Twenty-Third Meeting of the
IMF Committee on Balance of Payments Statistics
Washington, D.C.
October 25-27, 2010

Bilateral Cross-Border Holdings and Global Imbalances
A View on the Eve of the Global Financial Crisis

Prepared by the Research Department
International Monetary Fund
BILATERAL CROSS-BORDER HOLDINGS AND GLOBAL IMBALANCES:
A VIEW ON THE EVE OF THE GLOBAL FINANCIAL CRISIS

Gian Maria Milesi-Ferretti, Francesco Strobbe, and Natalia Tamirisa
International Monetary Fund, Research Department

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Introduction

- Two phenomena over the last decade
  - Emergence of global imbalances
  - Financial integration (growth of cross-border flows)
- Worries about global imbalances…
- …but initial transmission of the crisis through gross exposures
- Bilateral perspective key in understanding crisis transmission
- Relation between the two phenomena?
What we do in this paper

- Construct a dataset of bilateral external assets and liabilities for all the major “players” for 2007
  - US, euro area, Japan, China
  - Financial centers: UK, Switzerland, Hong Kong, Singapore, offshore centers
  - Surplus regions: emerging Asia, oil exporters
  - Large emerging markets: Brazil, Russia, India
  - Other advanced economies: Canada, Australia, New Zealand, Denmark, Norway, Sweden
  - Emerging markets in Europe
Research Questions

- Is there a relation between the geographical pattern of global imbalances and that of financial integration? Are major financial partners each other’s main creditors and debtors, and in what financial instruments?

- How do size and composition of countries’ gross and net external positions affect the transmission of macroeconomic and financial shocks?
Data strengths and weaknesses

- Strengths:
  - Network of cross-border financial linkages from a geographical (residence) perspective
  - Consistent with balance of payments data

- Weaknesses:
  - No information on currency of denomination
  - Does not necessarily measure ultimate exposures
Related work

- Kubelec and Sa (2009, 2010)
  - Bilateral positions for 18 countries, 1980-2005
  - Relies on estimation to fill gaps
- Daude and Fratzscher (2007)
  - Gravity-type equations for bilateral FDI, portfolio, and banking positions
- BIS research (Patrick McGuire et al)
- Many studies on bilateral positions for specific asset categories (portfolio, banking etc)
The Bilateral IIP Data

- Summary of the financial relationship between a country’s residents and the ROW at year-end

- Instruments
  - FDI (book or market value)
  - Portfolio (equity and debt)
  - Other investment
  - Reserves
  - Limited reporting of data on financial derivatives

- Main Data Sources
  - IMF’s Coordinated Portfolio Investment Survey (CPIS)
  - BIS locational banking statistics
  - Eurostat, OECD, UNCTAD for FDI
  - National sources (example: US portfolio liabilities, UK IIP, euro area IIP etc)

- Data reported or derived from partner country sources (very limited reliance on estimated data for FX reserves)
What do we know from aggregate data?

I. Net external positions

[Graph showing net external positions from 2004 to 2014 for US, Jpn, Chn, EMA, oil, Eur surplus, Eur deficit, and ROW.]
What do we know from aggregate data?
II. Gross external assets

- Euro Area: 23%
- United States: 20%
- United Kingdom: 14%
- Other advanced: 10%
- Japan: 9%
- Emg Asia incl China: 6%
- Offshore: 5%
- ROW: 4%
- Oil exporters: 4%
- United Kingdom: 3%
- BRI: 2%
- Euro Area: 3%
Data coverage
(in pct of total reported assets and liabilities)

Bilateral data coverage
(in percent of total identified assets and liabilities)
Gaps in data coverage
(billions of USD)

"Gaps" in bilateral data coverage
(billions of US dollars)
Missing portfolio claims on the euro area

- Oil exporters? Offshore centers? Reserve holders?
- Under-reported euro area claims?

*Table. Liabilities without an identified partner (USD bill)*

<table>
<thead>
<tr>
<th>Portfolio equity</th>
<th>Total euro area</th>
<th>Portfolio debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxembourg</td>
<td>1,100</td>
<td>France</td>
</tr>
<tr>
<td>Ireland</td>
<td>733</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Netherlands</td>
<td>271</td>
<td>Italy</td>
</tr>
<tr>
<td>Spain</td>
<td>106</td>
<td>Germany</td>
</tr>
<tr>
<td>Total euro area</td>
<td>2,271</td>
<td>1,357</td>
</tr>
</tbody>
</table>

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The United States: net position

Net foreign assets (in percent of GDP)
The United States: gross position

Foreign assets and liabilities (in percent of GDP)
United States: composition of net position

Net foreign assets (in percent of GDP)
The importance of offshore centers

Sum of external assets and liabilities (billions of US dollars)

- Oil exporters
- Singapore
- Emerging Asia
- China
- Other advanced
- Canada
- BRI
- Japan
- Offshore centers
- Switzerland
- Hong Kong
- Euro Area
- United Kingdom
- United States
The external portfolio of emerging markets: I. Assets

- Oil exp.
- Singapore
- BRI
- Emg Asia
- China
- Hong Kong

External assets (USD billions)

Legend:
- USA
- Euro Area
- Other advanced
- Hong Kong and Singapore
- Other emerging
- Offshore
Decline in value of portfolio equity claims on US, euro area, UK

Portfolio equity shock (20% decline in stock values in EUR, UK, US)
Decline in value of portfolio debt claims on US, euro area, UK

Portfolio debt shock
(20% decline in value of portfolio debt claims on EUR, UK, US)
Impact of a decline in value in claims on emerging markets

Emerging market shock
(20% decline in the value of claims on emerging markets)

- Emerging Asia
- HK and SGP
- Other

- Switzerland
- UK
- Europe
- USA
- China
- Other emerging Asia
- Other advanced
- Oil
- Japan
- Canada
- Brazil
Work in progress

- Relation between residence-based and ultimate-exposure data for claims and liabilities associated with banks

- Smaller role of international financial centers
  - Example: much smaller positions of UK banks vis-à-vis euro area than suggested by residence-based data
Summary

- Data work piece of a complex puzzle…
  - Sectoral exposures
  - Currency exposures
  - Ultimate exposures

- …data gaps still serious (particularly for offshore centers, oil exporters, emerging markets)

- ….but a useful map of cross-border financial linkages
Summary (II)

- Intriguing stylized facts
  - Lack of correspondence between net and gross positions
  - Large role of international financial centers
  - Heterogeneity in gross and net portfolio structures
    - US systematically “long equity, short debt”
  - More limited role of emerging markets

- Analysis sheds light on what can lie behind data coverage ‘holes’
Extra charts
Euro Area: composition of net position

- Japan
- Switzerland
- Oil exporters
- Canada
- China
- Singapore
- Other advanced
- Emerging Asia
- BRI
- United Kingdom
- United States
- Offshore centers
- Other Europe

Net foreign assets (in percent of GDP)

- FDI
- Portfolio debt
- Other inv
Japan’s foreign assets and liabilities

Foreign assets and liabilities (in percent of GDP)