Why do emerging markets liberalize capital outflows controls?*

Fiscal versus net capital flows concerns

[Preliminary work - Please do not cite]

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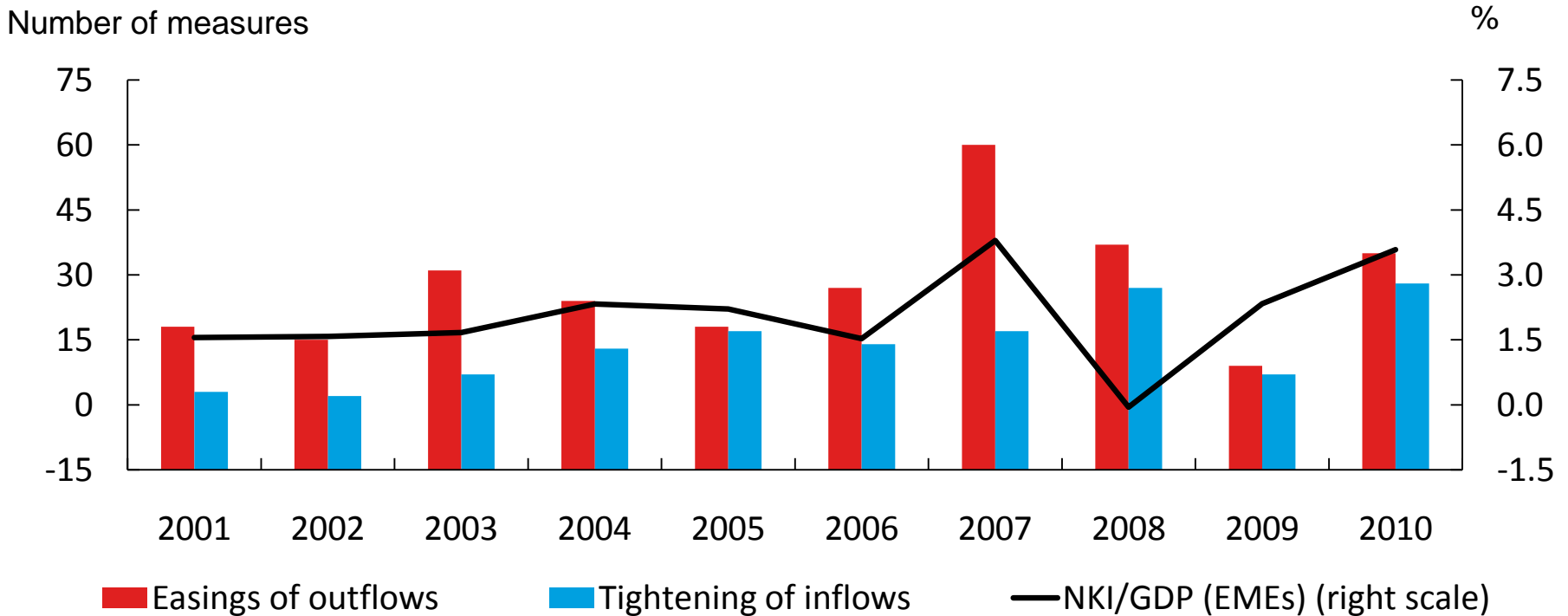
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* The views in the presentation are those of the authors. No responsibility for them should be attributed to the Bank of Canada or the NBER.

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Background

- Debate on managing capital inflows has focussed on reducing inflows:

  - Should EMEs tighten inflows controls in the face of a surge?

  - Are inflows controls effective?

- Net Capital Inflows (NKI) = Inflows – Outflows

  - EMEs can reduce NKI by liberalizing outflows.

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Broad majority of NKI reducing measures pre-crisis were outflows liberalizations

Number of measures   %

Chart axes — left scale: 75, 60, 45, 30, 15, 0, -15; right scale: 7.5, 6.0, 4.5, 3.0, 1.5, 0.0, -1.5

Years: 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010

Legend:
■ Easings of outflows   ■ Tightening of inflows   — NKI/GDP (EMEs) (right scale)

Note: Net capital inflows/GDP is the unweighted sum of NKI to the 18 EMEs in sample divided by the unweighted sum of their nominal GDPs.

