How Does External Financing Drive GDP Growth in Developing Countries?

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Introduction

- **Neoclassical prediction**. Transfers should go from rich countries to DCs where investments are seen as more profitable.

But tangible reality conflicts with this view: capital outflows from poor to rich countries do exist (**Lucas paradox**).

- The most **appealing reason**:
  - **Returns** in LDCs are lower than expected when **adjusted for risks**. The Stiglitz Weiss (1981)'s model has brought the microeconomic foundations by considering **informational issues**.

Introduction

Some **unanswered questions:**

- Previous arguments do not explain : **“allocation puzzle**”: external capital does not necessarily flow to the most growing countries (Cf., Gourinchas and Jeanne, 2007; 2013).

- **Potential ambiguity with respect to the positive impact of external flows on economic growth**: These resources can substitute to domestic financing for the most profitable projects, leaving unfunded projects of lower quality (crowding out).

Introduction

Objective of the paper: Revisit the relationship between capital inflows and economic growth .

Several **hypotheses** are explored and tested:

- **Net capital inflows matter for growth as well as their composition** and possibly their fluctuations over time.
- Beyond the direct positive impact of capital inflows, we also have to account for **indirect effects through** the Real exchange rate (REER).
- Sources of **heterogeneity across the sample** in relation with : the level of development or the exchange rate regime.

Main findings

- **Capital inflows appreciate the REER**. A 10 percent increase in total capital inflows appreciates the REER by roughly 5 percent. The appreciation effect stemming from remittances is twice that of aid and ten times that of FDI.

- **Beyond their appreciation effect, higher capital inflows still stimulates economic growth**. A doubling of the per capita total capital inflows leads to an increase of the average annual growth by about 50% (or about 2 percentage points growth).

Outline

The rest of the paper is organized as follows.

Section 1 briefly reviews the existing literature

Section 2 analyzes the descriptive statistics and defines our econometric strategy.

Section 3 discusses the main results

Section 4 offers some concluding remarks.

Unilateral private transfers. Second largest type of financial flows to DCs after FDI.

- Beyond the ***brain drain*** migration is profitable for the country of origin

- The domestic **opportunity cost** of migrants working abroad is low

- Increase the **permanent income** of beneficiary households, sometimes stimulate *building booms*.

***Official Development Assistance*.**

- Burnside and Dollar (1997, 2000, 2002). Aid effectiveness is **conditional** on the orientation of resources to most efficient countries.

- Rajan and Subramanian (2008). **No evidence** found to support a positive and robust impact

- Arndt, Jones and Tarp (2010, 2015). A **positive impact.** They broaden the analysis to other dimensions of the social well-being.

Foreign Direct investments.

- The **robustness debated**. The outcome greatly depends on the nature of FDI (Privatization).

- **FDI-PPP**: the social benefit of FDI may require a substantial **time lag** before the supply side effects fully occur (infrastructure, mining).

- Raw materials may hamper the manufacturing diversification (**resource curse, Dutch disease)**

1- Capital inflows and their components..

Direct implications on economic growth

Short term capital inflows

- What is challenging is less the magnitude or the statistical significance than the **sign of the impact**

- In the late twentieth century some IMF experts consider that an open capital account means an incentive to improve market discipline with promising expectations (stability, additional resources).

- **Stiglitz (2000**) Capital account liberalization stimulates economic fluctuations when associated flows do not cause them.

1- Capital inflows and their components..

Indirect implications on the real exchange rate

- Net capital inflows are seen as one of the determinants increasing the **price of non-tradables**. The REER is affected differently according to the type of inflows.

- Remittances may smooth consumption. The **Risk** for **REER is quite limited**, **strong if** resources are channeled to real estate, but **negligible if** spent on imported goods.

- When the recipient of ODA suffers from supply constraints, capital inflows to consumption put more pressure on the price of domestic goods than those channeled to investments (imported goods).

1- Capital inflows and their components..

