

MAKING FINANCIAL GLOBALIZATION MORE INCLUSIVE

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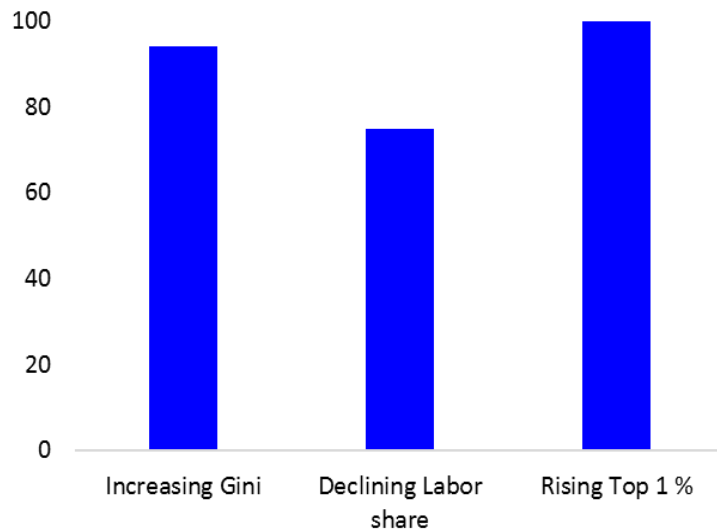
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This presentation draws on joint work with Davide Furceri and Prakash Loungani. The views expressed in this presentation are those of the author and do not necessarily represent those of the IMF or IMF policy.

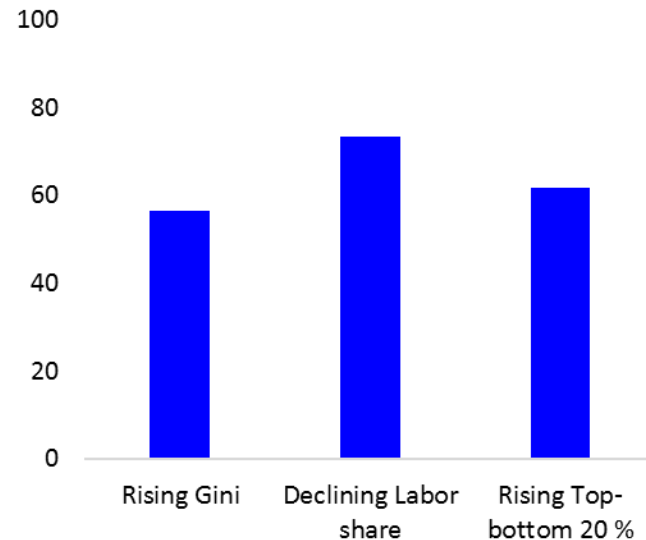


Globalization Rising; Inclusion Falling

1. AEs-share of countries with rising inequality since the 90s (%)



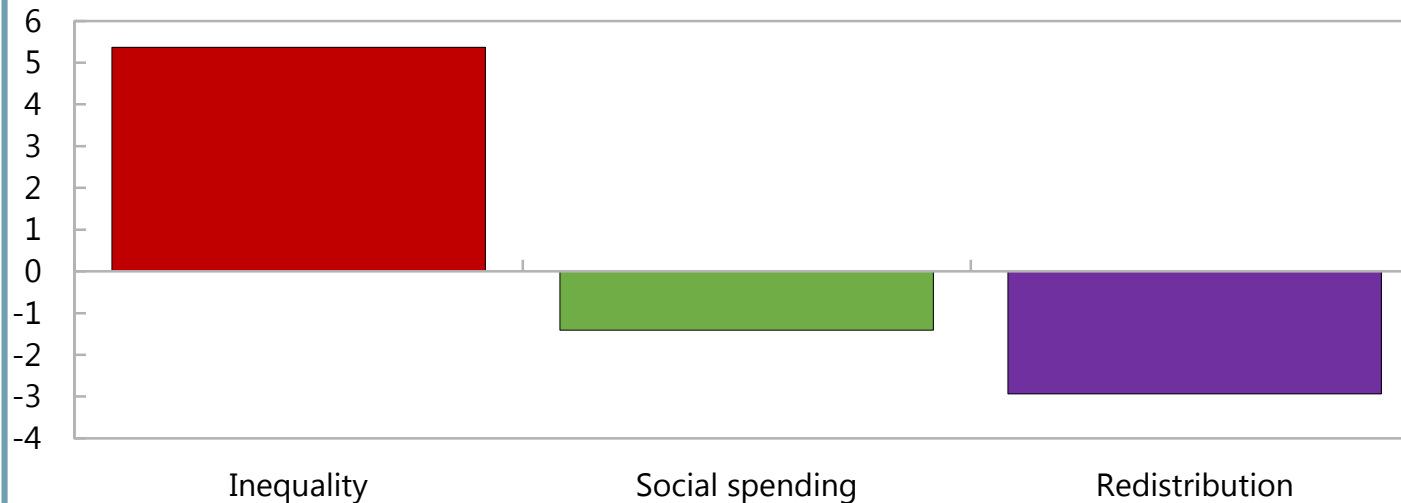
2. EMDEs-share of countries with rising inequality since the 90s (%)



Increased inequality makes growth more fragile (Berg & Ostry, 2011; Ostry et al., 2014)

