

Discussion of Julien Bengui & Javier Bianchi

“Capital flow management when
capital controls leak”

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Key points of paper

- Neat model with novel question: role of leakages for prudential controls
- Focus on policy optimality for prudential regulation in the presence of leakages
- Presence of trade-off for social planner: between inefficiency from pecuniary externality and creation of allocative inefficiency
- Results not trivial: why prudential controls can still be beneficial when leakages occur
- Comments: how realistic are assumptions? Can we broaden the analysis / relax some assumptions?

Trade-off R – U agents: substitutability

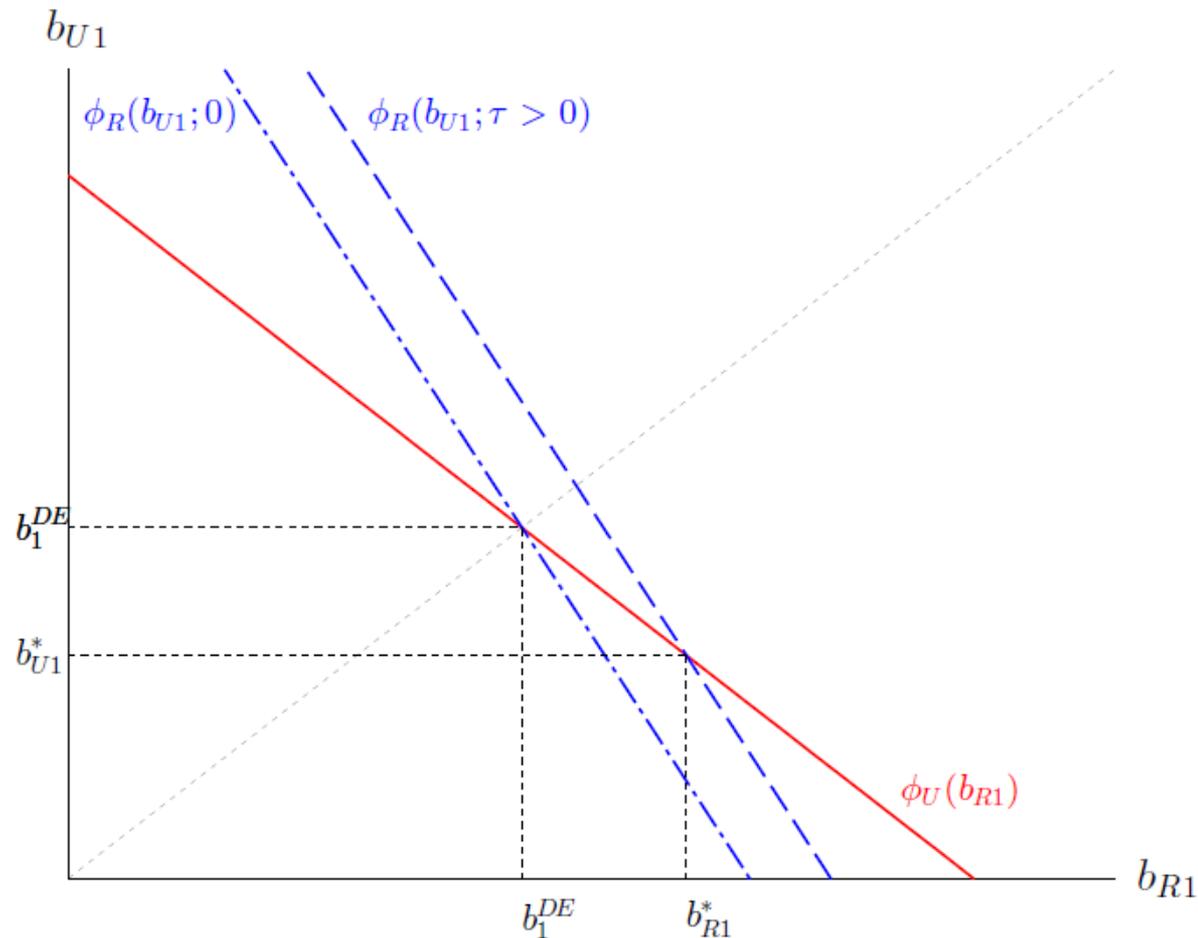


Figure 1: Best response functions of regulated and unregulated agents in equilibrium with exogenous tax ($0 < \gamma < 1$).

