

# SOCIAL AND GENDER IMPLICATIONS OF CAPITAL ACCOUNT REGULATIONS

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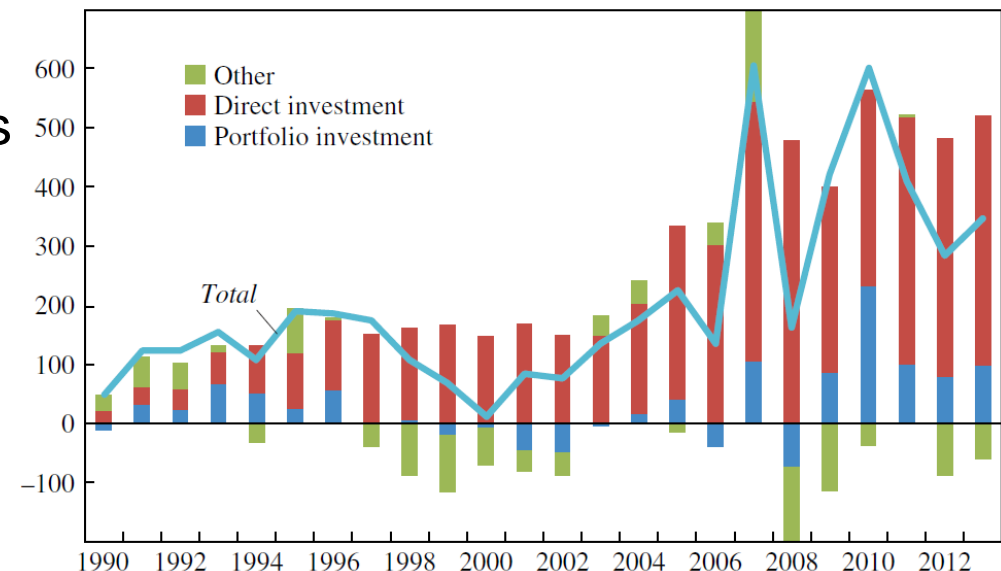
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# MOTIVATION:

Large volatile capital flows as major drivers of business cycles in developing countries: many countries responded with capital account regulations in the past decade and the IMF recently recognized their importance.

- But what is the role of capital account regulations?
- And what are the channels through which they can help manage macroeconomic risks and improve social and gender outcomes?
- Can capital account regulations be used counter-cyclically?
- During booms to counter:
  - ▣ Real exchange rate appreciation
  - ▣ Massive reserve accumulation
  - ▣ Inflation/overheating
  - ▣ Limited space for fiscal tightening

Net private capital flows to emerging markets, 1990–2012



Source: World Economic Outlook Database, IMF.  
Notes: Flows exclude changes in reserves and official capital flows.

# OUTLINE



1. What are the risks arising from capital inflows, and what are their social and gender effects?
2. Data sources and definitions
3. Evolution of capital account regulations
4. Capital account regulations as countercyclical macroeconomic policy tools:
  - (a) Reducing foreign exchange (FX) pressure
  - (b) Diminishing real exchange rate appreciation
  - (c) Providing monetary policy autonomy
  - (d) Improving crisis resilience and post-crisis performance
5. Conclusions and implications for social and gender inequality

# 1. What are the risks arising from capital inflows?

## Macroeconomic-stability risks

- Real exchange rate appreciation
  - ▣ Hurts competitiveness and growth potential of the country, creating Dutch disease
  - ▣ Leads to current account deficits, increasing vulnerability to crises
- Reserve accumulation
  - ▣ Increases monetary base, which is inflationary unless sterilized
  - ▣ Sterilization is difficult in countries with less developed domestic bond markets
- Inflation/overheating
  - ▣ Hurts low-income residents, esp. if food prices rise.
- Limited space for fiscal tightening
  - ▣ Tight fiscal policy can be used to fight expansion resulting from capital inflows, but it is highly undesirable given large time lags in implementation.
- Inconclusive empirical evidence of effectiveness of capital account regulations in reducing these risks (Magud and Reinhart, 2007).