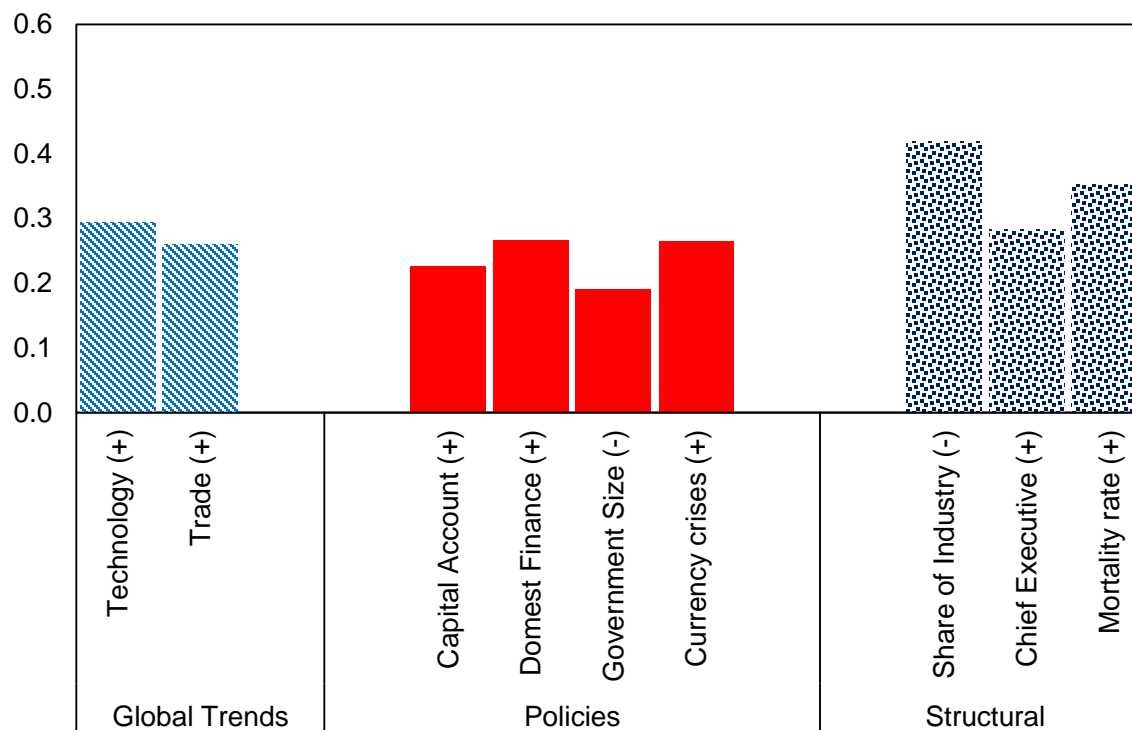
Fuelling support for protectionism

Change in the probability of a party with a nativist agenda at government , %



Note: estimates based on a panel regression framework relating inequality (social spending, redistribution) with the probability of a party with a nativist agenda at government for a sample of 164 countries over the period 1990-2012. The effects of inequality (social spending, redistribution) are based on their interquartile differences and panel regression coefficients. Social spending=education and health spending as share of GDP; Redistribution=difference between market and net Gini.

POLICIES ARE A KEY DRIVER OF INEQUALITY



Determinants of the Gini measure of inequality based on a panel regression (90 countries; 5-year averages over 1970-2015 period) estimated using weighted average least squares. Each bar shows the percentage point increase in the Gini from a 1 standard deviation increase in the variable.

Global trends: 'Technology' is share of ICT capital in total capital stock; 'Trade' is openness variable from Penn World Tables. Policies: 'Capital Account Liberalization' is measured using the Chinn-Ito Index. 'Domestic Financial Reform' is measured as in Ostry et al (2009). 'Government Size' is share of government in GDP; note (-) impact: higher government size reduces inequality. 'Currency crisis' is from Laeven and Valencia; Structural: 'share of industry' is manufacturing value added in GDP; 'Chief Executive' indicates whether govt. head is a military officer; 'mortality rate' (commonly included in inequality regressions). Source: Ostry, Furceri & Loungani (2016).

FINANCIAL GLOBALIZATION: TWO PUZZLES

○ Financial globalization works well in theory, not so well in practice

Theory predicts output (efficiency) gains from both trade and financial globalization, but gains from latter have proven difficult to demonstrate.

- ❑ Stiglitz: “Preconditions to make financial globalization work are lacking in many countries.”
- ❑ Rodrik: “The association between capital account convertibility and economic growth is weak at best...there is a strong association between financial globalization and financial crises over time”
- ❑ Krugman (May 2017): “financial globalization hasn’t been the force for good that trade has been”
- ❑ Martin Wolf (2004): “the gains [from financial globalization] have been questionable and the costs of crises enormous.”
- ❑ Eichengreen et al. (2001): evidence of a positive association between capital account liberalization and growth is “decidedly fragile.”

○ Enormous literature on impact of trade on inequality, while financial globalization gets a free pass.

Financial globalization can affect inequality in theory; shouldn’t we look at whether it does so in practice?

CONTRIBUTIONS

We search for output effects: giving theory a chance

- Use both de jure and de facto measures of financial globalization
 - Large changes in de jure measures = policy changes
 - Supplement with information on capital flows (de facto measure)

- Use sectoral as well as aggregate data, since causal effects hard to establish in macro data
 - Use of country-time fixed effects allows for cleaner identification of effects of financial globalization
 - Better identification of channels through which effects of financial globalization operate

- Trace out evolution of output in aftermath of major financial globalization episodes rather than look for permanent growth effects (Henry 2007).

We don't turn a blind eye to distributional effects: taking the theory seriously

- Impact on Gini coefficient (aggregate data) and labor shares (aggregate and sectoral data)

Bottom-line: Some evidence of output effects (better identification than in previous work helps), but also strong distributional effects.

IDENTIFICATION OF POLICY-DRIVEN GLOBALIZATION EPISODES

- Policy restrictions on cross-border transactions are reported in the *IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER)* database.
- Information in *AREAER* is combined by Chinn and Ito to construct an index of capital account restrictions.
- Examining behavior of output (or inequality) before and after removal of major policy restrictions requires information on when restrictions were lifted; difficult to do for large sample of countries.
- We infer timing of major policy changes by looking at large changes in the Chinn-Ito index (Kaopen)
 - Assume liberalization takes place when, for a given country at a given time, the annual change in the Kaopen indicator exceeds by two standard deviations the average annual change over all observations.
- This criterion identifies 224 episodes (over 1970-2010)—the majority occurring in the early 90s (when inequality started to increase).
- Examples: several EU countries in the early 1990s; India and Brazil in the mid- and late 1990s.

EMPIRICAL STRATEGY—MACRO LEVEL DATA

Baseline:

$$g_{it} = a_i + \gamma_t + \sum_{j=0}^l \delta_k D_{i,t-k} + \sum_{k=0}^l \vartheta_k X_{i,t-k} + \varepsilon_{it}$$

Role of country-specific factors:

$$g_{it} = a_i + \gamma_t + \sum_{j=0}^l \vartheta_j X_{i,t-j} + \sum_{j=0}^l \delta_j^- D_{i,t-j} G(z_{it}) + \sum_{j=0}^l \delta_j^+ D_{i,t-j} (1 - G(z_{it})) + \varepsilon_{it}$$

g = change in log output (Gini);

D = liberalization episode;

X = baseline: current and lagged reforms in trade, current account, product and labor market;
robustness checks: baseline + growth expectations + other controls.

G= smooth transition function ($G = 1 \Leftrightarrow$ (extremely) low financial liberalization/inclusion, crises).