“Optimality” for social planner

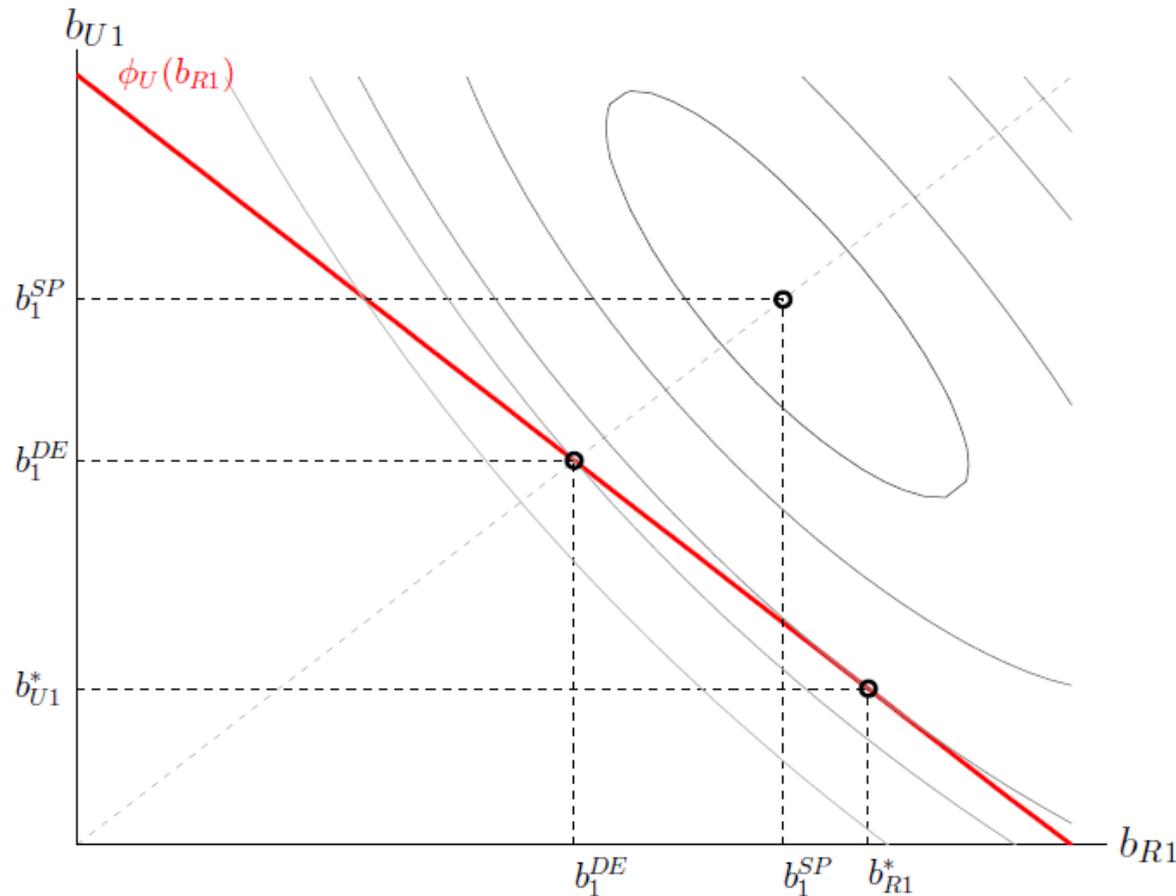


Figure 3: Borrowing choices in equilibrium with optimal capital controls, with planner's iso-utility curves.