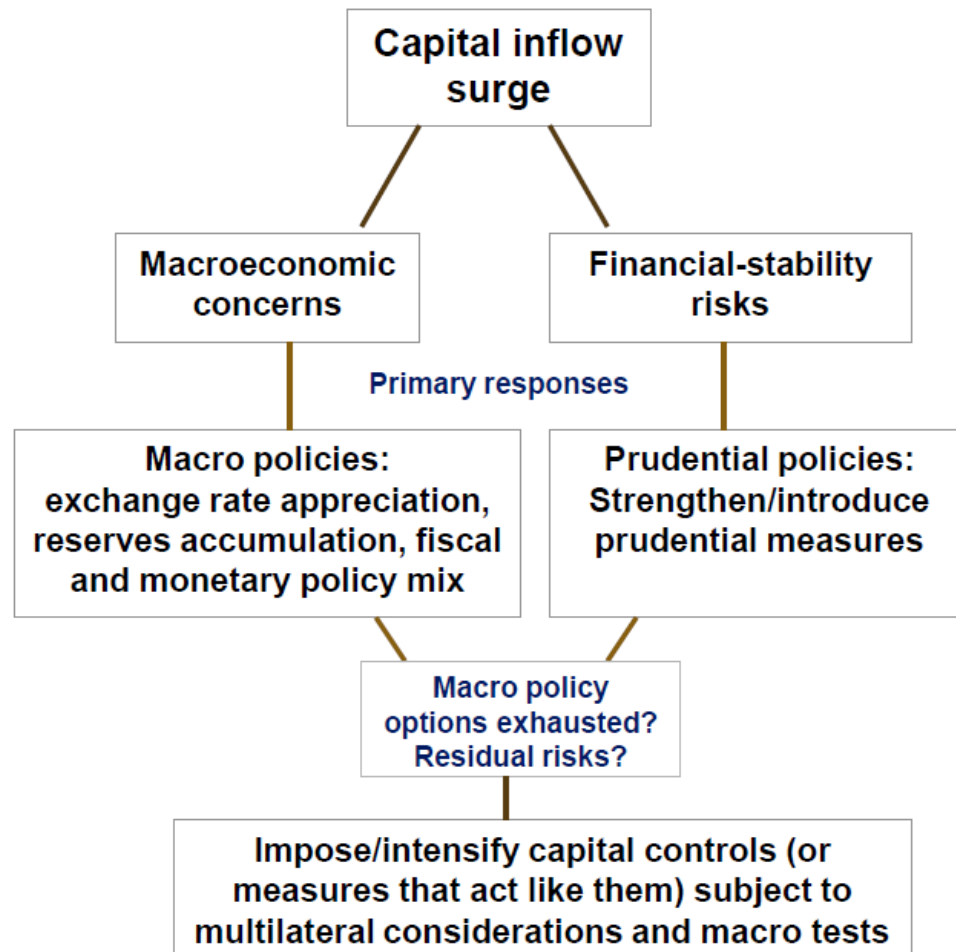
## Financial-stability risks

- Rapid credit growth
  - ▣ Overborrowing from abroad leads to an overexpansion of credit by domestic firms to business and government
- Asset price bubbles
  - ▣ Stock market bubbles
  - ▣ Real estate bubbles
- Currency and maturity mismatches
  - ▣ Short-term borrowing in foreign currency → lending long-term in domestic currency
- Significant empirical evidence of effectiveness of capital account regulations in reducing these risks (Ostry et al., 2012), and theoretical support (Korinek, 2011; Jeanne and Korinek, 2011).