Indirect implications on the real exchange rate

- **FDIs may have a positive impact** on REER through transfers of technology, managerial know-how and other intangible assets. **However,** FDIs may consist of "pure" transfers of domestic assets. Revenues resulting from public enterprise selling can be channeled to **permanent expenditures, increasing the price of non-tradables**.

- The role of **short-term capital transactions** remains debated. They may be stationary variables if they are temporary. But they **may have a stochastic trend, be part of a long-term cycle** with a **lasting influence** on the REER.

2- Empirical methodology and net capital inflow statistics

The Blundell and Bond (1998)'s system-GMM estimator for dynamic panel is implemented. The system-GMM estimator helps reduce the endogeneity issues.

- $Y_{i,t} = \propto + \delta Y_{i,t-1} + \beta Total\ flows_{i,t} + \theta X'_{i,t} + v_i + \varphi_t + \varepsilon_{i,t}$ *(1)*

- $Y_{i,t} = \propto + \delta Y_{i,t-1} + \sum_{m=1}^{m=5} \beta_m Kflows_{i,t,m} + \theta X'_{i,t} + v_i + \varphi_t + \varepsilon_{i,t}$ (2)

- $Y_{i,t}$ stands for economic growth or REER

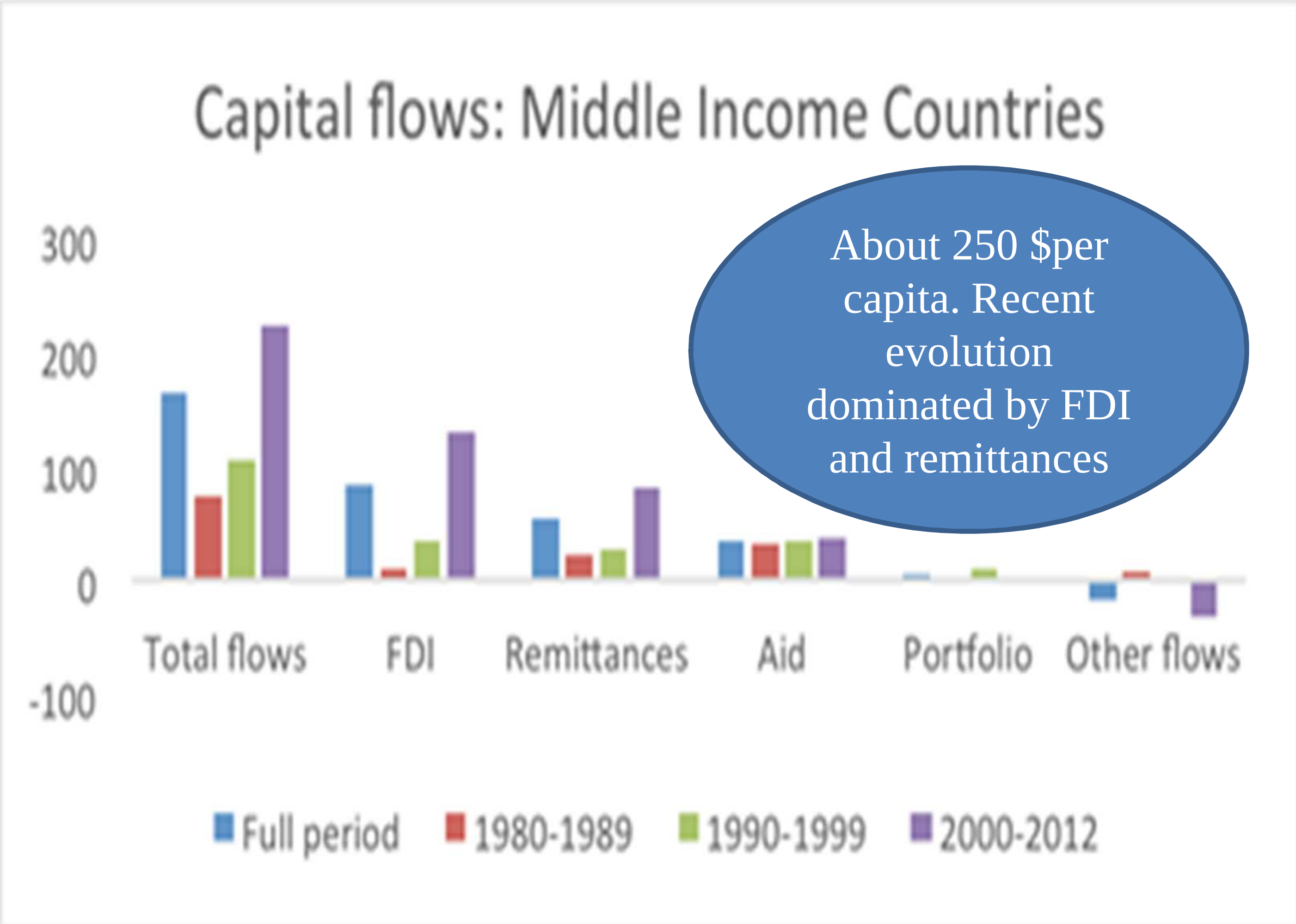
- $m = FDI,\ aid, Remittances, portfolio, other\ net\ inflows$

