Capital flows after the crisis: recent developments and investor motivations

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Presentation for “The Political Economy of International Money”
Federal Reserve Bank of Dallas and Southern Methodist University
April 3-4

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“Hot topic” for capital flows: Large inflows to EMEs since the global financial crisis (GFC)

• Concerns about inflows leading to excessive currency appreciation in EMEs ("currency wars")
• Potential for financial instability if flows suddenly reverse
• Research into motivations for capital flows:
  – Were capital inflows “pulled” by developments in EMEs themselves?
  – Or “pushed” by investor country/global factors including very low interest rates in AEs?
    • Actions of “reach for yield” investors
Developments in early summer 2013 with increased awareness of Fed intention to begin tapering asset purchases

- Large outflows from EME dedicated mutual funds as Treasury yields rise according to EPFR
- EME fund outflows continue into 2014
Financial market reactions

- Exchange rates of many EMEs came under pressure especially in late summer
- Similar signs of financial market stress in stock prices and bond yields/EMBI spreads
- Stabilization as many EMEs undertook policy responses including raising policy rates, intervention in FX markets
• Were these movements responses of “reach for yield” investors unwinding positions?
• More comprehensive capital flow data don’t suggest same degree of “unwind” from EME exposures
• Fund flows reflect behavior of retail investors
  – Don’t include “stickier” positions of major institutional investors (pension funds) or potentially offsetting flows from hedge funds and other managed money accounts
Get a somewhat different picture if we look at estimated total U.S. acquisitions of EME securities:

Slower purchases, but not outflows

U.S. Purchases of EME Securities

Correctly identifying U.S. net purchases of EME securities from official data (TIC securities transactions) is challenge given well-known transactions bias in TIC flows

Estimated purchases are IF staff calculations from new methodology based on changes in newly-available monthly holdings of securities by country (extracting from estimated valuation changes)
Moreover, comprehensive BOP data reported by EMEs don’t show overall net capital outflows
• How do we reconcile:
  – Financial market reactions, outflows from dedicated EME mutual funds
  – What looks like more stable portfolio responses overall?
• In the aggregate, can have little overall change in positions but with shifting composition of investors and resulting price changes
• Rapid price movements could reflect unwinding of “carry trade” positions
• Ideally would have disaggregated information on holdings and gross transactions of all parties involved in cross-border flows
What can we learn about motivations of investors from the data we do have?

• Recent work with colleagues Alexandra Tabova and Vivian Wong*
  – Did GFC and subsequent period of low interest rates encourage “reach for yield”/increased risk-taking in U.S. investors’ cross-border portfolios?
  – Or, conversely, did GFC encourage a “search for safety” given downgrades and damage to balance sheets?
    • We find that both motivations seem to have been at play

*Bertaut, Tabova, and Wong: “Reach for yield” versus “search for safety”: evidence from the U.S. bond portfolio (2014)
Focus on the cross-border bond portfolio of U.S. investors

• Detailed, security-level data of U.S. investors’ cross-border bond holdings collected through the Treasury International Capital (TIC) annual surveys for 2003-2012
  – Comprehensive: includes all foreign bonds held by U.S.-resident investors
  – Know details of individual securities held
  – Allows matching of securities held to credit ratings
  – Ability to compute actual returns to U.S. investors
Growth and composition of U.S. foreign bond portfolio

Since end-2008, holdings of foreign bonds increased $670 billion to $2.3 trillion

- Still small share of U.S. total bond portfolio
  - substantial U.S. home bias
- But foreign share has grown faster than foreign share in bond market cap: home bias has declined
- By sector: about 1/3 each government, nonfinancial corporate, financial
- Composition is important
- Draw attention to role of foreign-issued financial sector debt
  - Literature on ability of financial sector to expand supply of high-grade financial assets (Gorton, Lewellen, and Metrick (2012); Krishnamurthy and Vissing-Jorgensen (2012))
Country composition of U.S. bond portfolio