Estimates based on OLS and IV (liberalization in trading partners and initial degree of openness) for 149 countries for the period

EMPIRICAL STRATEGY—SECTORAL LEVEL DATA

Baseline:
$$g_{jit} = a_{ij} + \gamma_{it} + \rho_{jt} + \sum_{k=0}^l \delta_k S_j D_{i,t-k} + \varepsilon_{jit}$$

i (country); j (sector); t (time).

g = change in log output (labor share of income);

D = liberalization episode;

S = external financial dependence (EFD); natural-layoff rate (NL); EOS between capital and labor.

Theoretical predictions:

(i) output (labor share) effects are larger for industries with higher EFD—*demand for external funds*;

(ii) labor share effects are larger for industries with higher NL—*bargaining power*;

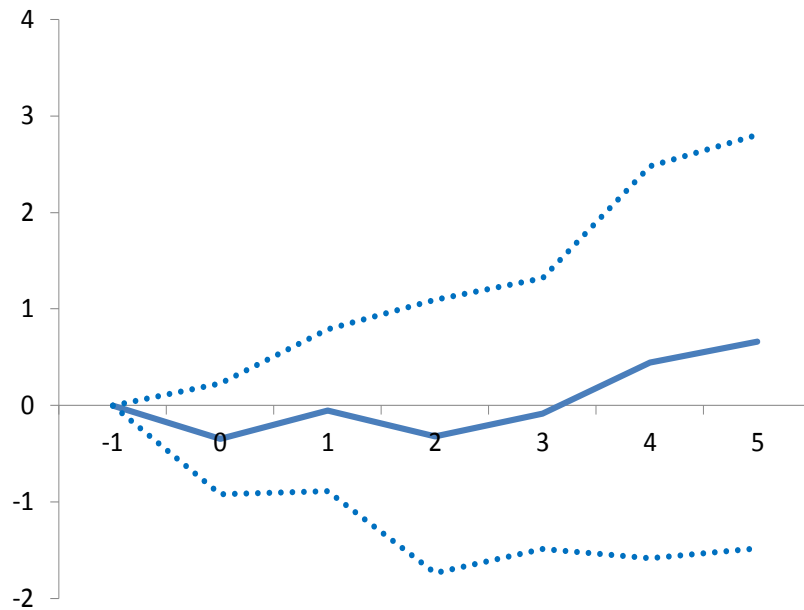
(iii) labor share effects are larger for industries with $\text{EOS} > 1$ —*cost of capital*.

Estimates based on OLS using sectoral data for 23 AEs, 25 industries, 1975-2010.

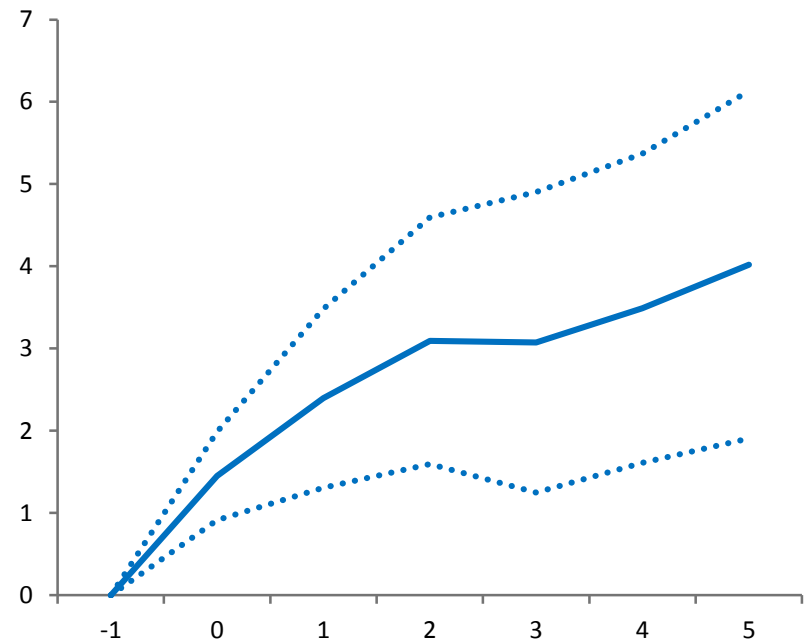
RESULTS—MACRO LEVEL DATA

INSIGNIFICANT OUTPUT GAINS BUT SIGNIFICANT INCREASES IN INEQUALITY

Panel 1. Output (%)



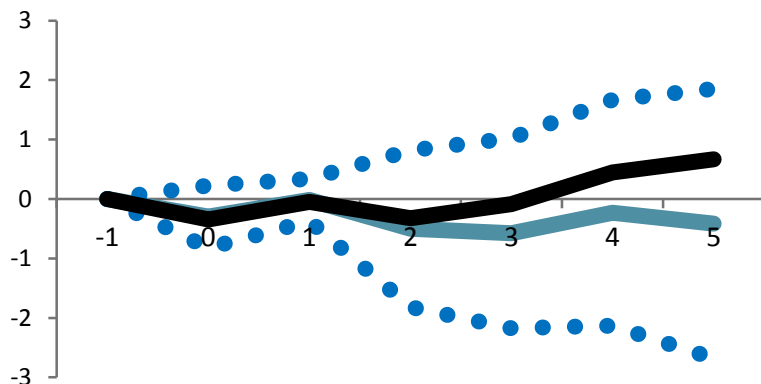
Panel 2. Gini (%)



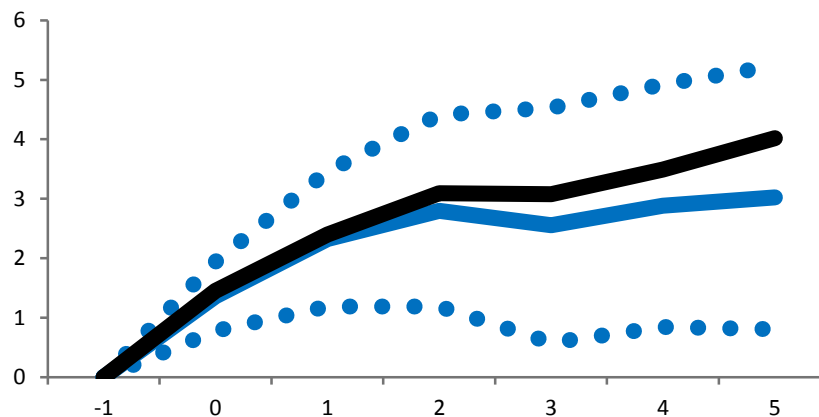
Note: The solid lines indicate the response of output (inequality) to a capital account liberalization episode; dotted lines correspond to 90 percent confidence bands. The x-axis denotes time. t=0 is the year of the reform.