# What are the social and gender implications of these risks?

- Failure to manage these risks creates fragility and economic instability.
  - ▣ Higher growth volatility and lower rates of growth increase unemployment rates and economic insecurity.
  - ▣ Buffer effect: Female unemployment rates tend to rise faster in recessions as women are first to get laid off.
- The real exchange rate appreciation undermines the competitiveness of non-traditional export sectors.
  - ▣ Segmentation effect: This reduces job growth in generally female-intensive export sectors.
  - ▣ The failure of the non-traditional exports to generate enough jobs creates a greater reliance on informal sector.
  - ▣ Substitution effect: This informalization comes with the feminization of informal sector employment since employers substitute men for women who are more willing to accept lower pay and inferior work conditions.
- Inflation targeting policy creates a deflationary bias:
  - ▣ Weaker demand slows down growth, and reduces job creation.
  - ▣ This may reduce women's employment relative to men's (Heintz and Braunstein, 2008). Resulting fall in household income may increase pressures on women's unpaid work.

# The recent approach of IMF (2012)



- Capital controls recommended as a policy of last resort if all other macro policy options are exhausted.
- Preference for capital inflow measures over outflow
- Preference for price-based measures over quantity-based
- “Institutional view” still emphasizes the benefits of capital inflows, and even recommends pre-mature financial liberalization:
  - “a country could make progress towards greater capital flow liberalization before reaching all the necessary thresholds for financial and institutional development, and indeed doing so may spur progress in these dimensions” (IMF, 2012).

2.