Source: Pasricha (2012)

Last observation: 2010

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Liberalizing outflows controls involves trade-offs between NKI and fiscal concerns

NKI Concerns:

- Liberalizing outflows can mitigate size of NKI waves.

Fiscal Concerns:

- Outflows controls part of "Financial Repression" (interest rate ceilings, high reserves requirements etc.) that reduce government's borrowing costs.

- EME average Repression Revenues in 1970-80's = 9% of total government revenues (Giovannini and de Melo, 1993)

2 Questions

1. How much fiscal revenue do existing controls generate?

2. What induces EMEs to liberalize outflow controls?

Summary of Results

- On average EMEs did not earn repression revenues in 2000's, despite existing controls on outflows.

- Outflows policy responded to NKI pressure, rather than fiscal concerns.
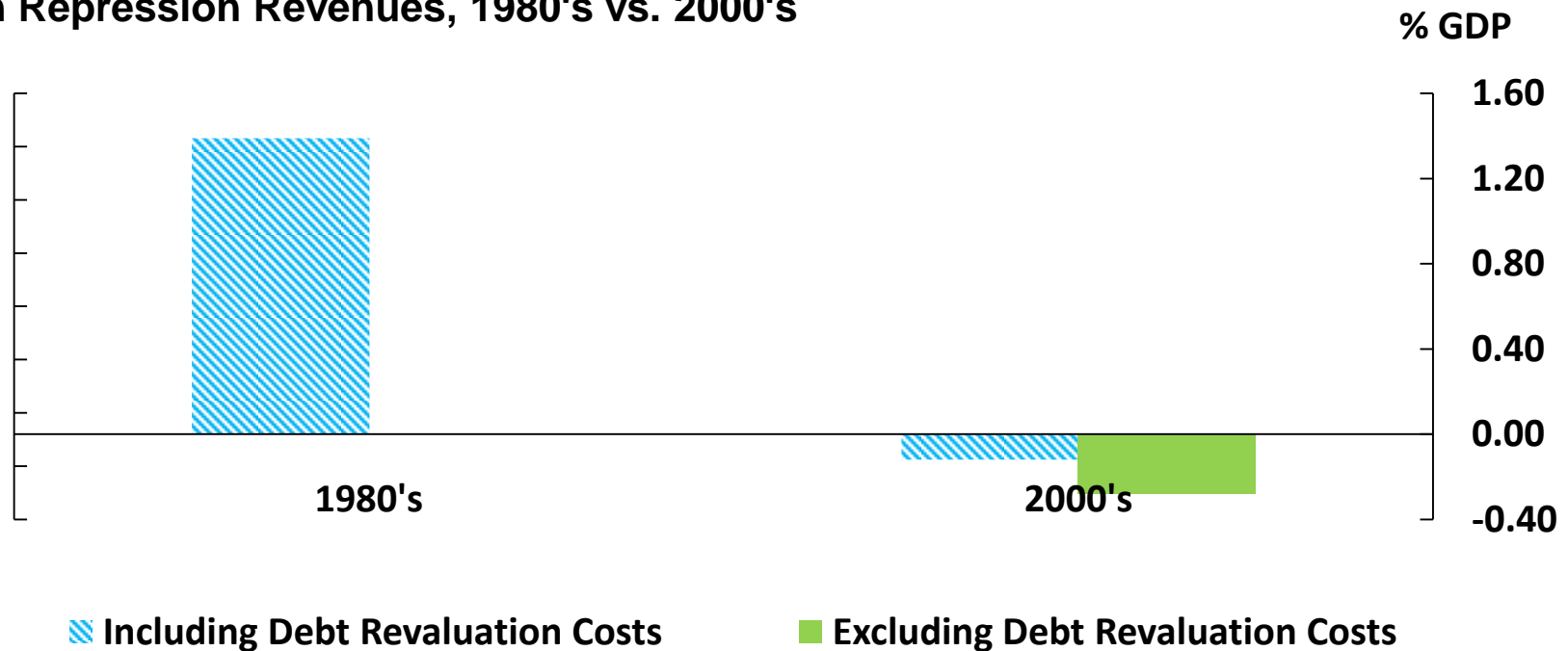
Measuring Repression Revenues