...THE RESULTS ARE ROBUST TO ENDOGENEITY CHECKS

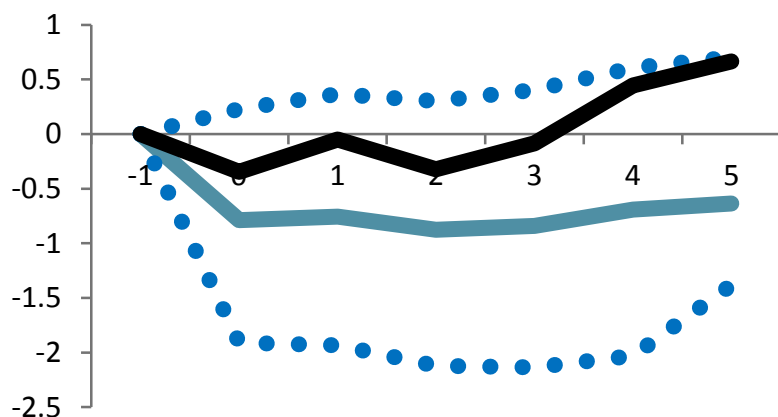
Panel 1. Output (%)—controlling for growth expectations



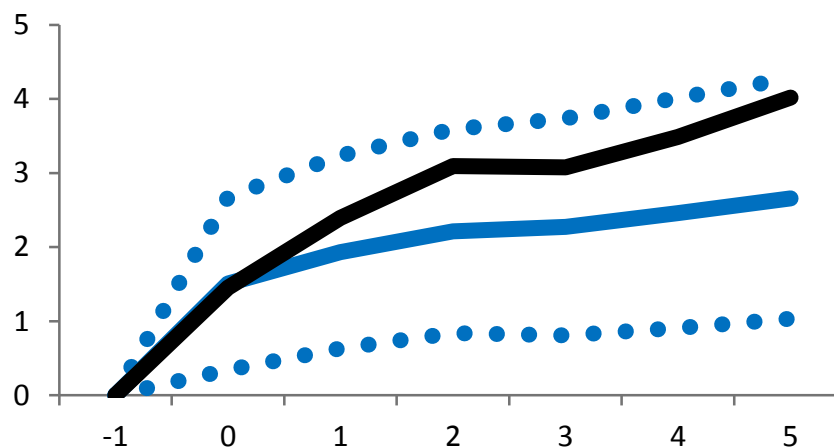
Panel 2. Gini (%)—controlling for growth expectations



Panel 3. Output (%)—IV



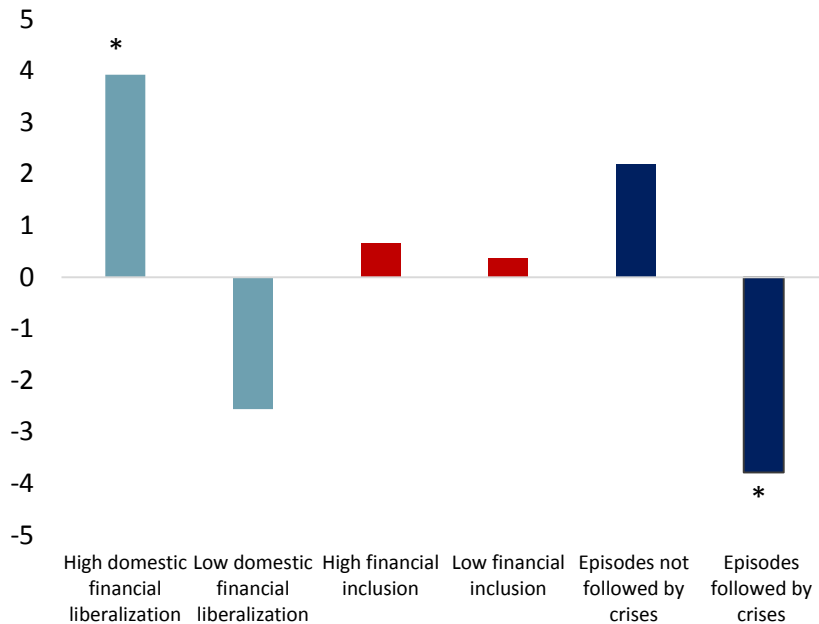
Panel 4. Gini (%)—IV



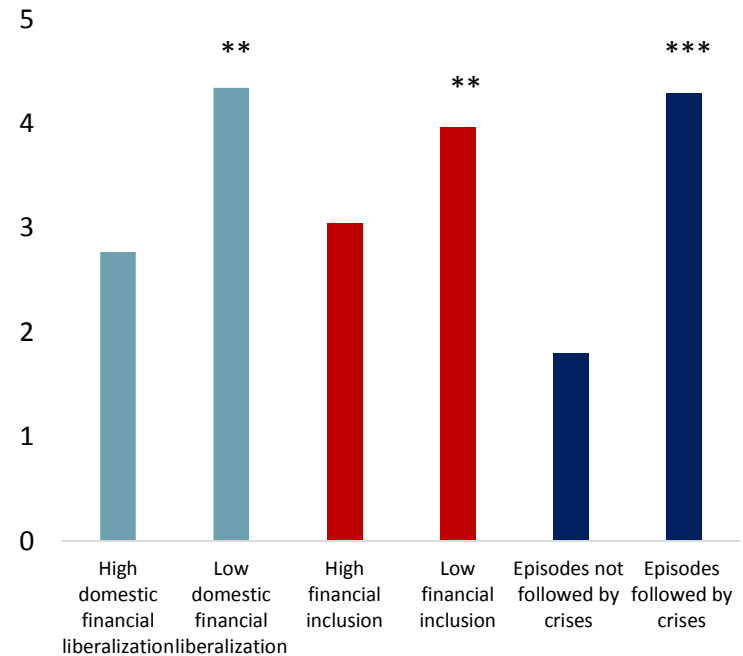
Note: The solid lines indicate the response of output (inequality) to a capital account liberalization episode; dotted lines correspond to 90 percent confidence bands. The solid black lines denote the baseline effect.