## Data sources and definitions

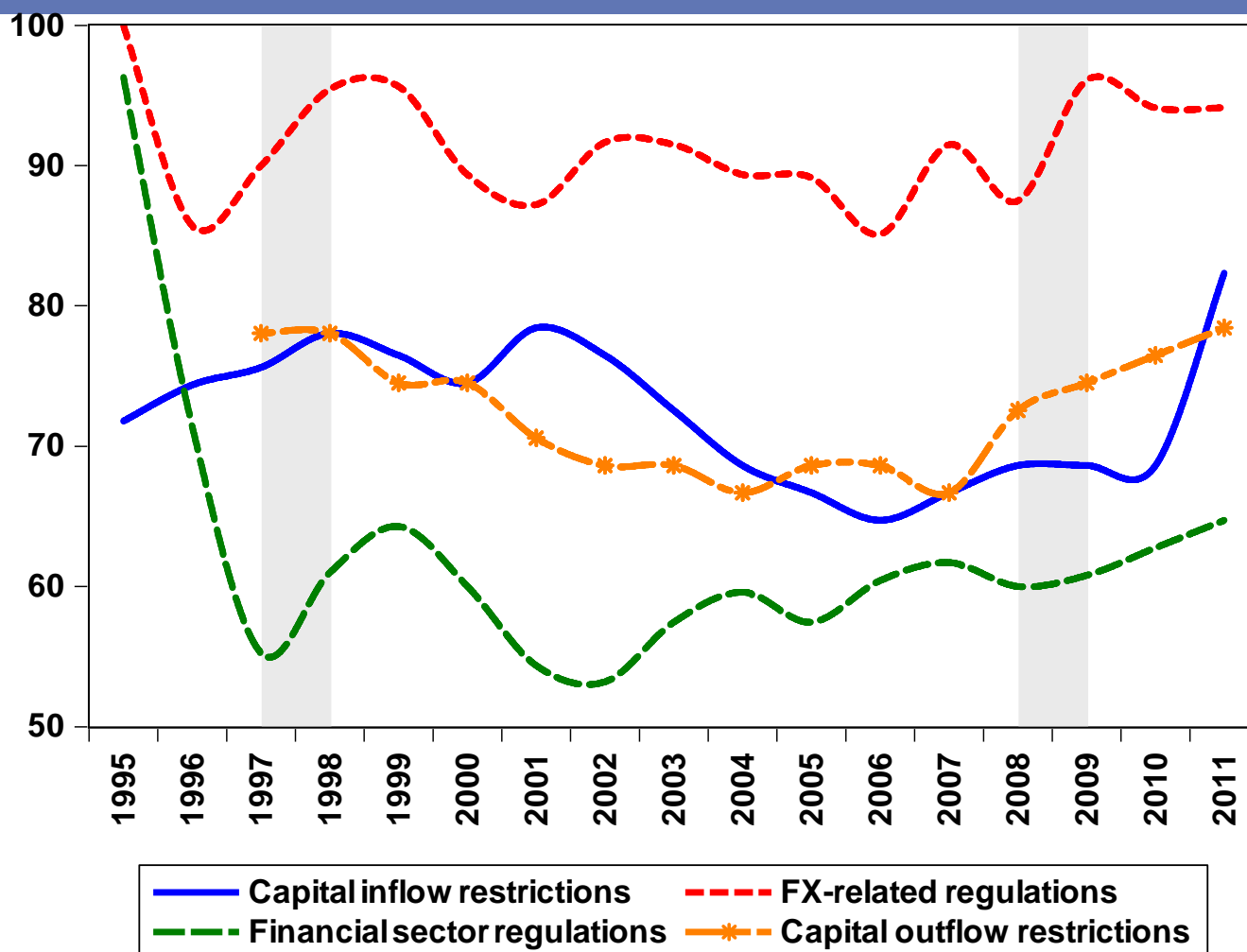
# Data sources and definitions

- We use four indices of *de jure* capital account regulations extending them up to 2011 based on the IMF's *Annual Report on Exchange Arrangements and Exchange Restrictions* database:
  - (i) capital inflow restrictions (Schindler, 2009),
  - (ii) FX-related regulations (Ostry et al., 2012),
  - (iii) financial sector regulations (Ostry et al., 2012),
  - (iv) capital outflow restrictions (Schindler, 2009).
- (i) and (iv) cover an average of binary regulations across six asset categories: [money market instruments](#), [bonds](#), [equities](#), [financial credits](#), [collective instruments](#), and [direct investment](#). They range between 0 and 1; an absence of regulations in any category coded as 0, the presence of regulations across every category coded as 1, and other values representing a mix of regulations in these categories.
- (ii) – FX-related regulations – covers a simple average of [restrictions on lending locally in foreign exchange](#), [restrictions on purchase of locally issued securities denominated in foreign exchange](#), [differential treatment of deposit accounts in foreign exchange](#), and [limits on open foreign exchange positions](#).
- (iii) – financial sector regulations – is composed of a simple average of [differential treatment of accounts held by non-residents](#), [limits on borrowing from abroad](#), and [restrictions on maintenance of accounts abroad](#).
- Data on nominal exchange rates and reserve accumulation is obtained from IFS, IMF, and on real exchange rates is from Darvas (2012).
- Data on institutional quality is from the International Country Risk Guide dataset, and data on exchange rate regime is from Ghosh et al. (2010).
- Rest of the data on savings, government consumption, FDI inflows, inflation, and terms of trade come from the World Development Indicators, World Bank.