- Capture savings from paying non-market interest on domestic debt

- Need proxy for interest rate in absence of repression

- We follow Giovannini and de Melo (1993) and use effective interest rate on external debt raised from private creditors

Repression Revenues = (Effective i - i) Domestic Debt*

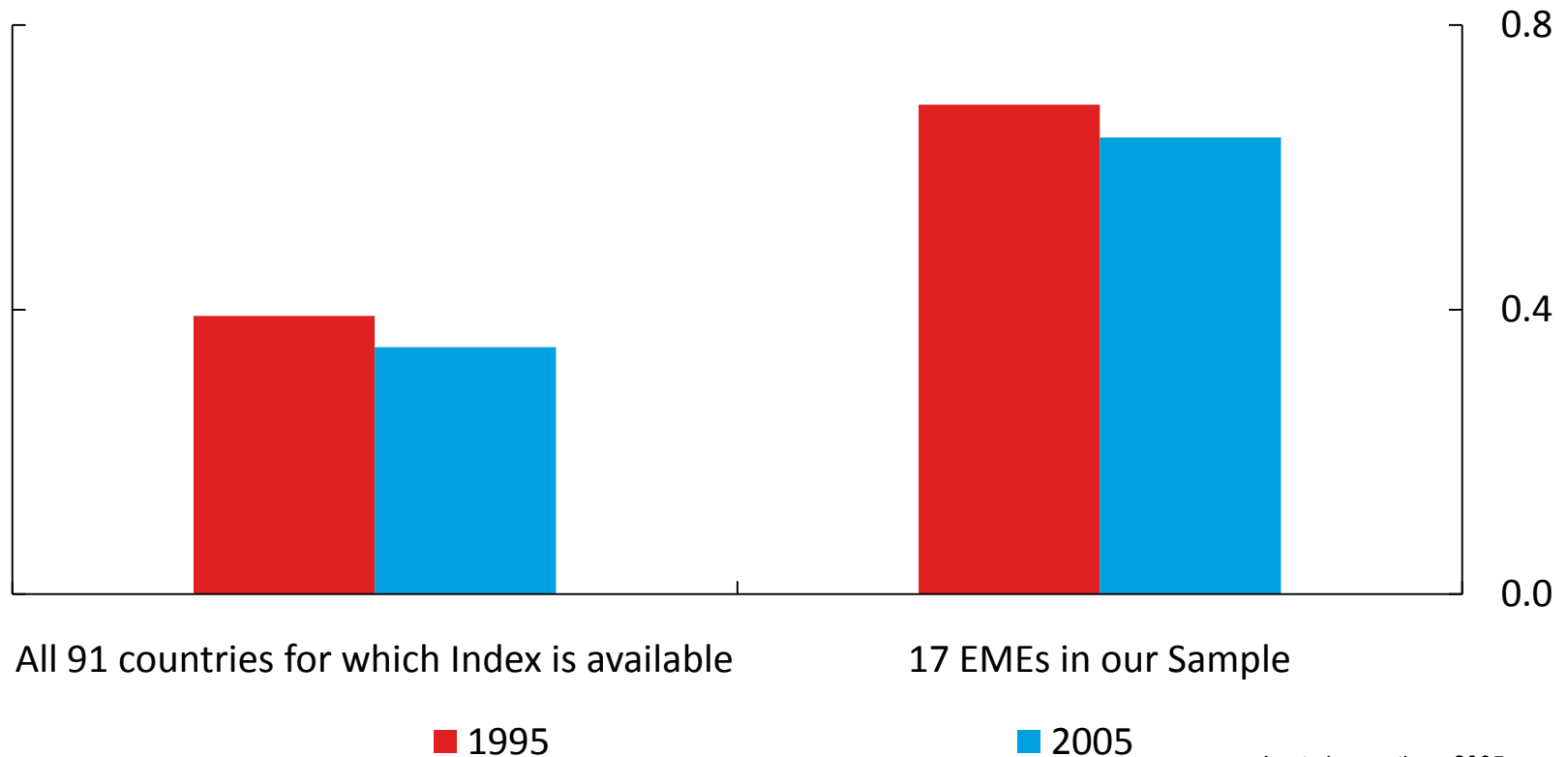# Result 1: EMEs did not earn revenues from repression on average in 2000's

Mean Repression Revenues, 1980's vs. 2000's

Notes: The 1980's mean is from Giovannini and de Melo (1993) and covers the countries in their sample that overlap with ours. The averages for 2000's include repression revenues for Argenitna in 2001-02. The 1980's estimates are infact over the years between 1974-87 over which the Giovannini and de Melo estimates are available.