BUT OUTPUT & DISTRIBUTIONAL EFFECTS DEPEND ON INSTITUTIONS

Panel 1. Output (%)



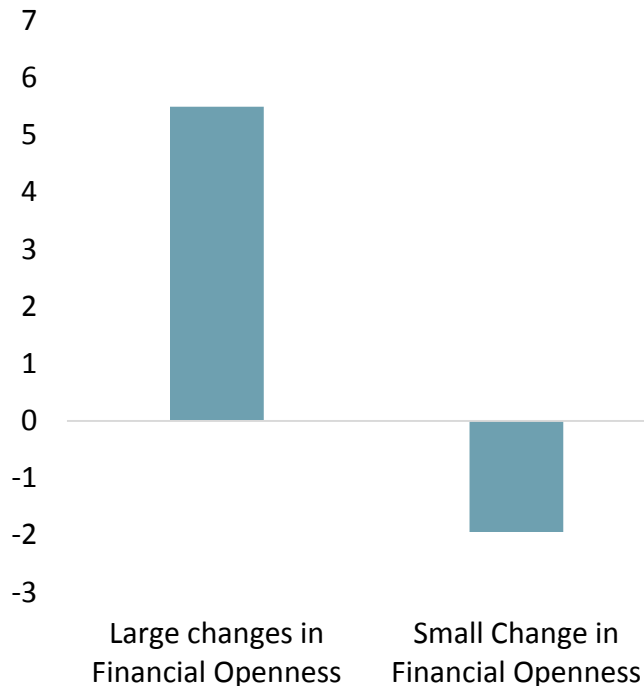
Panel 2. Gini (%)



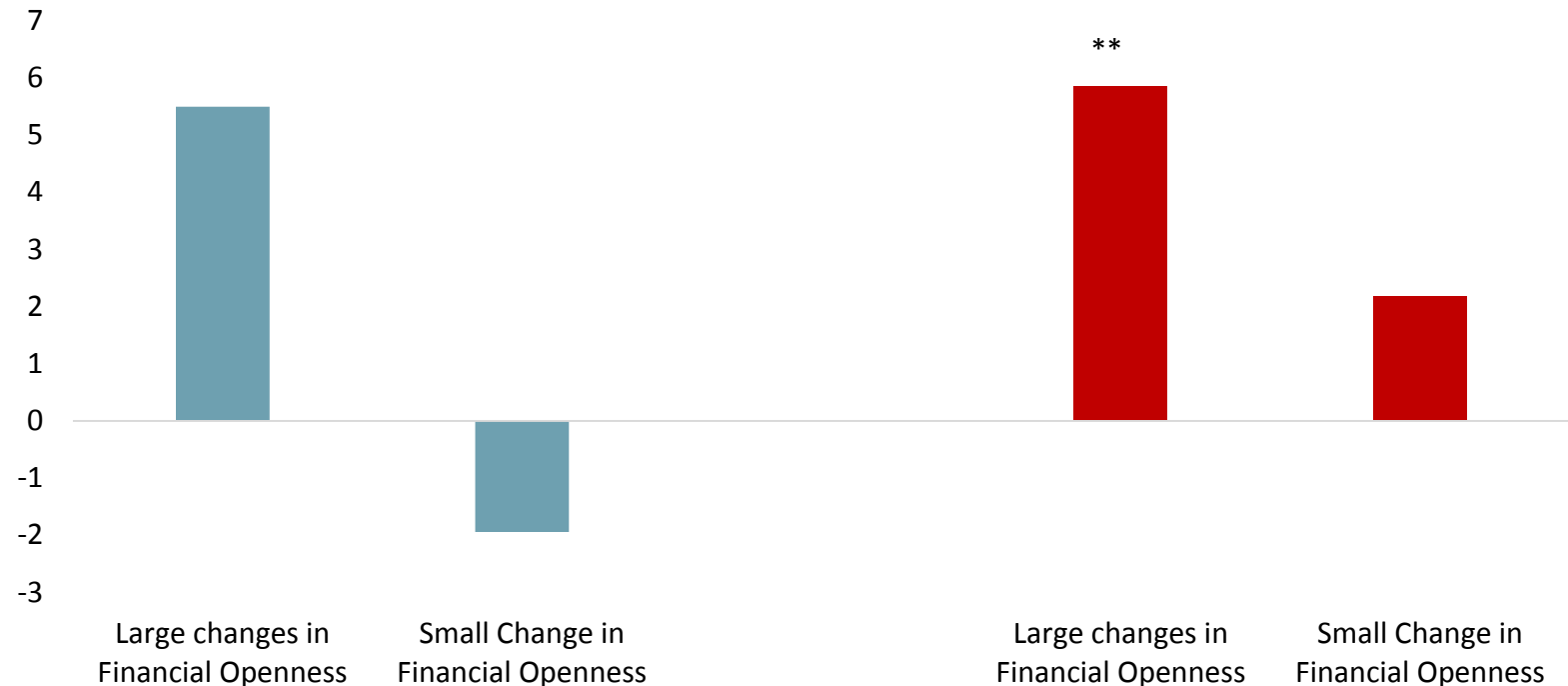
Note: Medium-term effects (that is, after five years of the reform). ***, **, * denote significance at 1 percent, 5 percent and 10 percent, respectively.

... AND ON THE EXTENT OF CAPITAL FLOWS (*DE FACTO* MEASURE)

Panel 1. Output (%)



Panel 2. Gini (%)

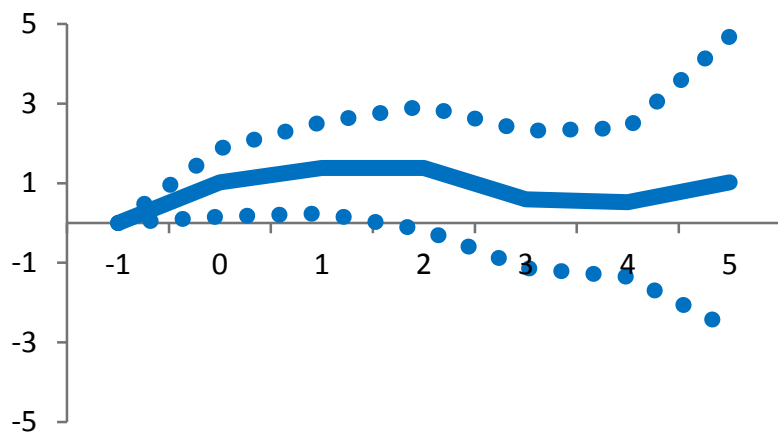


Note: Medium-term effects (that is, after five years of the reform). ***, **, * denote significance at 1 percent, 5 percent and 10 percent, respectively. Blue (red) bars denote the medium-term response (that is, five years after the reform) of output (inequality). Flows defined as the cumulative 5-year change in total asset and liabilities as percent of GDP after the reform.