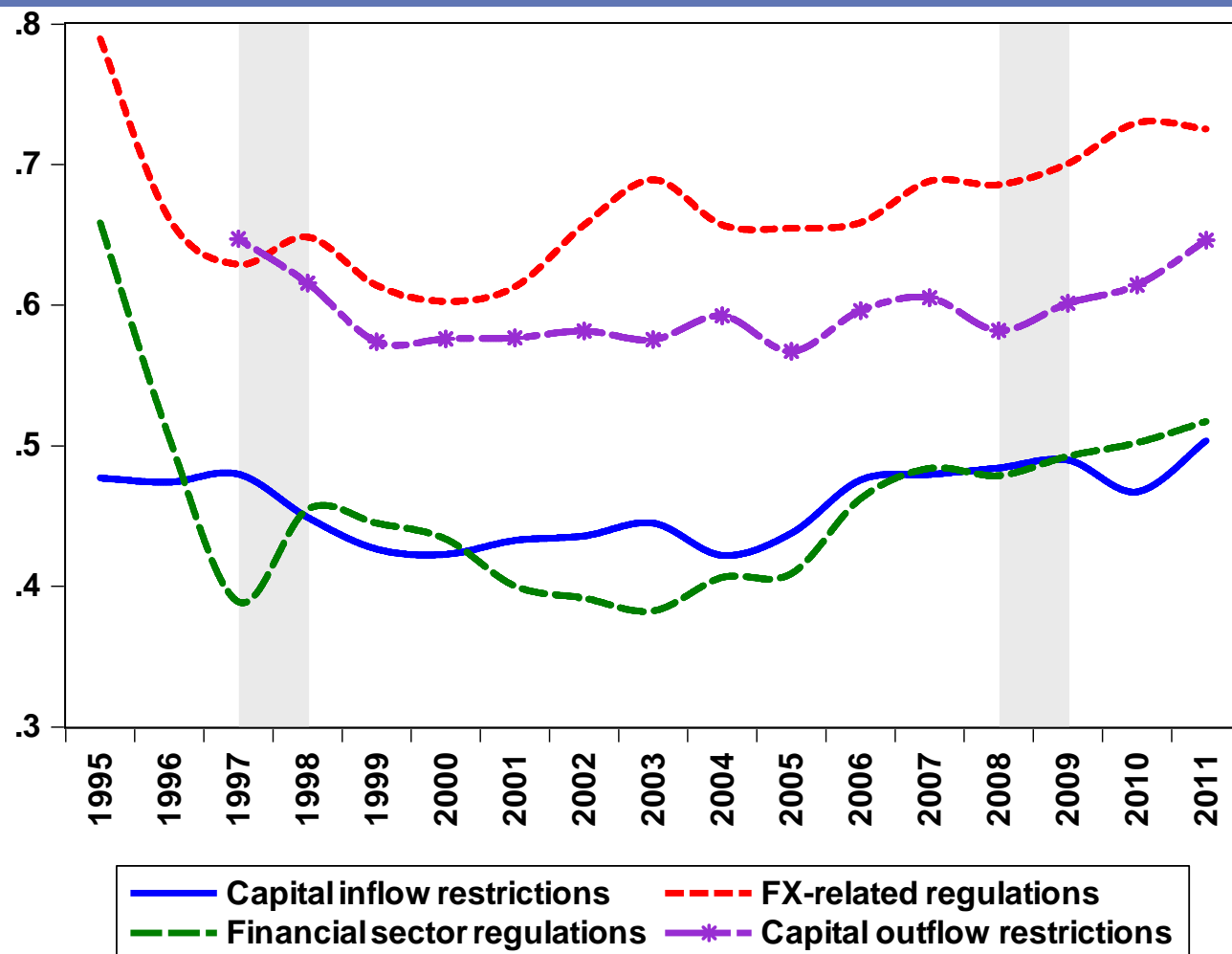
### 3. Evolution of capital account regulations

