDN	0.75***	-0.71***	0.85***	0.32
IND	-0.18	-0.24	-0.43	-0.04
KOR	-0.80***	-0.73***	-0.96***	-0.91***
MEX	-0.73***	0.51*	-0.84***	-0.41
MYS	-0.49***	0.63**	-0.51*	-0.80***
PER	0.50***	0.80***	0.71***	0.55*
PHL	-0.42***	-0.32	0.35	-0.58**
POL	0.20	-0.47*	-0.40	0.57**
RUS	-0.44***	-0.92***	-0.36	-0.66**
THA	0.89***	-0.70***	0.65**	0.51*
TUR	-0.46***	-0.79***	-0.33	-0.54*
ZAF	-0.88***	-0.92***	-0.75***	-0.92***
N	60	20	20	20

Note: Country abbreviations are ISO codes. Real effective exchange rate is the JP Morgan broad index, with 2010=100. Increases in REER imply appreciation of the currency. External credit gap is the deviation of external credit from its lagged 10-year moving average. External credit is the sum of stock of liabilities to BIS reporting banks (locational banking statistics) and the outstanding stock of international debt securities (from BIS International Debt Securities Database). *** p<0.01, ** p<0.05, * p<0.10

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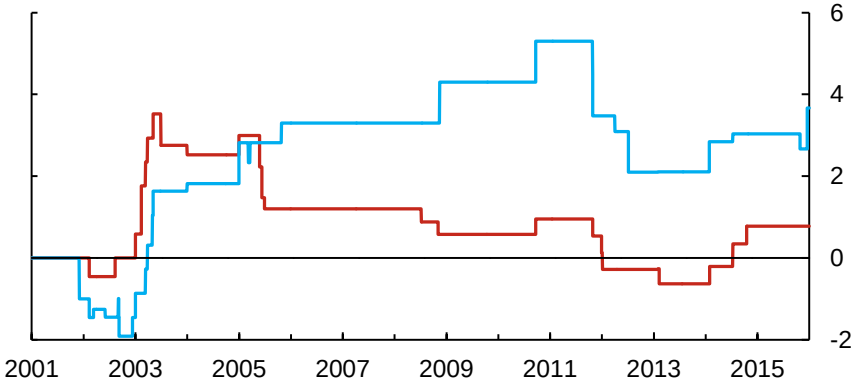
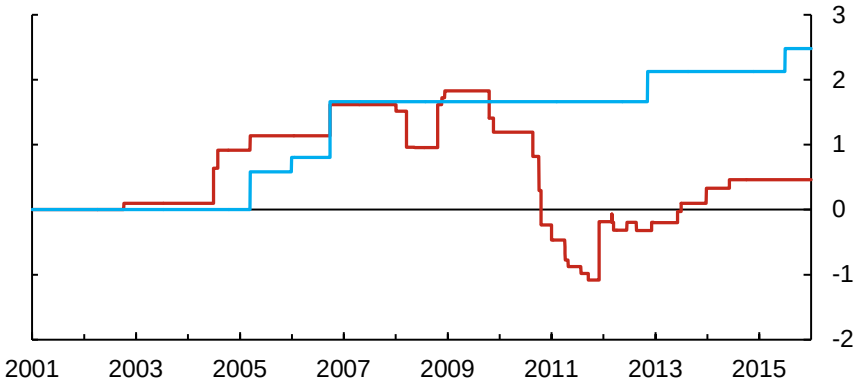
Policy is fairly active in most EMEs in sample

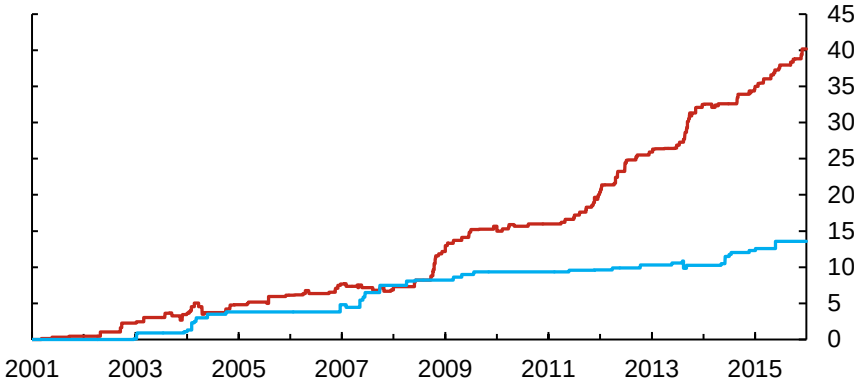
Argentina: Pasricha et al. (2015) Index
Higher values = More openness