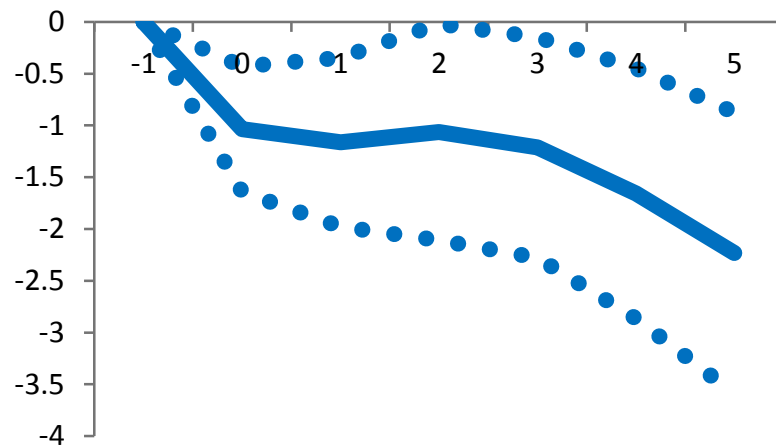
Results—sectoral level data

SHORT-TERM OUTPUT GAINS, SIGNIFICANT DECLINE IN LABOR SHARE

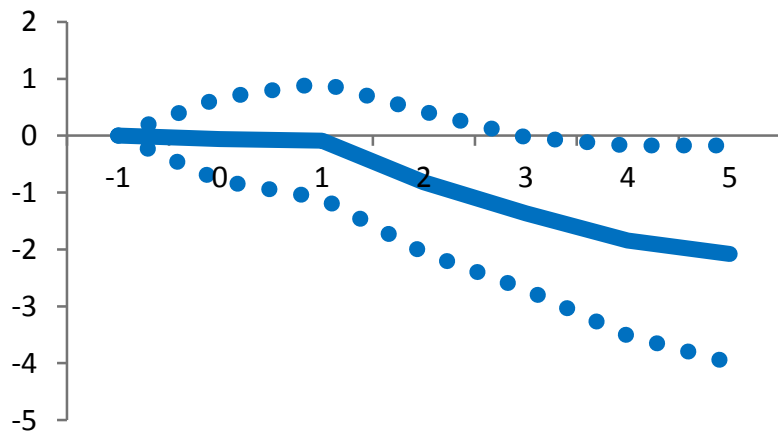
Panel 1. Output (%)—external financial dependence



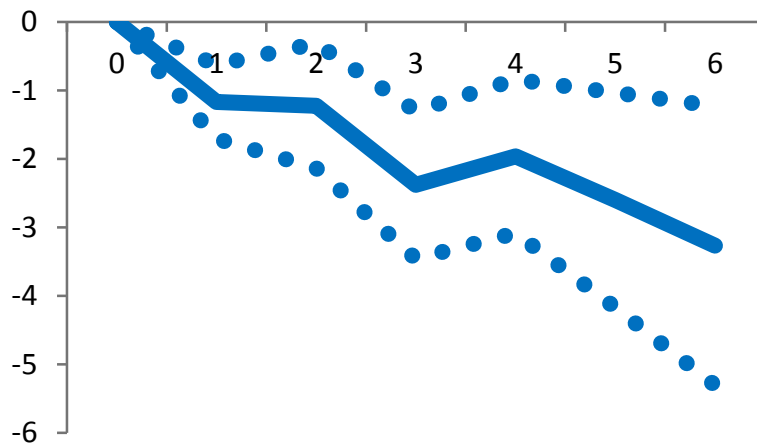
Panel 2. Labor share (ppt)—external financial dependence



Panel 3. Labor share (ppt)—natural layoff rate



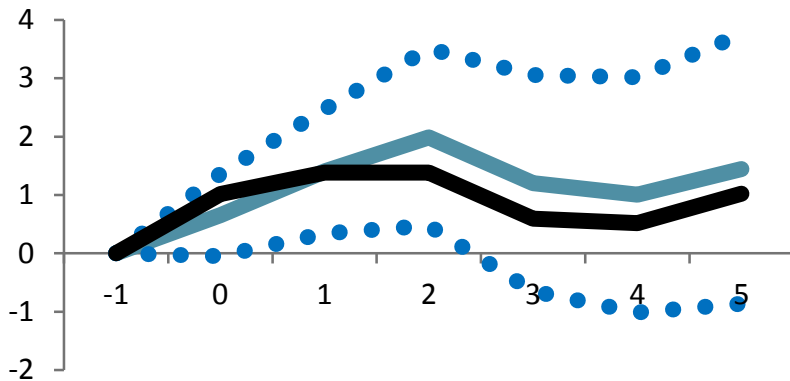
Panel 4. Labor share (ppt)—EOS >1



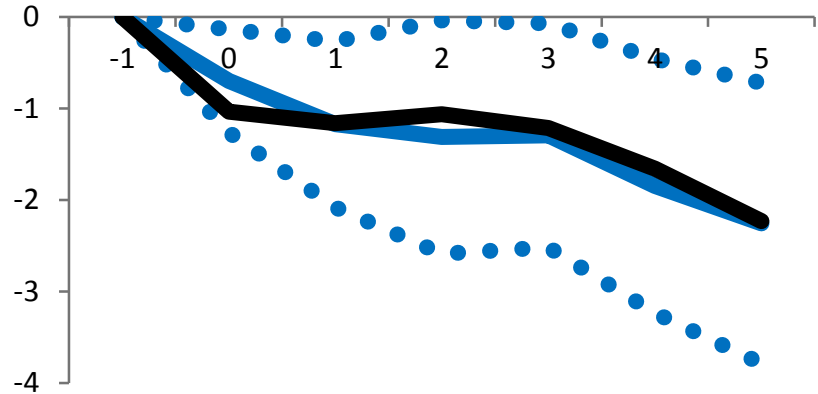
Note: Solid line denotes the differential effect of capital account liberalization episodes between a sector with a high external financial dependence/layoff rate/elasticity of substitution (at the 75th percentile) and a sector with a high external financial dependence/layoff rate/elasticity of substitution (at the 25th percentile).

RESULTS ROBUST TO CONTROLLING FOR DOMESTIC FINANCIAL REFORMS...