- $X'_{i,t}$=**Control variables**: GDP per capita, trade openness, natural resource rents and polity 2 (degree of democracy)

2- Empirical methodology and net capital inflow statistics

- **Sample coverage**: 77 low an middle income countries
- **Period**: 1980-2012.
- **Averaged periods of 5-years are considered**
- **Data sources**: WEO, WDI, SWIID

2- Empirical methodology and net capital inflow statistics
Dollars per capita



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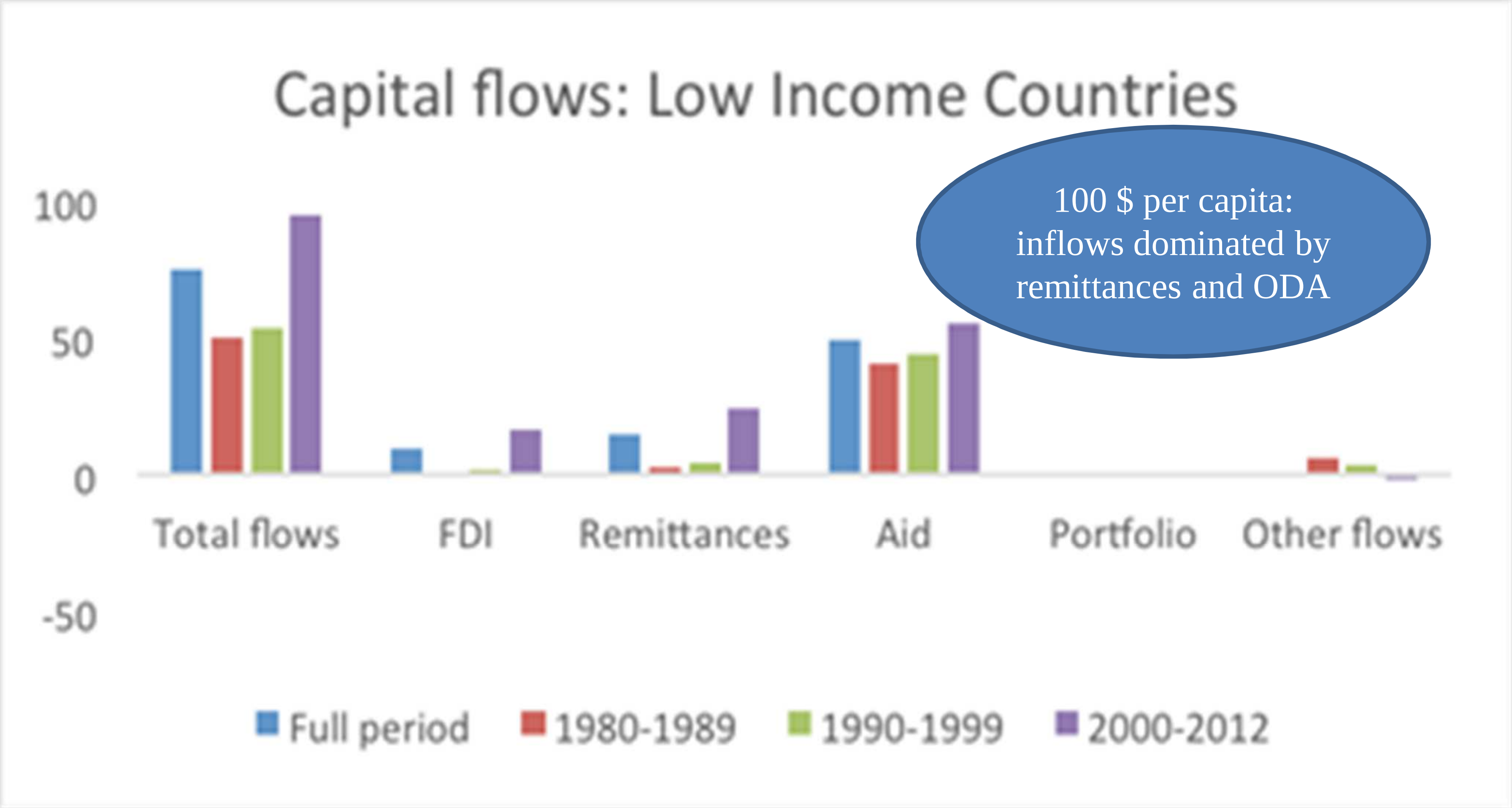
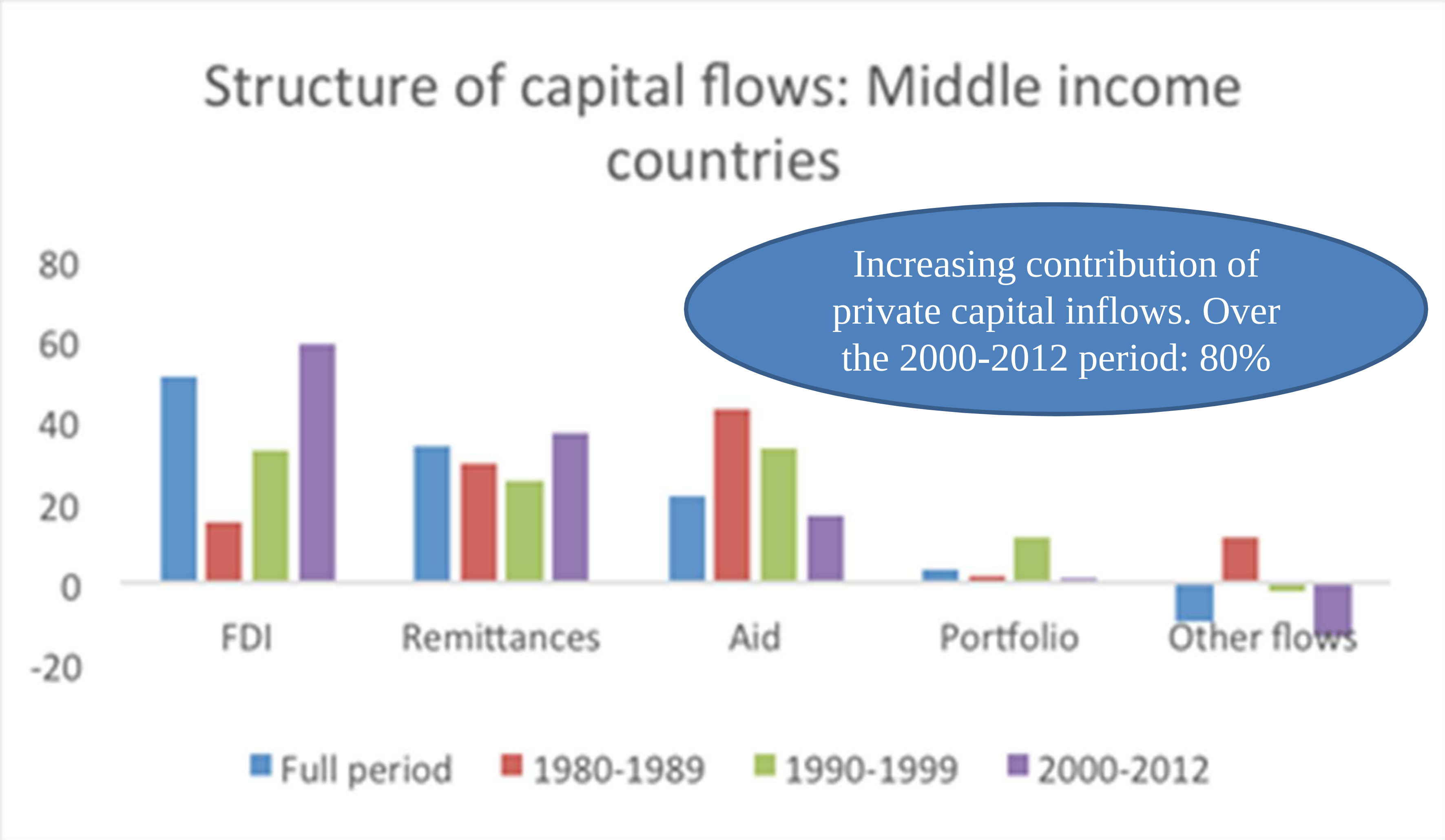
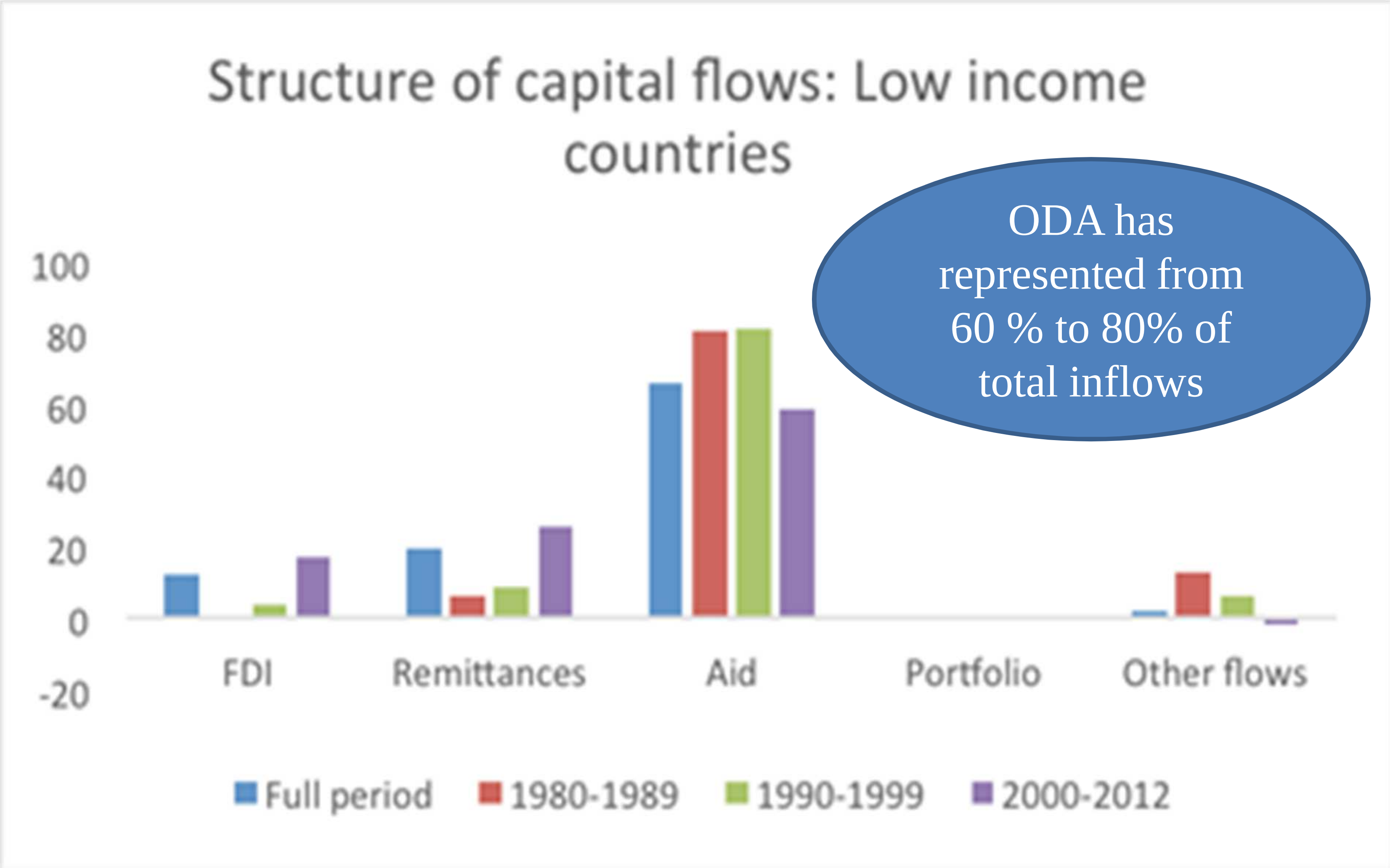