Very specific case – strong assumptions

I. Assumption of substitutability of R – U agents

- What empirical evidence?
- Case of IOF tax in Brazil (Forbes, Fratzscher, Kostka, Straub 2012) : evidence for complementarity
- A. signalling – Bartolini and Drazen (AER, 1997)
- B. impact of control on return (expectations) via growth, stability, etc.

Brazil: Complementarity equity-bond

	Equity Funds		Debt Funds		Global Equity Funds	
	First-difference	Log-difference	First-difference	Log-difference	First-difference	Log-difference
<i>Control</i> ^{Brazil}	-0.050** (0.020)	-0.134** (0.056)	-0.033*** (0.004)	-0.289*** (0.077)	-0.014*** (0.003)	-0.987*** (0.087)
<i>Control</i> ^{Ex-Brazil}	0.007 (0.009)	-0.057 (0.160)	-0.001 (0.008)	0.263 (0.469)	-0.003 (0.004)	-0.394 (0.365)
ω ^{benchmark}	0.813*** (0.018)	0.984*** (0.036)	0.216*** (0.072)	0.284*** (0.094)	0.416*** (0.040)	0.564*** (0.091)
<i>Other Macro Controls</i>	Y	Y	Y	Y	Y	Y
<i>Observations</i>	1,485	1,485	1,060	1,060	734	734
<i>R-squared</i>	0.724	0.489	0.033	0.029	0.353	0.299

* is significant at the 1% level, ** at the 5% level, *** at the 1% level

Investor Perspective (Forbes et al. 2012)

- **Interviews** with 15 groups of investors (1-5 people/group)
 - Each fund had some international exposure
- **General reaction to capital controls?**
 - One of many costs of doing business (costs)
 - Can make country more attractive (benefits)
 - Indicates anti-investor bias, increased policy uncertainty, that will deter investment (signaling, expectations)
- **Actual response to specific controls?**
 - Composition: equity vs. Bond funds
 - Geography: global vs. EME funds
 - Lagged adjustment for various reasons