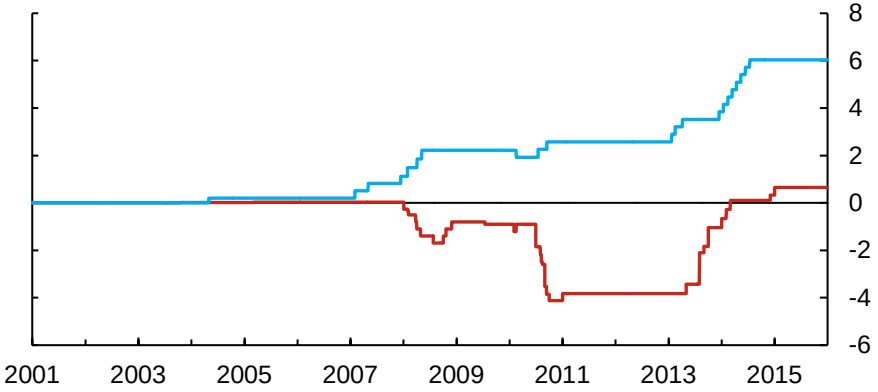
Brazil: Pasricha et al. (2015) Index
Higher values = More openness



India: Pasricha et al. (2015) Index
Higher values = More openness



Peru: Pasricha et al. (2015) Index
Higher values = More openness



Cumulative Number of Weighted Net Inflow Easings

Cumulative Number of Weighted Net Outflow Easings

Source: Author's calculations

Last observation: 31 December 2015

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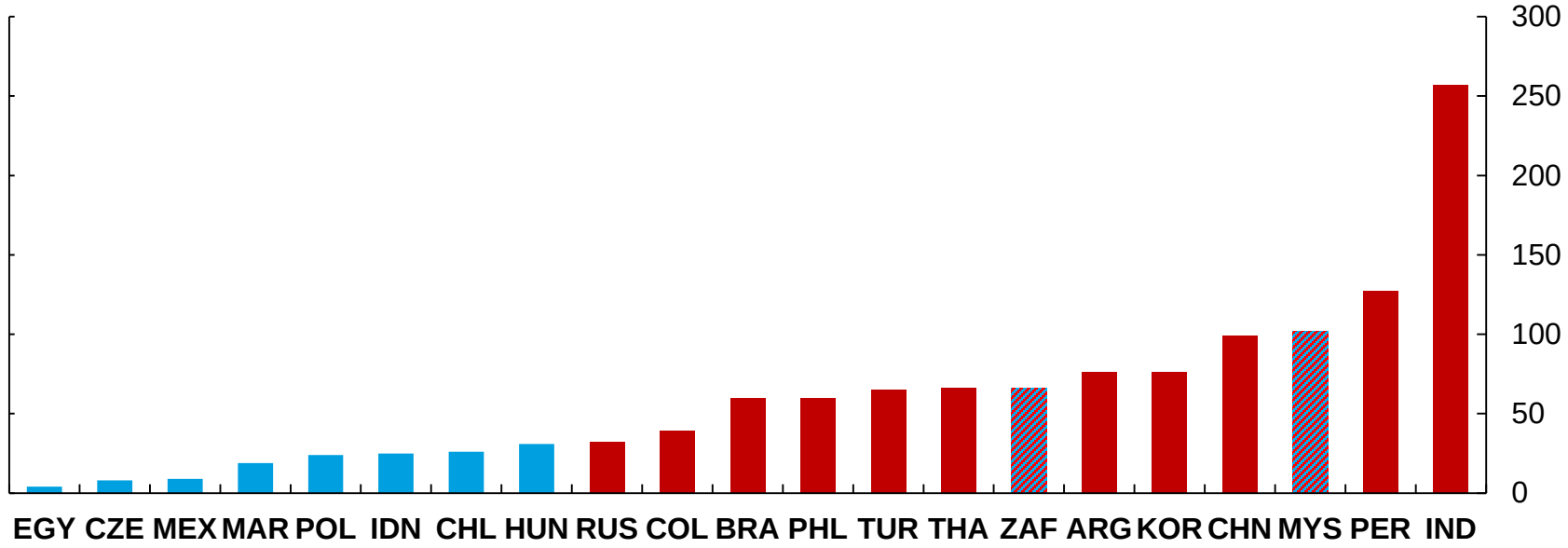
Baseline model includes countries with at least 32 actions (and at least 1 inflow tightening)