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Repression Revenues declined despite remaining restrictions on outflows...

Schindler's Index of capital outflow restrictions

All 91 countries for which Index is available

17 EMEs in our Sample

■ 1995   ■ 2005

Source: Schindler (2010)

Last observation: 2005

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1. How much fiscal revenue do existing outflow controls generate?

- On average EMEs did not earn repression revenues in 2000's, despite existing controls on outflows.

- Caveats:
  - Seigniorage revenues continue to be large
  - External interest rate may be underestimating the market rate in absence of repression
  - Repression revenues estimate does not include revenues accruing to banks/corporations.

2 Questions

1. How much fiscal revenue do existing outflow controls generate?

2. What induces EMEs to liberalize outflow controls?

Measuring Outflows Policy

- Data: Each change in a capital account regulation: "Policy changes/announcements"

- 18 major EMEs

- 2001- 2010

- Data source: Pasricha (2012)
  - IMF's AREAER + central bank websites + news sources

Measuring Outflows Policy

- Classify changes as:

  Inflows/Outflows; Easing/Tightenings

- Often more than 1 policy change in a quarter
  - sometimes ease and tighten in same quarter

- Dependent variable is:

  number of net easings of outflows$_{it}$

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Methodology

$$\text{Number of Net Easings}_{it} = \alpha + \beta X_{it-1} + u_t + v_i + \varepsilon_{it}$$

- OLS, with time and country FE, robust standard errors

- All explanatory variables (except dummies) normalized

- Tested a number of indicators for each hypothesis (next slide)

- Sequential Regressions:

  - For each hypothesis, each indicator tested individually and in groups

  - All indicators significant at least 20% level used in joint tests in second stage

Indicators of NKI concerns

Hypothesis	Example of Indicators (Expected Sign)
Overheating concerns	ΔNKI (+) NKI/GDP (+) Inflation (+) Credit growth (+) GDP growth (+)
FX valuation	Exchange Market Pressure (EMP) (-) REER appreciation (+) Δ FX reserves: (+)
Financial stability concerns	Δ Stock prices (+) Surge (in gross and net inflows) (+) Inflation Crisis and Severe Inflation Crisis (-)
Concerns about macroeconomic volatility	Volatilities (+/-) : 3-yr std dev of NKI, GDP growth, REER, Equity Returns

Indicators of Fiscal Concerns

1. Revenues from Repression/GDP (-)

2. Fiscal space (+)

   (i) Fiscal Balance/Tax Revenues: (+)
   (ii) Government Debt/Tax Revenues: (-)

3. Liquidation Tax (-)
   Negative of real interest rate on domestic government debt

4. Real deposit rate on bank deposits (+)

5. Banking Sector Net Lending to Govt*Inflation (-)

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Result 2 (full sample): Outflows controls responded to NKI concerns, not to fiscal concerns

Dependent Variable: Net Easings of Outflows			
	1	2	3
Fiscal Balance/Tax Revenues	0.11	0.05	0.03
Repression Revenues/GDP	0.11	0.17	0.21
NKI stop	-0.5	-0.49*	-0.52
REER volatility	0.15*	0.16**	0.13
Inflation	0.44***	0.45***	0.42***
NKI Volatility	-0.25*	-0.30**	-0.32*
EMP	-0.11**		-0.10*
D. Reserves/GDP		0.09*	0.07
Observations	437	421	416
R-squared	0.17	0.17	0.18
Number of ccode	14	14	13
Time FE	YES	YES	YES