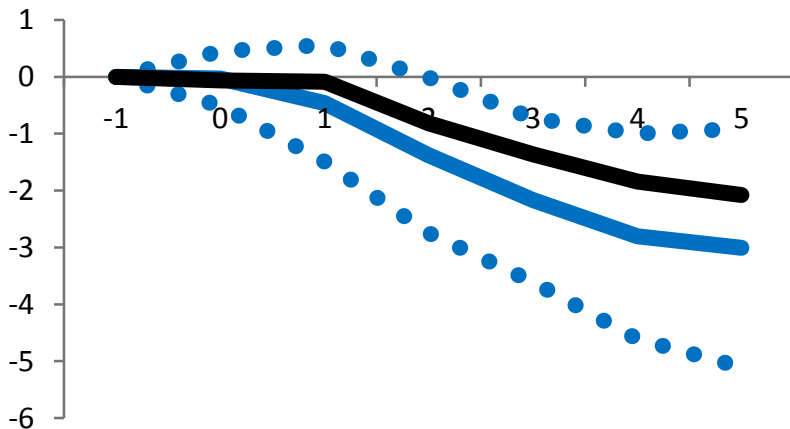
Panel 1. Output (%)—external financial dependence



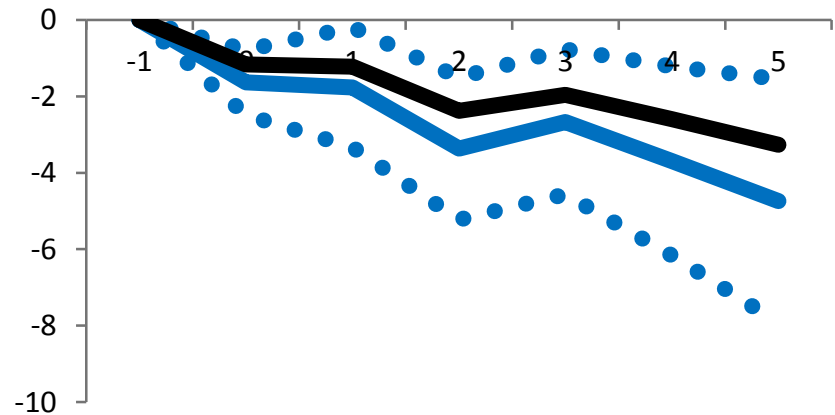
Panel 2. Labor share (ppt)—external financial dependence



Panel 3. Labor share (ppt)—natural layoff rate



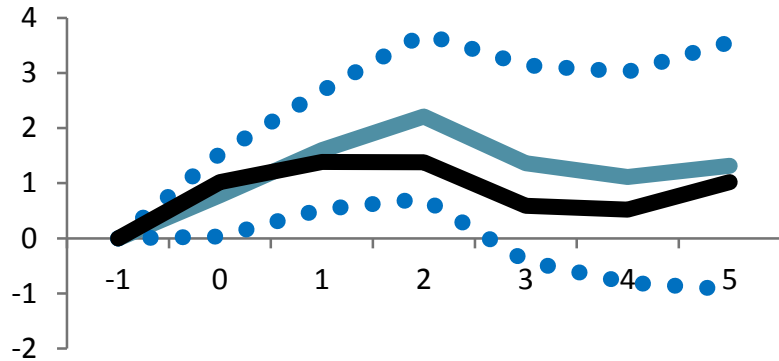
Panel 4. Labor share (ppt)—EOS >1



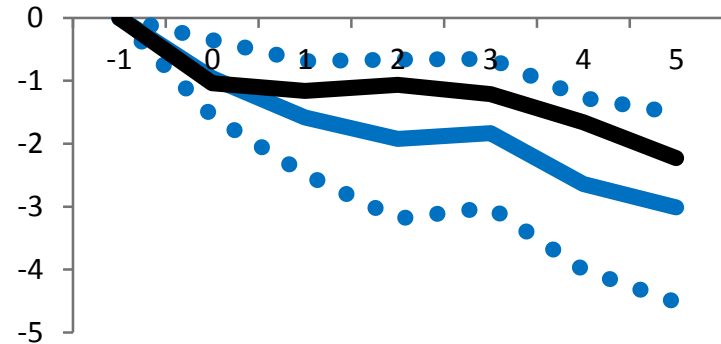
Note: Solid blue line denotes the differential effect of capital account liberalization episodes between a sector with a high external financial dependence/layoff rate/elasticity of substitution and a sector with a high external financial dependence/layoff rate/elasticity of substitution). Black lines denote baseline effects.

... TRADE REFORMS ...

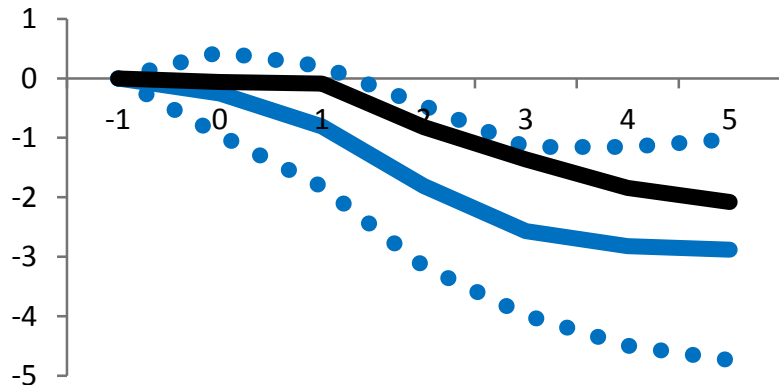
Panel 1. Output (%)—external financial dependence



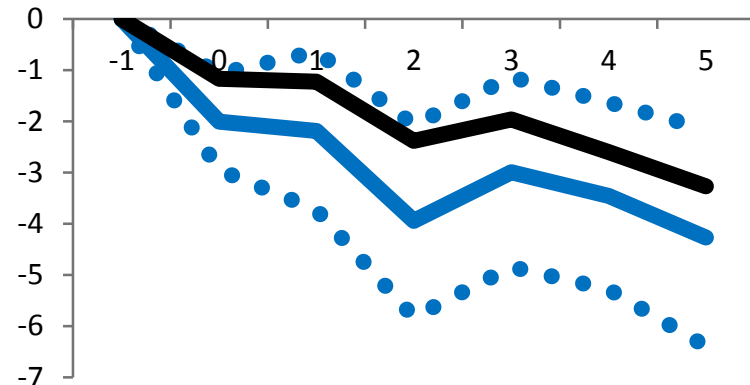
Panel 2. Labor share (ppt)—external financial dependence