2- Empirical methodology and net capital inflow statistics
Structure (%)



Increasing contribution of private capital inflows. Over the 2000-2012 period: 80%

2- Empirical methodology and net capital inflow statistics
Structure (%)



3- Empirical results

Full sample	Impact of Total inflows	*Econometric impact with the decomposition of total capital inflows*				
		Remittances	*ODA-AID*	*FDI*	*Portfolio*	*Other flows*
REER	0.345**	NS	0.118*	0.025***	1.253***	NS
LICs	1.001***	1.264***	NS	NS	NS	NS
Economic Growth	0.415***	0.0636*	NS	0.005***	0.152***	0.004***
LICs	NS	NS	NS	NS	NS	NS

3- Empirical results
capital inflows and REER

- The econometric method is not invalidated.
- A 10 percent increase in capital inflows appreciates the REER by roughly 5 percent.
- Disentangling the total capital inflows into their different components: ODA moderately appreciates REER. *Portfolio* investments has a strong impact.
- A peg exchange rate regime mitigates the appreciation effect: efficient monetary controls to regulate domestic credit and prevent inflation pressures.

3- Empirical results
Capital inflows and economic growth

- Total capital inflows contribute to growth but their instability is not a relevant explanatory variable.

- A doubling of the per capita total capital inflows leads to an increase of the average annual growth by about 50%.

- From the positive impact of inflows to the negative one through the REER. A 100 % appreciation of the REER is associated with a 25% reduction in annual GDP growth (loss of one percentage point).

4- Concluding remarks (1)

- Public aid was initially the prevailing finance source and still remains so for low income countries. The role of ODA is now much smaller for MICs which depend on FDIs and remittances.

- Net capital inflows affect the REER and the impact is more pronounced for LICs (low supply-side capacity, appreciation of non-tradables).

- We find a strong impact of net capital inflows on GDP growth, but we do not detect a difference with respect to the level of development.

4- Concluding remarks (2)

- On average, doubling net capital inflows would lead to a net increase of average growth of about 2 %.

- If the economy well manages the indirect and negative impact of the external capital inflows through the REER, this doubling of financial resources would have led to a growth rate of 7.4 %, against the actual 3.7 % over the period 1980-2012.

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Thanks for your attention