All explanatory variables are lagged 1 quarter and normalized. Only significant variables shown. 17

www *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Exchange Market Pressure: Pre-and Post-Easing of Outflows
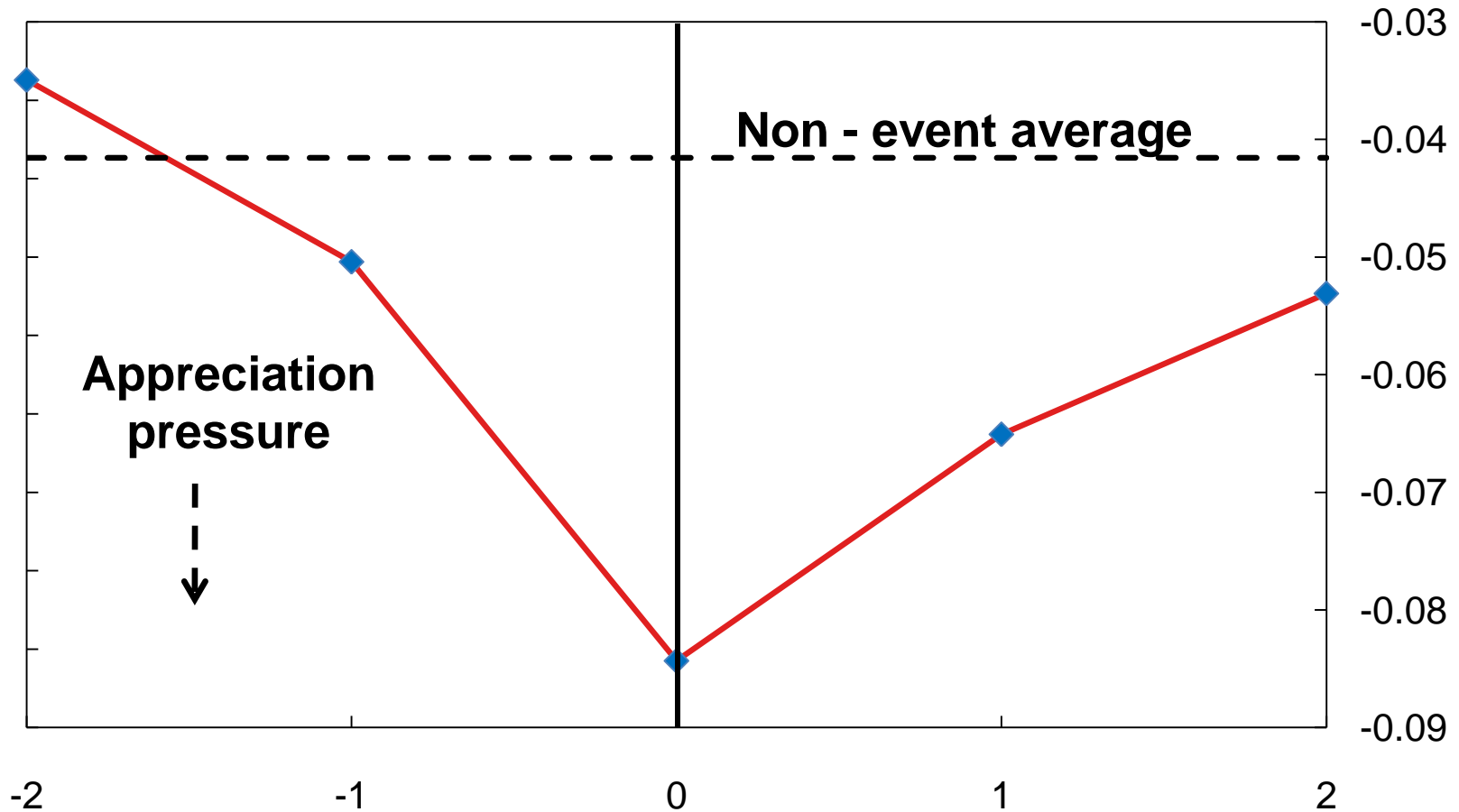
Note: t=0 is the event date. Event sequences exclude quarters that overlapped with net tightening of outflows events. Non-event averages are averages over quarters that were neither 3 quarters before or after easing events, nor classified as such events.