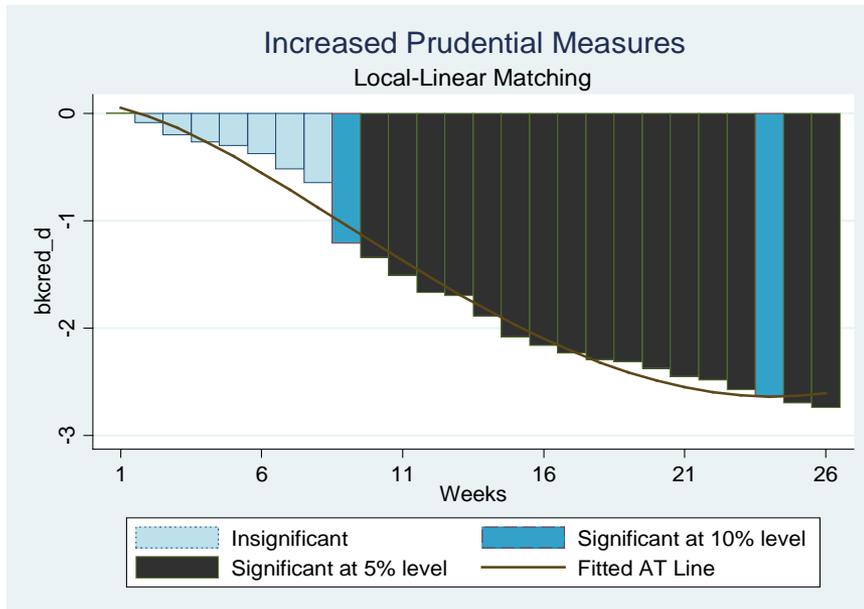
Very specific case – strong assumptions

2. Assumption about risk-taking of R vs U agents

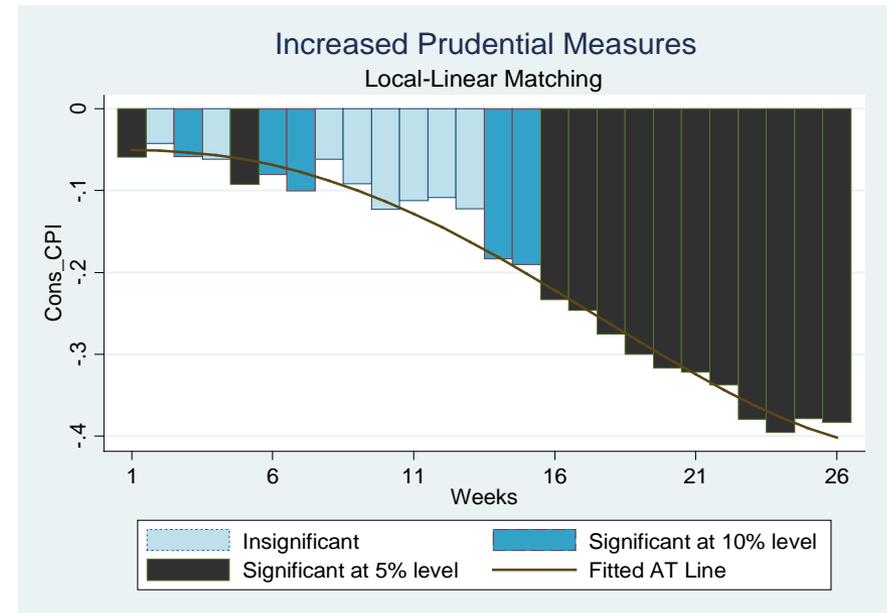
- Regulated vs unregulated not a random choice: what difference?
- Crucial for finding of social planner's trade-off between inefficiency from externality and allocative inefficiency
- If social planner an target “risky” lending and/or agents: no trade-off