Total Number of Policy Actions: 1 Jan 2001 – 31 Dec 2015



Source: Author's calculations

Last observation: 31 December 2015

Note: Blue bars are countries with fewer than 32 actions in sample. Red bars are those with at least 32 actions in sample. Red/Blue shaded bars represent countries with more than 32 actions in sample but no inflow tightening actions.

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Dataset on capital control *policy actions*

- **A policy action:** Easing or tightening of a regulation affecting cross-border transactions
  Example: Brazil's 2% tax on inflows, effective 20 October 2009
- Policy announcements often contain actions on multiple regulatory instruments. We split these and count each action separately.
- A policy action in our dataset has a unique classification along 6 dimensions:
  1. Easing/Tightening
  2. Inflow/Outflow
  3. Capital Control/Currency Based?
  4. Prudential Type?
  5. IIP Category (FDI, Portfolio, Other investment, Derivatives)
  6. Quantitative/Price/Monitoring

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Identifying policy actions at granular level

Example: RBI A.P.(DIR Series) Circular No.43; 1 announcement, 2 actions

	Country	India	India
	Announcement Date	29 May 2008	29 May 2008
	Effective Date	29 May 2008	29 May 2008
	Policy Action	**Indian firms' foreign borrowing** subject to **new all-in-cost ceiling** of 200 bps above LIBOR (increased from 150 bps), and 350 bps for longer maturity loans (increased from 250 bps)	Infrastructure firms allowed to borrow abroad for certain purposes, up to 100 million USD and other firms up to 50 million USD (**enhancement of limits**).
1.	Inflow/Outflow	Inflows	Inflows
2.	Easing/Tightening	Easing (+1)	Easing (+1)
3.	Capital Control/ Currency Based?	Capital Control	Capital Control
4	Prudential Type?	No	No
5.	IIP Category	Other Investment liabilities	Other investment liabilities
6.	Quant/Price/Monitoring	Price-based	Quantitative

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What does the dataset look like?

1.	Country	India	Peru
2.	Policy Change	**Foreign institutional investors** (FIIs) allowed to invest USD 2.6 billion in government securities (raised from USD 2 billion).	Marginal reserve requirement rate on **foreign currency deposits** and on operations indexed to the exchange rate raised from 35% to 45%.
3.	Announcement Date	19-Jan-07	18-Jul-10
4.	Effective Date	19-Jan-07	1-Aug-10
5.	Inflow/Outflow	Inflows	
6.	Easing/Tightening	Easing (+1)	Tightening (-1)
7.	Capital Control/ Currency Based?	Capital Control	Currency Based: Prudential Type
8.	Quant/Price/Monitoring	Quantitative	Price
9.	IIP Category	Portfolio investment liabilities: Debt	Other investment liabilities: Currency and Deposits
10.	Weight (excl. FDI)	0.041	0.485
11.	Source	SEBI Circular No. IMD/FII/25/2007	Verified by CB of Peru; The Free Library; AREAER