- Majority of U.S. foreign bond holdings are in securities of AFEs
- And bonds issued by AFEs account for the majority of the increase in holdings post-crisis
- EME share has increased but is still small at ~15 percent
Increase in EME holdings is more noticeable if we focus on government bonds

- Almost all of the increase in holdings of EME bonds is from government bonds, which increased $152 billion
- None of which were rated higher than single A
Credit rating shares of U.S. foreign government bond portfolio

- Overall credit quality of portfolio of foreign government bonds has deteriorated since GFC
  - Reflects downgrades
  - And active portfolio choices, including increased holdings of EME bonds
Government bond portfolio: Reach for yield?

- Compare actual returns and weighted average “high quality” share for foreign government bonds with counterfactual where weights are kept fixed at 2007-2008 average
- Return was slightly higher while credit quality was slightly lower

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* AA- or higher

** at average 2008-2009 shares
Financial bonds

- Less attention paid to financial bond portfolio
- Holdings of foreign-issued financial sector debt increased almost as much as holdings of government bonds
- Overall credit quality of financial sector debt has also declined
- But lion’s share of increase has been in high-grade debt: accounts for almost $150 billion
- Country composition has changed, with a notable increase in holding of “high quality” financial debt of selected countries, especially Australia and Canada
Financial bond portfolio: Search for safety?

- Same actual and counterfactual exercise
- Despite downgrades/difficulty in getting high credit ratings, U.S. investors were able to prevent a much more notable deterioration in credit quality of the portfolio
- But this came at some cost in terms of return

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Total foreign bond portfolio

- Portfolio reallocations moderated decline in portfolio quality
- U.S. investors gave up relatively little in terms of total return

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• Is this simply reaction of U.S. investors to changes in bond returns and risks?

• Or does it reflect changes in relative importance placed on these considerations?

• Address this question with portfolio choice model using annual panel data set of 45 countries for years 2003-2012
Portfolio Choice Model

• Dependent variable: share of country $i$ in U.S. foreign bond portfolio

• Explanatory variables:
  – individual country total returns expressed in dollars (capturing yields as well as capital gains)
  – covariance of returns with aggregate U.S. foreign bond portfolio
  – credit quality, proxied by share of highly rated bonds in countries’ new issuance
  – standard controls for market size, transactions costs, proxies for information (distance, shares in U.S. trade)
### Panel Data Model: Country Shares in U.S. Portfolio

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Statistical significance: *10% level  ***1% level

Regressions also include covariance of returns and other controls
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Concluding remarks

• Depending on part of the portfolio we look at, we see evidence of both “reach for yield” and “search for safety”:

• Post-GFC, U.S. investors actively shifted their cross-border portfolios towards:
  – Higher-yielding, lower-rated government bonds
  – Higher-rated financial bonds

• Open question: why demands have shifted in different ways
  – different types of bonds appeal to different classes of investors, and these classes have responded differently to GFC and its aftermath?
  – Or common reaction to changing risk-return trade-offs available in the market?
Concluding remarks (continued)

• End of the day: Don’t see a dramatic shift of U.S. investors into EME securities (or riskier securities more generally)

• Do see important channel for demand for “safe” financial sector debt
  – And appears that foreign financial firms have been able to fill U.S. investor demand for “safe” investment alternatives*

*Bertaut, Tabova, and Wong: The replacement of safe assets in the U.S. financial bond portfolio and implications for the U.S. financial bond home bias (2014)
And a cautionary note...

• Reminder that increased issuance of *supposedly* safe U.S. financial sector debt was a key driver in global capital flows leading up to the GFC.

• Inflows from Europe into “high-grade” U.S. financial sector debt including MBS and other structured products were as large as the purchases of Treasuries and agencies by “saving glut” countries.

• Raise a cautionary note to think more broadly about the sources and consequences of perceived risk-return trade-offs and how these play out through capital flows.