# Figure 1. Incidence of Capital Account Regulations



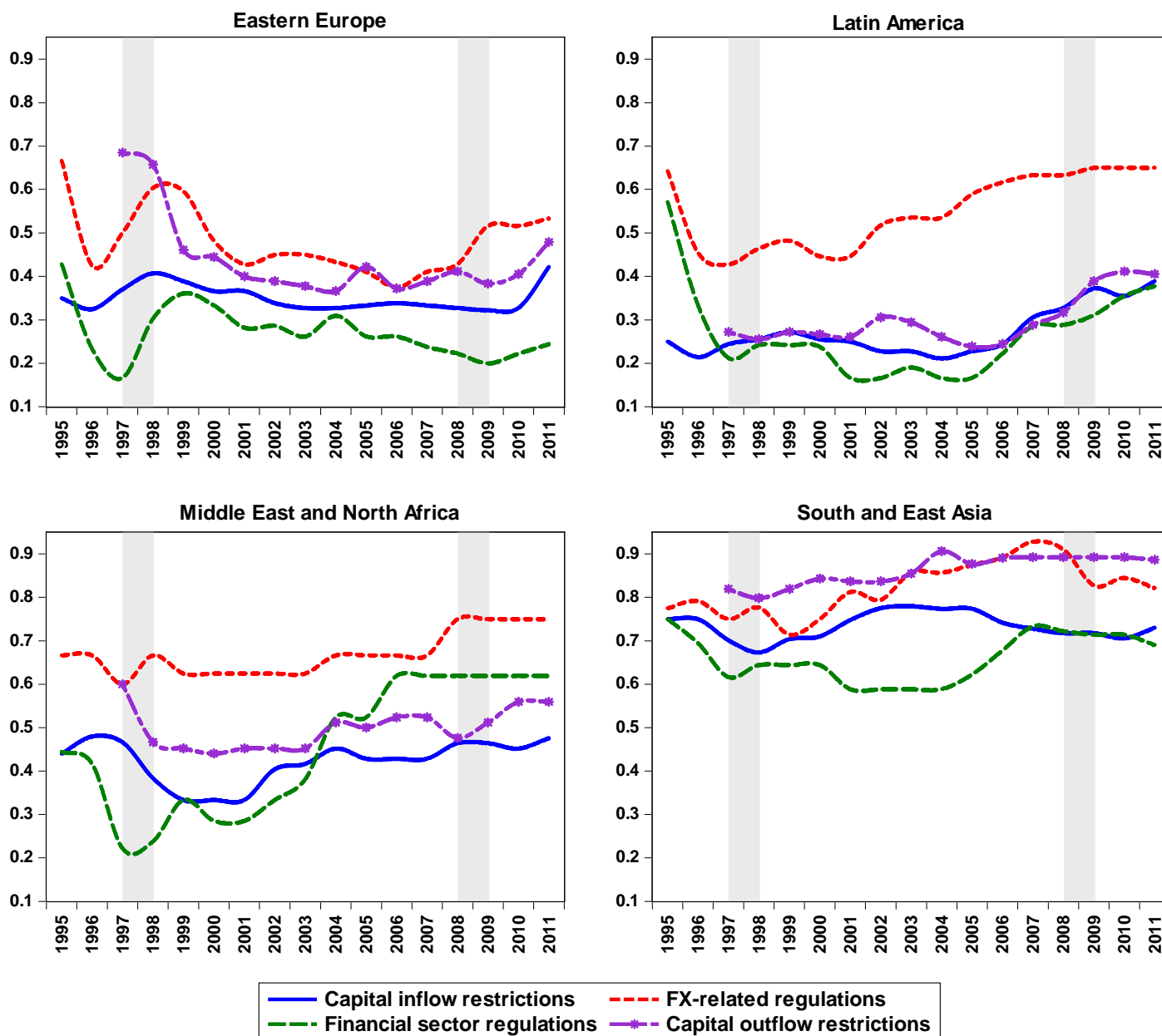
Source: Schindler (2009), Ostry et al. (2012) and authors' estimates from IMF's AREAER.  
Note: Numbers show the percentage of countries with a capital account regulation over time.

## Figure 2. Capital Account Regulations, Country Average



Source: Schindler (2009), Ostry et al. (2012) and authors' estimates from IMF's AREAER.  
Note: Numbers show the average of capital account regulations across countries over time.

# Figure 3. Regional averages of policy measures



Source: Schindler (2009), Ostry et al. (2012) and authors' estimates from IMF's AREAER.

Note: Numbers show the average of capital account regulations across countries for each region over time.

4.

Capital account regulations as countercyclical macroeconomic policy tools

(a) Reducing foreign exchange (FX) pressure

# An FX pressure index

- We define foreign exchange pressure index as a weighted average of changes in reserves ( $RES$ ) and real exchange rate ( $RER$ ) that uses the inverse of standard deviations of each variable as weights. This has the advantage of putting less weight on variables with higher volatility by adjusting for different volatilities of each variable.

$$FXP_{it} = \frac{1}{\sigma_i^{RES}} \frac{\Delta RES_{it}}{RES_{it}} + \frac{1}{\sigma_i^{RER}} \frac{\Delta RER_{it}}{RER_{it}}$$

- An increase in  $RER$  indicates an appreciation of the real exchange rate, and an increase  $RES$  indicates an accumulation of international reserves. Thus,  $FXP$  is expected to rise during capital inflow surges and fall during periods of large capital outflows.