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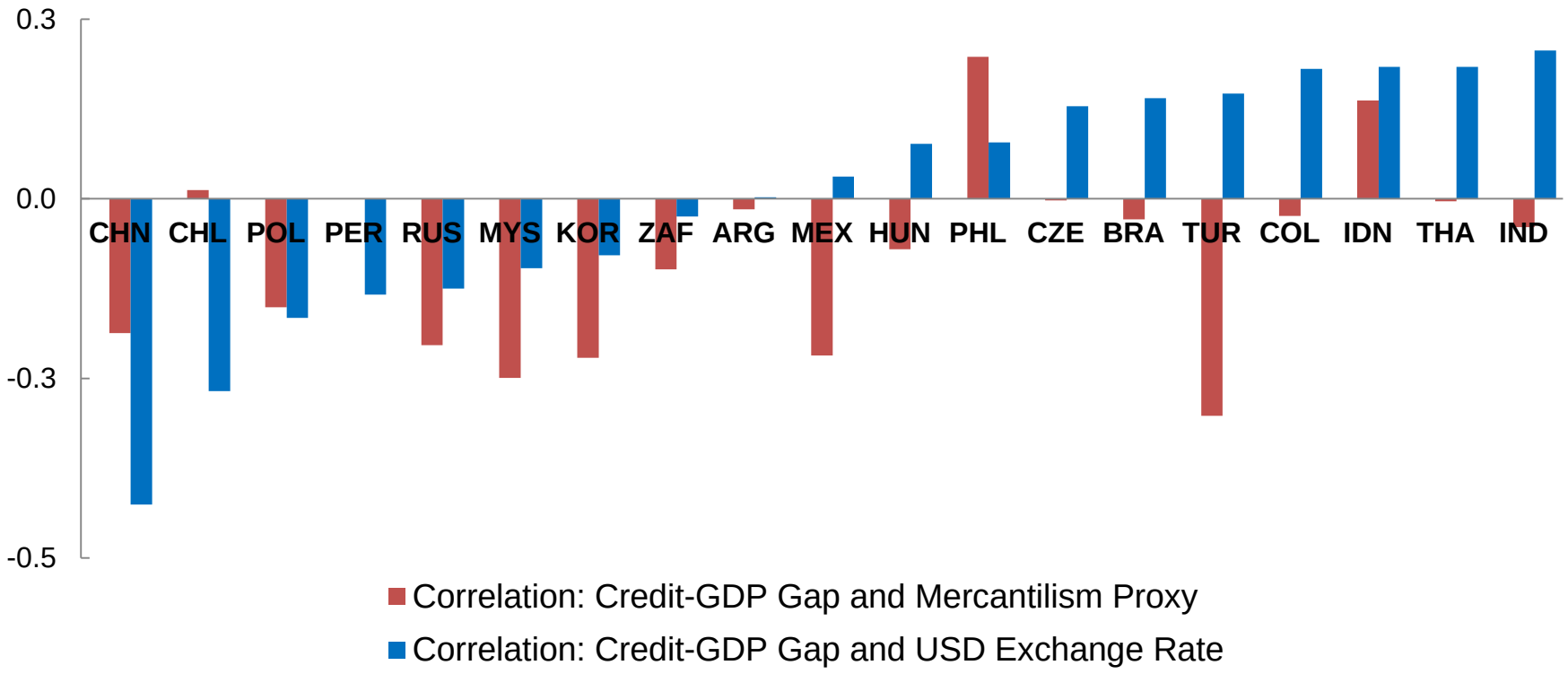
For most countries, credit gap and mercantilism proxy are uncorrelated or negatively correlated



Note: Quarterly data, 2001Q1-2015Q4
Sources: UNCTAD, Datastream, BIS

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Empirical Strategy: Panel Ordered Logit

An ordered logit model assumes that there exists a continuous latent variable (y_t^*) underlying the ordered policy responses that we observe (y_t):

$$y_t = \begin{cases} s_1 & if \quad y_t^* \in (-\infty, c_1] \\ s_2 & if \quad y_t^* \in (c_1, c_2] \\ & \dots \\ s_K & if \quad y_t^* \in (c_{K-1}, \infty) \end{cases}$$

Where $c_1 < c_2 < \cdots < c_k$.

Let w_{t-1} denote the vector of variables observed in the time period prior to the t^{th} change that may have influenced the governments' decision of how much to change policy. Then,

$$y_t^* = w_{t-1}'\beta + \varepsilon_i$$

Where ε_i follows the standard logistic distribution

Sign interpretation of coefficients as usual.