Increased Macprudential Measures Impact on Financial Fragility

% Change in Bank Leverage

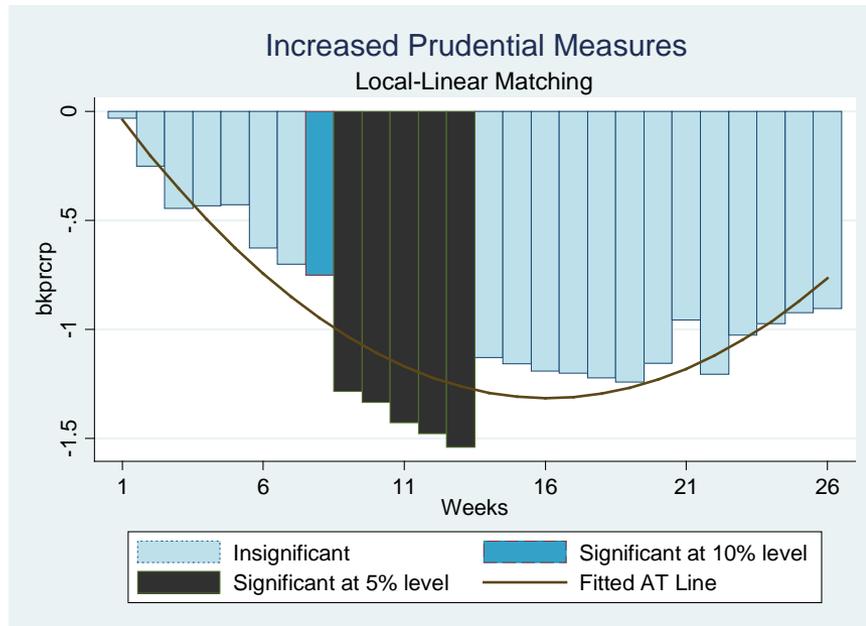


Change in Expected Inflation

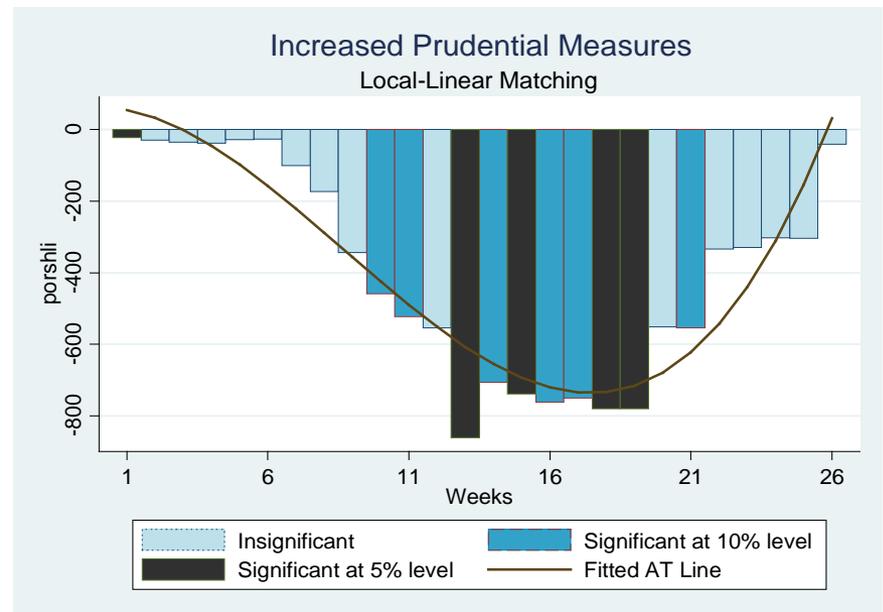


Increased Macprudential Measures Impact on Financial Fragility

% Change in Bank Credit



Change in Exposure to Portfolio Liabilities



Very specific case – strong assumptions

3. Assumption, goal of controls: crisis prevention

- Goals often different from capital flows, e.g. FX valuation
- i.e. controls not to reduce pecuniary externality of R & U agents
- ...but policy-maker may have allocative goals, e.g. shift from importers to exporters via weaker exchange rate
- trade-off of paper may in reality be the reverse!

LOGIT RESULTS	Increased Inflow Controls	Decreased Outflow Controls	Increased Macropprudential
Real exchange rate (%ch)	11.222***	6.006**	1.317
Portfolio flows (6 mo, %ch)	0.001	0.004	0.000
Consensus CPI, 52-wk	0.207*	-0.148	0.337***
Private credit / GDP (%ch)	0.652	1.157	4.501**
VIX	0.052	-0.032	-0.045
TED Spread	-2.381	1.077	-0.646
Commodity prices (%ch)	-0.334	-2.536*	0.217
Interest rate vs. US (ch)	-0.037	-0.031	0.042
FX Reserves/GDP (% ch)	-0.663	-0.846	-0.817
Floating ER dummy	-0.349	0.488	1.615***
Capital account openness	-0.097	-1.008***	0.579***
Stock market cap. (% GDP)	-0.012*	0.006**	-0.000
Log GDP per capita	0.224	0.802**	0.052
Legal compliance	-17.397	105.058**	79.502***
Legal compliance ²	3.100	-25.638**	-18.826***
<i>Observations</i>	4,953	4,708	4,394
<i>Pseudo R²</i>	0.192	0.222	0.155

Source: Forbes, Fratzscher and Straub, 2013.