# SUMMARY OF THE PAPER (1 of 3)

## (1) Measuring Foreign Exchange (FX) Pressure

- ▣ Develop an index to measure FX pressure resulting from large capital inflows
  - A weighted average of real exchange rate appreciation and reserve accumulation
- ▣ FX pressure:
  - Robust to the effects of exchange rate regimes
    - Under fixed exchange rate regimes, capital inflows tend to create inflationary pressures given the expansion of the monetary base from reserve creation.
    - Under flexible regimes, they tend to appreciate the nominal exchange rate.
  - Our hypothesis is that capital account regulations help reduce upward FX pressure during booms and downward FX pressure during busts.

# SUMMARY OF THE PAPER (2 of 3)

## (2) Effectiveness of Capital Account Regulations on FX Pressure:

- ▣ Using four indices composed of capital inflow regulations, foreign exchange-related regulations, financial sector specific restrictions, and capital outflow regulations for 51 emerging and developing economies over the period 1995-2011, we find that all policy measures are associated with lower foreign exchange pressure and reduced real exchange rate appreciation.



# SUMMARY OF THE PAPER (3 of 3)

## (3) Effectiveness of Capital Account Regulations on Monetary Policy Autonomy and Crisis Resilience:

- We find that capital account regulations enhance monetary policy autonomy,
  - By enabling the authorities to raise interest rates without attracting further inflows that appreciate the exchange rate.
- Our results indicate that increasing the restrictiveness of capital account regulations in the run-up to the crisis reduces the growth decline during the crisis, thus enhancing crisis resilience.
- Finally, countries that increased the use of capital inflow regulations over 2008-11 experienced higher post-crisis growth rates.

5.

## Conclusions and policy implications

# Conclusions and implications for social and gender inequality (1 of 3)

- ❑ We find that capital account regulations are associated with lower foreign exchange pressure and reduced real exchange rate appreciation.
- ❑ Overvalued exchange rates reduce the competitiveness in non-traditional export industries.
  - Since these industries predominantly employ women (e.g. low-tech manufacturing, tradable services), **the contraction of these industries reduces female employment and bargaining power of women.**
- ❑ The contraction of non-traditional sectors is filled by:
  - Traditional commodity exports, which have lower potential for job growth and generate higher growth volatility
  - Informal sector expansion, which also does not create decent jobs and is not a source of dynamic growth.
- ❑ **The feminization of informal sector employment** → due to substitution of men for women who are more willing to accept lower pay and inferior work conditions.

# Conclusions and implications for social and gender inequality (2 of 3)

- ▣ Increasing the restrictiveness of capital account regulations in the run-up to the crisis reduces the growth decline during the crisis, thus **enhancing crisis resilience**.
  - Women suffer disproportionately during crises, both by losing their jobs more often and taking cuts in their pay.
  - **By improving crisis resilience, these regulations help avoid these adverse effects on female employment and wages.**
- ▣ Capital account regulations help reduce the volatility of economic growth by preventing excessive booms and busts.
  - **They help create a more stable employment growth, and reduce economic insecurity associated with high growth volatility.**

## Conclusions and implications for social and gender inequality (3 of 3)

- Given their effectiveness, these policy measures should be considered as part of **regular and permanent policy tools** and not be seen as instruments of last resort or temporary measures.
- Every developing country that is subject to large swings in procyclical capital flows must have the policy space to use capital account regulations as **countercyclical tools** that would serve as **a first best policy response** to eliminate the source of disturbance resulting from externally-driven capital flows.