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Model evaluation: ROC and RPS

- The ROC curve evaluates binary classification ability
- Let $\widehat{y*}=$ Linear prediction of the latent variable from a logit model (i.e. with 0-1 dependent variable)
- Predicted outcome = $I(\widehat{y*} - c > 0)$
- ROC curve plots the true positive rate, TP(c) against the false positive rate, FP(c) for all possible thresholds c.
- Models with larger areas under ROC are better
- For ordered capital controls series with 5 possible outcomes, I compute 5 logit models each with dichotomous dependent variable
- Rank Probability Score evaluates predicted probabilities from the ordered model.

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Higher export price ERPT countries are more responsive to appreciation of the currency against trade competitors

	Dependent Variable: Weighted Net NKI Restrictions (non-FDI)				
	(1)	(2)	(3)	(4)	(5)
Mercantilism Proxy (Country-Specific)	1.14**				
Mercantilism Proxy (Country-Specific) * [Dummy, High ERPT]	1.40**				
Mercantilism Proxy (Nominal, 13-wk appr., %)		1.09*			
Mercantilism Proxy (Nominal, 13-wk appr., %) * [Dummy, High ERPT]		1.34*			
Mercantilism Proxy (Real, 13-wk appr., %)			1.08		
Mercantilism Proxy (Real, 13-wk appr., %) * [Dummy, High ERPT]			1.31		
Mercantilism Proxy (Nominal, yoy appr., %)				1.11*	
Mercantilism Proxy (Nominal, yoy appr., %) * [Dummy, High ERPT]				1.32*	
Mercantilism Proxy (Real, yoy appr., %)					1.11
Mercantilism Proxy (Real, yoy appr., %) * [Dummy, High ERPT]					1.22
Dummy, High ERPT	0.59*	0.58	0.61	0.56*	0.61
Bank Credit-GDP gap (%)	1.14	1.15	1.16	1.13	1.16
Observations	8855	8855	8855	8855	8855
Number of Countries	13	13	13	13	13
Pseudo-Log Likelihood	-1922	-1928	-1929	-1928	-1931
Chi-Squared (All coefficients =0)	906.9	260.8	352.4	148.9	224.2
P-value (Chi-Squared)	0	0	0	0	0

Notes: Reported values are proportional odds ratios. Sample period is 2001w1–2015q52. All domestic control variables are one-week lagged. All continuous domestic variables are standardized but centred at 0, i.e., the variables are divided by their standard deviation but not demeaned. Robust standard errors used. *** p<0.01, ** p<0.05, * p<0.10

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Strengthening governance frameworks enhances the macroprudential use of capital controls

	Dependent Variable: Weighted Net Inflow Tightening (non-FDI)				
	(1)	(2)	(3)	(4)	(5)
Mercantilism Proxy (Country-Specific)	1.32***				
Mercantilism Proxy (Nominal, 13-wk appr., %)		1.26***			
Mercantilism Proxy (Real, 13-wk appr., %)			1.25***		
Mercantilism Proxy (Nominal, yoy appr., %)				1.27***	
Mercantilism Proxy (Real, yoy appr., %)					1.25***
Bank Credit-GDP gap (%)	1.19***	1.20***	1.20***	1.16***	1.18***
Bank Credit-GDP gap (%) * [Dummy, Post-Governance]	1.19*	1.19*	1.19*	1.23*	1.24**
Dummy, Post-Governance	0.79	0.77	0.75	0.77	0.73
Observations	7448	7448	7448	7448	7448
Number of Countries	11	11	11	11	11
Pseudo-Log Likelihood	-1710	-1713	-1713	-1713	-1713
Chi-Squared (All coefficients =0)	327.1	556.2	338.6	1182	403.6
P-value (Chi-Squared)	0	0	0	0	0

Notes: Reported values are proportional odds ratios. Sample period is 2001w1–2015q52. All domestic control variables are one-week lagged. All continuous domestic variables are standardized but centred at 0, i.e., the variables are divided by their standard deviation but not demeaned. Robust standard errors used. *** p<0.01, ** p<0.05, * p<0.10