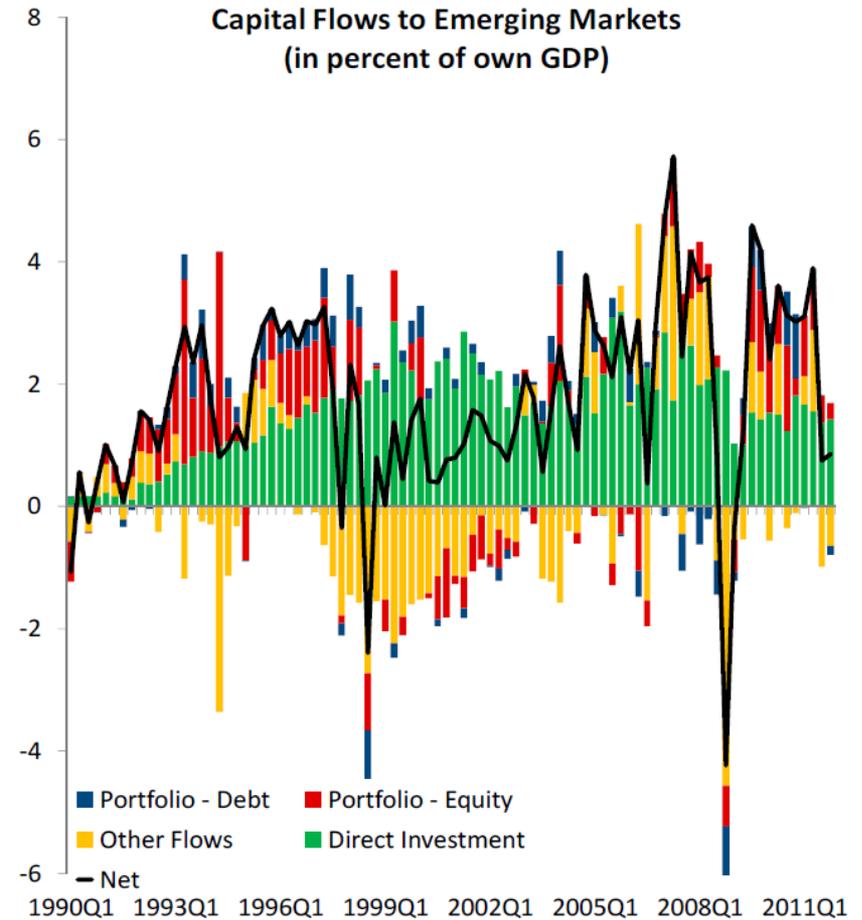
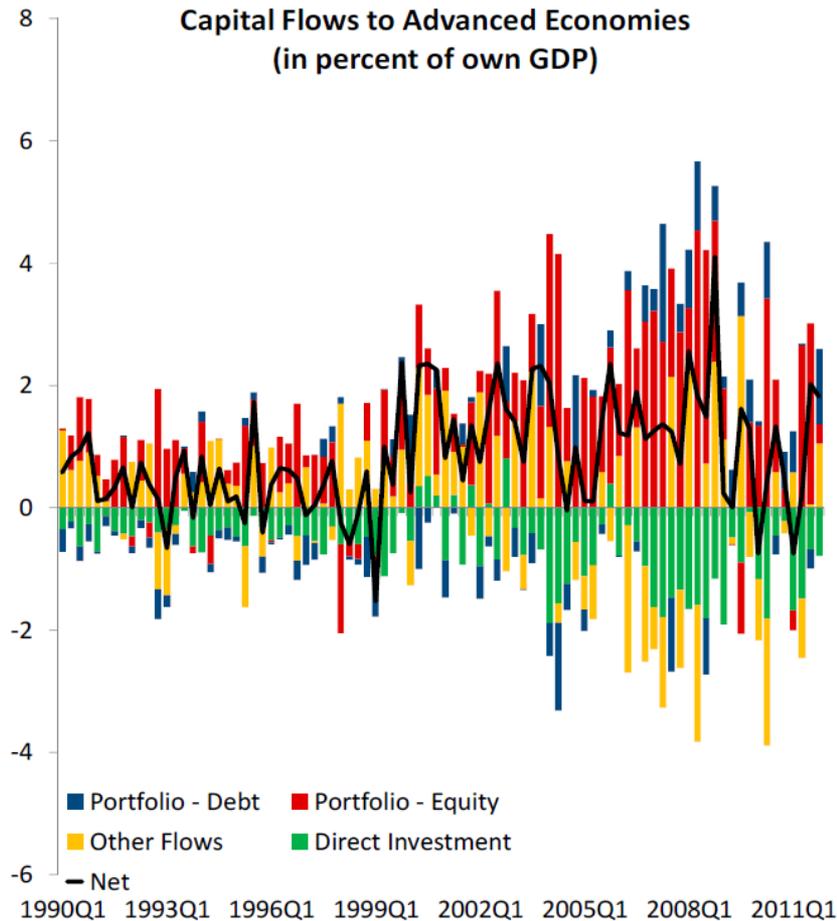
Matching Tests: Controls on Inflows	Mean: Treated Group (μ_T)	Mean: Unmatched Control (μ_C)	t-Statistics ($H_0: \mu_T = \mu_C$)	Local-linear	
				Mean Matched Control (μ_C)	t-stat ($H_0: \mu_T = \mu_C$)
Real ER	0.090	0.008	4.21***	0.099	-0.33
Portfolio flows	0.401	-2.541	0.21	1.955	-0.58
Consensus CPI	7.156	4.158	4.78***	6.115	1.03
Credit growth	0.044	0.026	0.99	0.012	1.12
VIX	25.752	26.482	-0.39	27.791	-0.82
TED	0.268	0.351	-1.39	0.271	-0.08
Commodities	0.068	-0.007	1.30	0.058	0.18
Interest rate - US	-0.523	-0.149	-0.56	-1.006	0.22
FX Reserv./GDP	0.080	0.084	-0.06	0.134	-0.73
Floating ER	0.667	0.744	-0.81	0.714	-0.33
CA openness	0.073	1.016	-2.97***	0.234	-0.51
Stock mktcap.	43.231	84.666	-1.98**	48.162	-0.40
GDP per capita	8.443	9.295	-3.26***	8.535	-0.31
Legal complian.	2.046	2.229	-3.82***	2.029	0.32
Legal comp. ²	4.216	5.018	-3.76***	4.144	0.33