Freely Floating Exchange Rate Regimes were more open, less activist and had lower Repression Revenues...
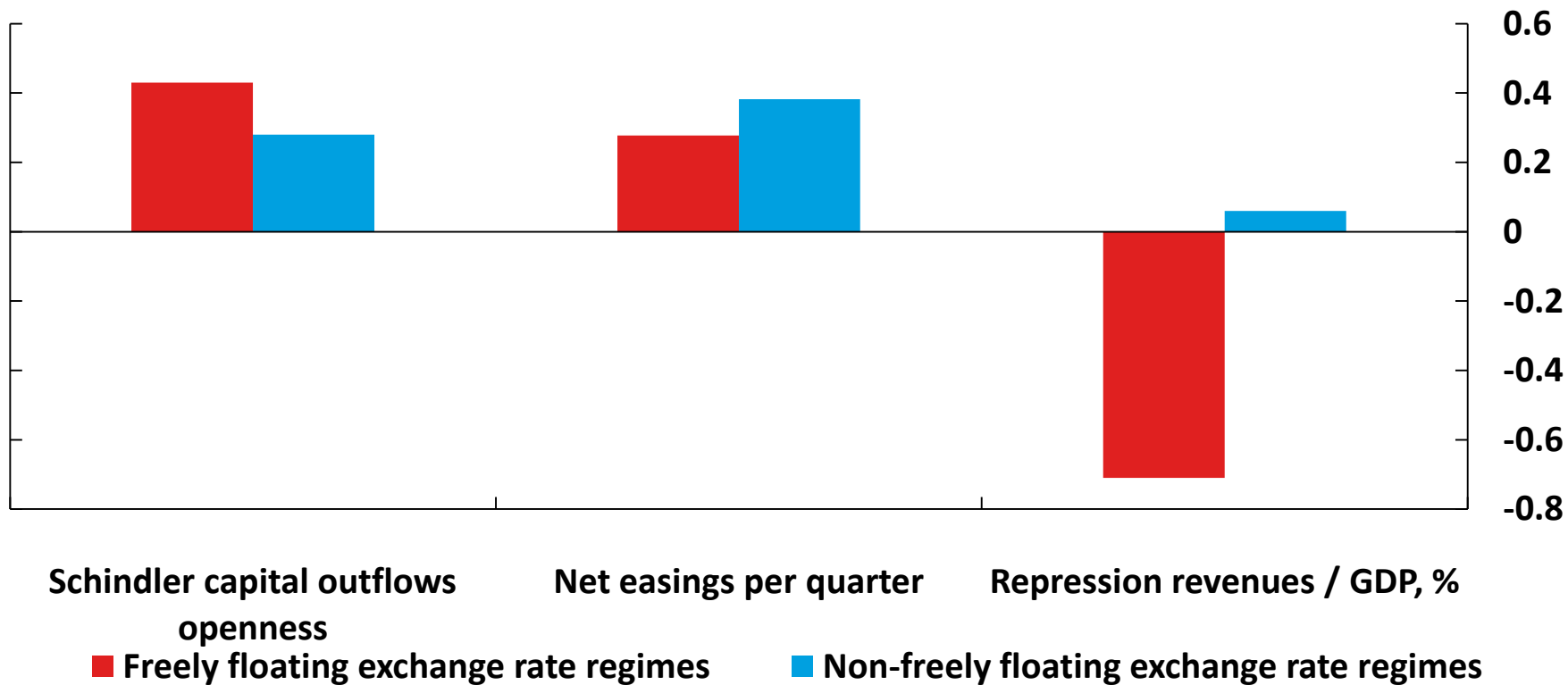
...but results remain unchanged after removing these.

2. What induces EMEs to liberalize outflows controls?

In 2000's it was mostly NKI concerns

- – overheating, volatility and FX valuation concerns

- – However, liberalization not related to systematic undervaluation, unlike in Fratzscher (2012)

- – Preventive Financial Stability objectives not too important

Conclusions

- On average EMEs did not earn repression revenues in 2000's, despite existing controls on outflows

- Outflows liberalizations in the 2000's responded to net capital inflows concerns
  - Lack of association with fiscal variables (unlike in 1980's)

- However:
  - The 2000s may have been a lucky decade for emerging markets
  - EMEs may rely on financial repression as a contingent tax dealing with realized bad tail events (eg: Argentina, 2000's)

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Thank you!