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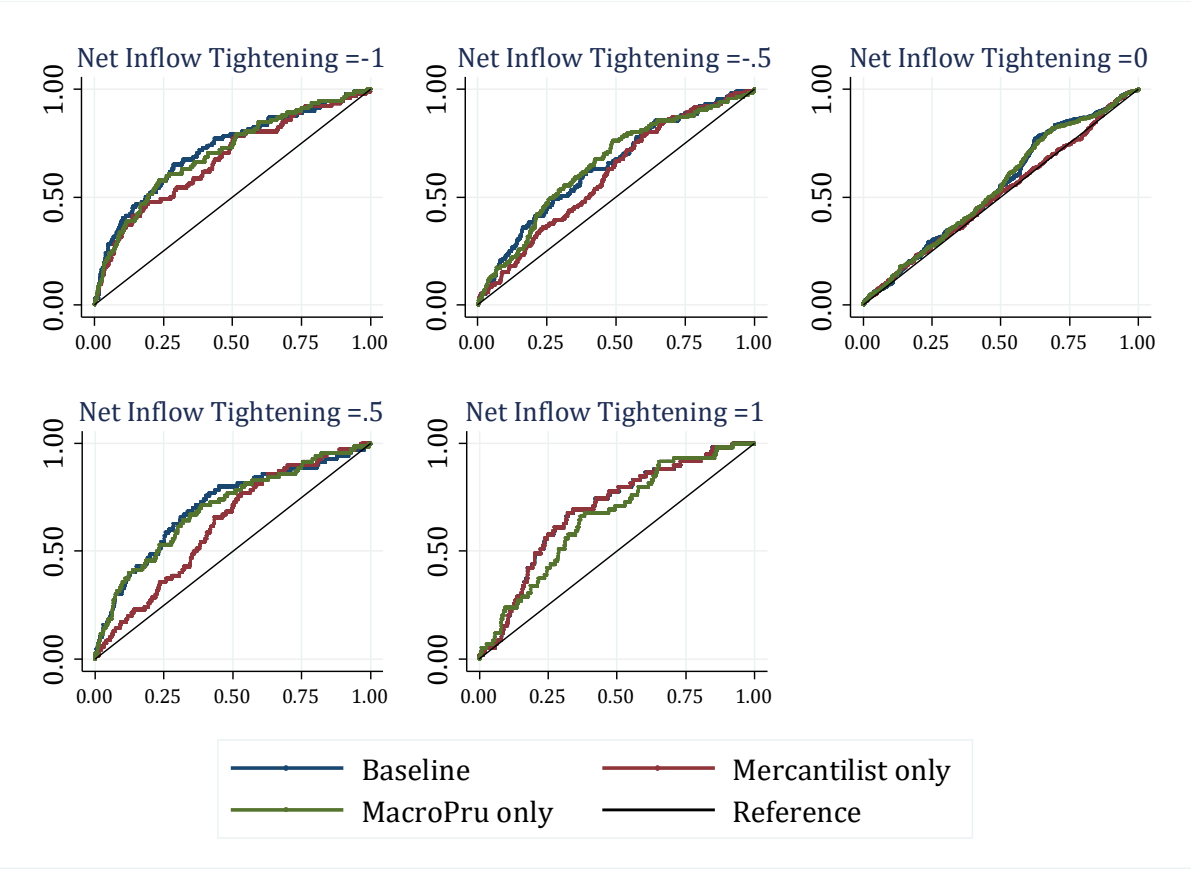
Comparing models using ROC: Baseline model better than Mercantilist only and Macro-Prudential only models



Notes: The graphs compare the Receiver Operating Characteristic (ROC) curves for baseline models, with country-specific mercantilist proxy and domestic credit gap along with other domestic policy controls, against those with Mercantilism only or Macro-Prudential motivation only models. Each model is panel logit, with dependent variable re-defined to be a dichotomous variable. For example, the top left panel the dependent variable takes value 1 when the ordered net inflow tightening variable =-1, and 0 otherwise.