Panel 3. Labor share (ppt)—natural layoff rate



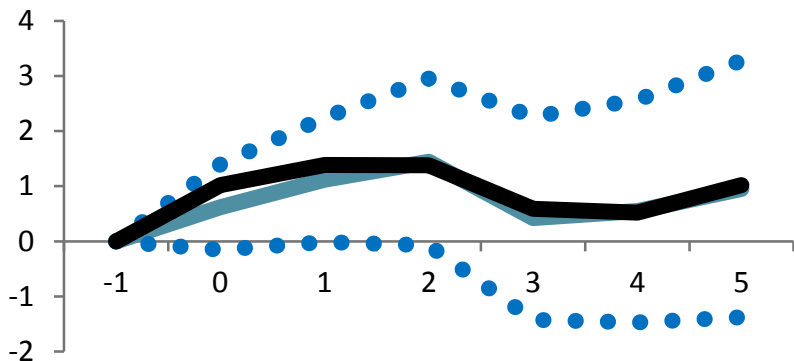
Panel 4. Labor share (ppt)—EOS >1



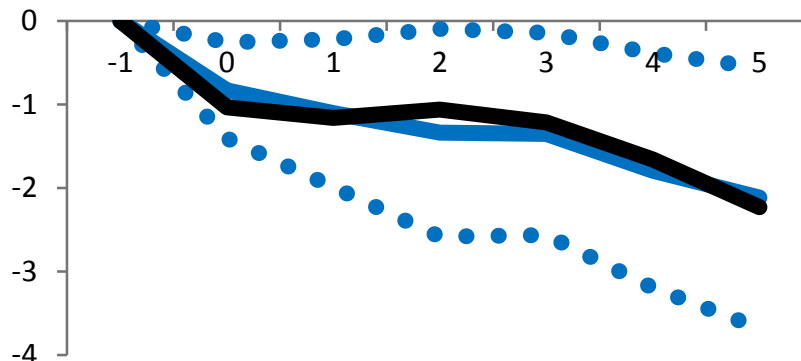
Note: Solid blue line denotes the differential effect of capital account liberalization episodes between a sector with a high external financial dependence/layoff rate/elasticity of substitution and a sector with a high external financial dependence/layoff rate/elasticity of substitution). Black lines denote baseline effects.

... AND TECHNOLOGICAL CHANGE

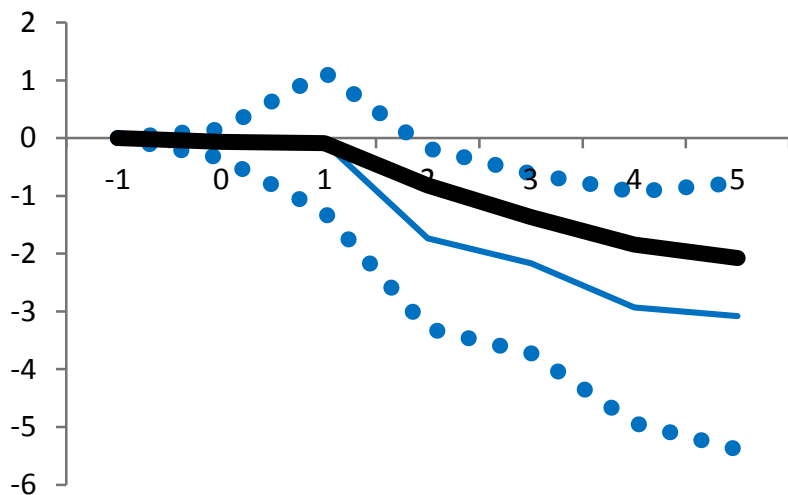
Panel 1. Output (%)—external financial dependence



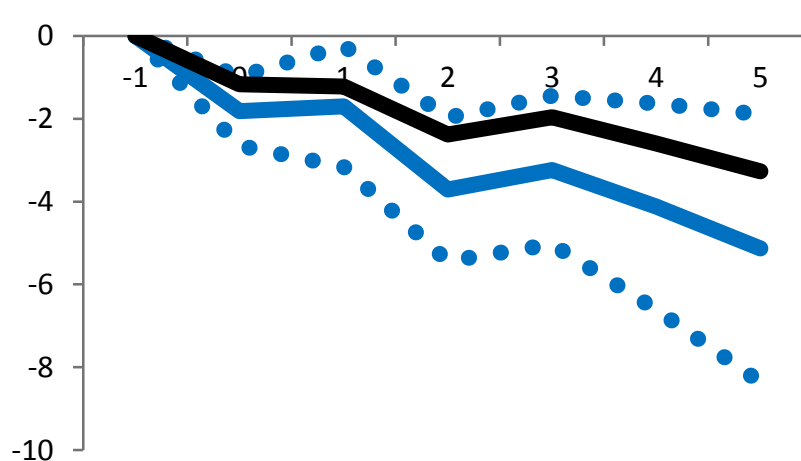
Panel 2. Labor share (ppt)—external financial dependence



Panel 3. Labor share (ppt)—natural layoff rate



Panel 4. Labor share (ppt)—EOS >1



Note: Solid blue line denotes the differential effect of capital account liberalization episodes between a sector with a high external financial dependence/layoff rate/elasticity of substitution and a sector with a high external financial dependence/layoff rate/elasticity of substitution). Black lines denote baseline effects.

KEY FINDINGS

- *On average*, capital account liberalization has led to limited output gains & significant increases in inequality, but effects are heterogenous across countries and sectors.
- In aggregate data:
 - Liberalization increases output in countries with high financial depth.
 - Distributional effects are more pronounced in countries with low financial depth and low inclusion, and when liberalization is followed by a financial crisis.
- In sectoral data:
 - Stronger evidence of output effects.
 - Distribution impacts remain strong—liberalization reduces labor share of income and effect is larger for industries with:
 - higher external financial dependence;
 - higher natural propensity to use layoffs to adjust to idiosyncratic shocks;
 - higher elasticity of substitution between capital and labor.

CONCLUDING REMARKS: POLICY IMPLICATIONS

- ❑ Discussions on 'saving globalization' should distinguish between trade & financial globalization.
- ❑ Financial globalization presents a more difficult efficiency-equity tradeoff than does trade
 - Output benefits more difficult to establish than with trade;
 - Distributional considerations as important as in the case of trade.
- ❑ Policies to improve efficiency-equity tradeoff posed by financial globalization:
 - ➔ Sequencing matters:
 - reforms aimed at fostering domestic financial liberalization and depth;
 - policies to broaden access to finance (financial inclusion).
 - ➔ Macroprudential & capital account policies to mitigate risk of post-liberalization crisis.