Source: Forbes, Fratzscher and Straub, 2013.

4. **Assumption: capital inflows are detrimental**

- Not always true, i.e. capital inflows may reflect (strong) domestic fundamentals
- Determinants matter: push factors vs. pull factors
- Some evidence...

AE capital flows equally large and volatile



Source: IFS

Push versus pull: Drivers of capital flows

- Most of EME capital flows during 2008-09 crisis explained by push factors, but post-crisis by pull factors (esp. Asia, LatAm)

	Push factors			Pull factors		
	Pre-crisis	Crisis	Post-crisis	Pre-crisis	Crisis	Post-crisis

% of total capital flows explained by factors

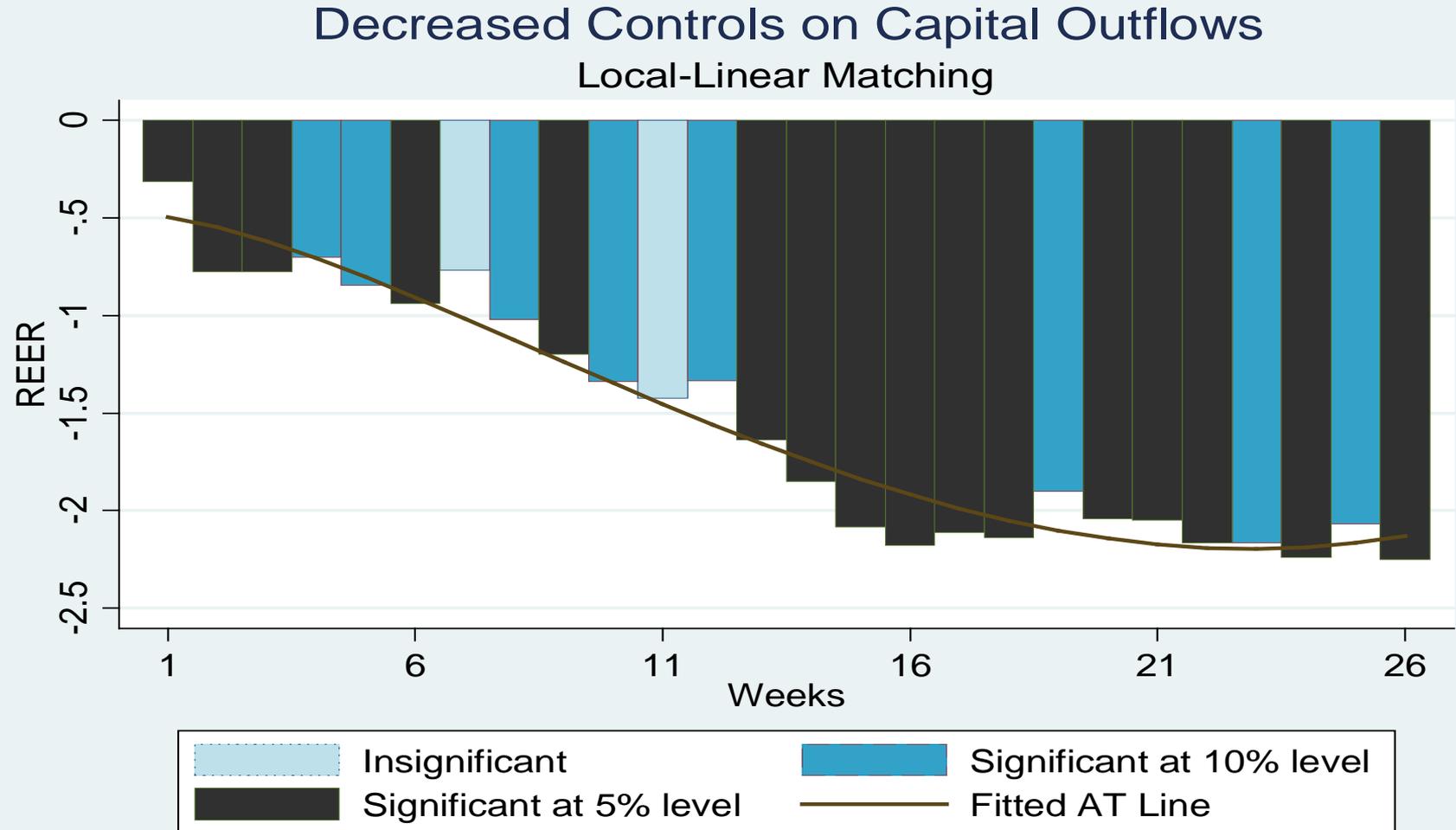
ALL countries	65.4	72.8	45.0	34.6	27.2	55.0
EM Asia	48.3	84.9	18.1	51.7	15.1	81.9
EM Europe	86.6	93.2	80.3	13.4	6.8	19.7
Latin America	48.8	150.0	36.9	51.2	-50.0	63.1
Africa/Middle East	109.3	104.4	54.8	-9.3	-4.4	45.2
Advanced						
Europe	90.8	23.2	84.2	9.2	76.8	15.8
Other advanced	76.1	80.5	58.8	23.9	19.5	41.2

“Optimality” of prudential controls

- **Pecking order**
 - Macroeconomic -- Monetary, fiscal, structural policies
 - Prudential -- Macro- and microprudential
 - Financial market development & depth
 - Institutional quality and environment
 - “flight-to-safety” phenomenon makes capital flows to EMEs often highly pro-cyclical and hence detrimental
 - Link to quality of institutions and country risk
 - Capital controls and FX policy interventions
- **Variety of controls**
 - Change in controls on outflows may be more effective option

Impact on Real Exchange Rate

Decreased Controls on Capital Outflows



Summing up

- Neat model with novel question: role of leakages
- Very specific case: can we relax some assumptions?
 - Substitutability
 - Heterogeneity across agents - trade-off for social planner may be different
- Broaden policy analysis: comparison to other policy options