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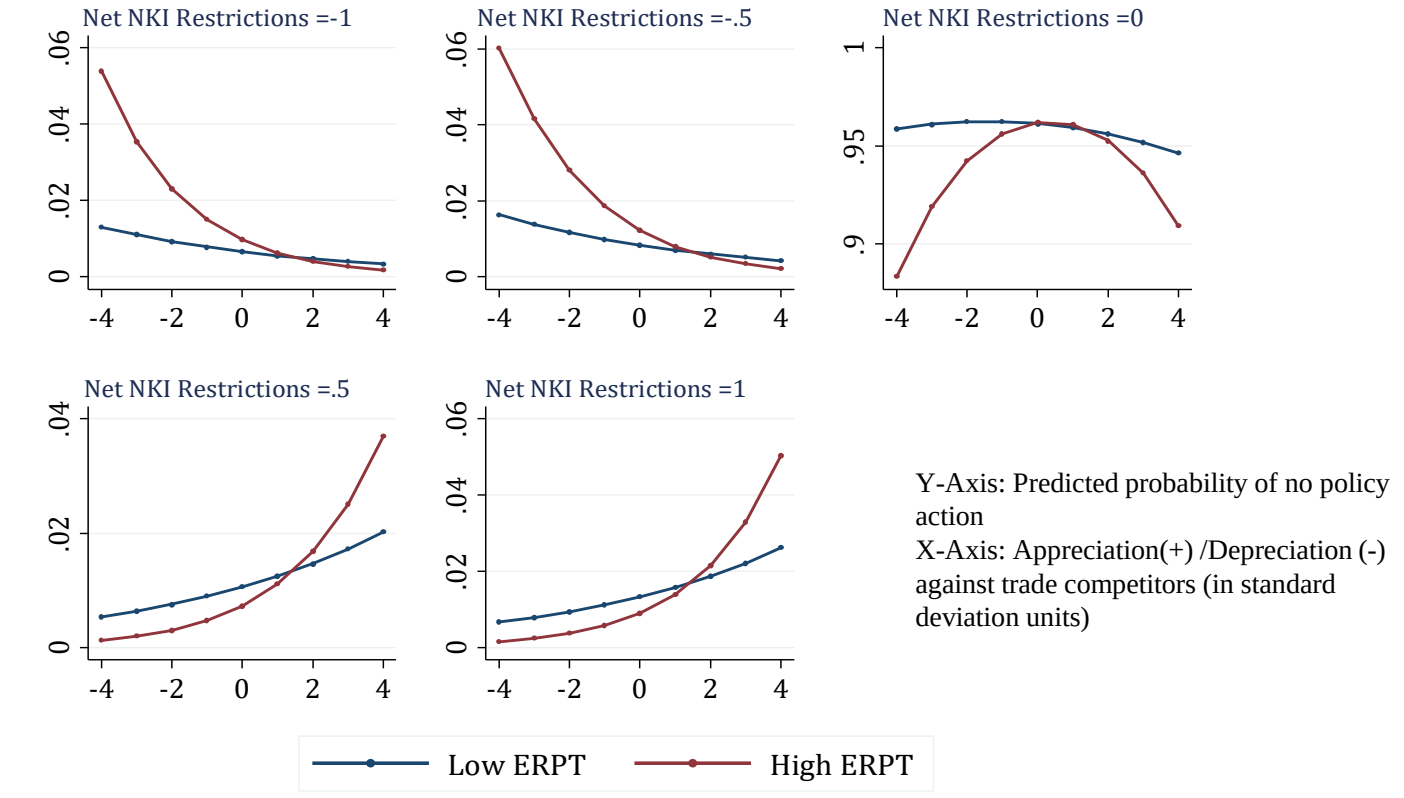
Countries with high ERPT respond more to appreciation against trade competitors



Y-Axis: Predicted probability of no policy action
X-Axis: Appreciation(+) /Depreciation (-) against trade competitors (in standard deviation units)

Notes: The graphs plot the predicted probabilities of each outcome (of net NKI restricting actions) against values of country-specific mercantilism proxy (measured in standard deviation units).

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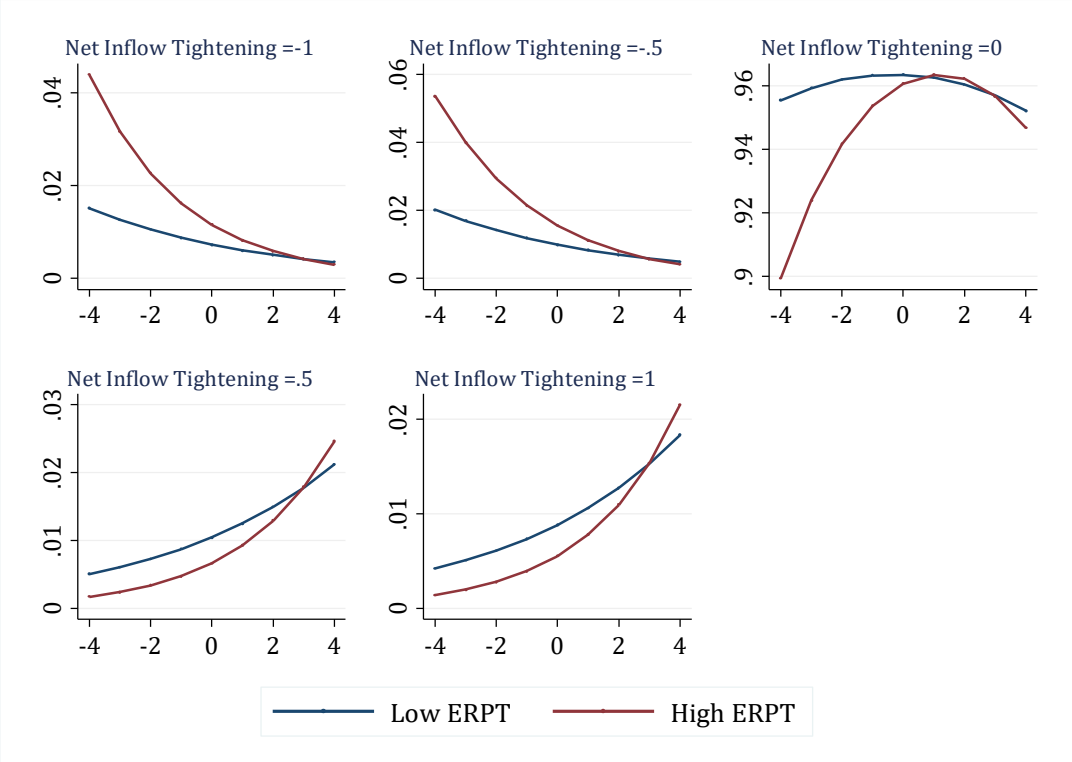
Countries with high ERPT are more responsive to appreciation against trade competitors



Notes: The graphs plot the predicted probabilities of each outcome (of net inflow tightening) against values of country-specific mercantilism proxy (measured in standard deviation units).

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Main developments in governance arrangements for macroprudential policy

Brazil	On 30 August 2010, a sub-committee to monitor the stability of the national financial system (SUMEF) was established.
Chile	Financial Stability Council (CEF), a council of regulators, was established by presidential decree in April 2011. It was formalized in 2014 by law.
China	Financial Crisis Response Group (FCRG), a council of regulators, first convened in 2008 and formally established in August 2013.
India	Financial Stability and Development Council was established in 2010 to oversee macroprudential regulation and facilitate regulatory cooperation.
Indonesia	Bank Indonesia (BI) was given the mandate to exercise macroprudential supervision by Act No.21 of 22 Nov 2011 concerning the Financial Services Authority (OJK).
Korea	Macroeconomic financial Meeting (MEM), a deputy-level council of regulators meeting informally since July 2008, was formalized in 2012.
Malaysia	Central Bank of Malaysia Act 2009 (enacted 19 August 2009) strengthened the BNM's financial stability objective.
Mexico	Council of financial system Stability (CESF) established on 29 July 2010. It is council of regulators, presided by the Minister of Finance.
Peru	Voluntary consultative committee of regulators established in 2008.
Philippines	In early 2011, BSP created an internal Financial Stability Committee. Further, Financial Stability Coordination Council, a council of regulators, launched on 2 March 2014.
Russia	Financial Stability Council established in July 2013. In the same month, Central Bank of Russia was given an explicit financial stability mandate.
South Africa	A roundtable of regulators was formed in 2008 to improve regulatory coordination.
Thailand	The Bank of Thailand Act B.R. 2485 (1942) was amended in 2008 to formalise the adoption of a macro-prudential approach. As a result, the financial stability committee was set up.
Turkey	The Financial Stability Committee, a council of regulators, was established by the Decree in Power of Law No: 637 dated 8 June 2011.