Discussion of: “From Carry Trades to Trade Credit: Financial Intermediation by Non-Financial Corporations” by Bryan Hardy and Felipe Saffie

Victoria Nuguer

Inter-American Development Bank
Department of Research and Chief Economist

Current Policy Challenges Facing Emerging Markets
Santiago, Chile

July 25, 2019

1The views expressed herein are those of the author and do not necessarily reflect those of the Inter-American Development Bank. I would like to thank Daniel Guzmán for excellent research assistance.
Overview

Objective

Using a unique Mexican listed-firm dataset, the paper studies financial intermediation by non-financial firms. The goal is to understand the potential buildup of currency risk during periods of more carry trades opportunities and the implications on the real activity.
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Main Message
Firms use FX liabilities to fund ST peso assets, mainly accounts receivable. FX indebtedness ↑ in response to ↑ of the interest rate differential. When the peso depreciates, firms are more willing to ↓ investment than their trade credit.
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Main Contribution
- Unique database for Mexican listed firms
- Firms take advantage of the opportunities to engage in carry trades and play the role of financial intermediaries through trade credit
Understanding the mechanism

IRD

FX Liabilities
  Loans
  Accounts payables
  Bonds
Understanding the mechanism

<table>
<thead>
<tr>
<th>FX ST Assets</th>
<th>FX Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Financial Accounts Receivable</td>
<td>Loans</td>
</tr>
<tr>
<td>Inventories</td>
<td>Accounts Payables</td>
</tr>
<tr>
<td>Other ST</td>
<td>Bonds</td>
</tr>
<tr>
<td>$0.21</td>
<td>$1</td>
</tr>
</tbody>
</table>

- IRD Mostly used to finance ST assets.
Understanding the mechanism

**FX ST Assets**
- Cash and Financial
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**Pesos ST Assets**
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- Accounts payables
- Bonds

Mismatch

IRD

Mostly used to finance ST assets

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$0.19

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 Mostly used to finance ST assets

IRD

- $0.21
- $0.19
- $0.42

- $1

I have explained the mechanism using a causality story but they run regressions/correlations...
What do they do?

1. How do positions in ST FX liabilities respond to carry trade opportunities and the risk level?

\[
\frac{\Delta \text{Position}_{it}}{\text{Total Asset}_{it-1}} = \alpha_i + \sum_{k=0,1} \delta_k (IRD_{t-k} + Vol_{t-k}) + X_{it-1}\beta + \epsilon_{it}
\]

↑ \(IRD_t\) ↑ ST FX liabilities (Loan and Trade) (−) \(IRD_{t-1}\) unwind

2. How do these increases (changes) relate to changes in ST FX and Peso assets?

\[
\frac{\Delta \text{ST Asset}_{it}}{\text{Total Asset}_{it-1}} = \alpha_i + \alpha_t + \gamma \frac{\text{CashFlow}_{it}}{\text{Total Asset}_{it-1}} + \sum_{\text{type}} \beta_{\text{type}} \frac{\Delta \text{Borrowing}_{\text{type}it}}{\text{Total Asset}_{it-1}} + \epsilon_{it}
\]

The origin of currency mismatches.
What do they do?

3. How are investment, employment and profits affected by a depreciation episode given the carry trades behavior of firms?

\[ Y_{it} = \alpha_i + \alpha_t + \beta_0 \Delta STFXP_i \times Shock_t + \beta_1 STFXP_i \times Shock_t + X_{it-1} \beta + \epsilon \]

A diff-in-diff design controlling for the level effect.
Comments

1. Relevance of trade-credit, EMEs vs. AEs
2. Technical related comments
3. Mexico specific results
4. Taking advantage of the dataset – Future work
5. Minor comments
1. Relevance of trade credit, EMEs vs. AEs

- Trade credit is inter-firm financing relationship that takes place outside of “formal” credit markets and the banking system. It corresponds to accounts payable/receivable in the balance sheet statement of a firm.

- TC represents a non-negligible share of total assets and ST credit in AEs (between 18 and 25% of firms’ total assets). However, access to commercial banks remains the primary source for external financing.

- Working capital financed with trade credit as a percentage of external financing is on average 52.52% (37.41%) for EMEs (AEs).

Table: Share of Working Capital and Investment Financed with Trade Credit as a Proportion of External Finance—AEs and EMEs

<table>
<thead>
<tr>
<th></th>
<th>Mean AEs</th>
<th>Mean EMEs</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working K Financed</td>
<td>37.14</td>
<td>52.52</td>
<td>66.04</td>
</tr>
<tr>
<td>with Trade Credit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>10.73</td>
<td>37.14</td>
<td>63.93</td>
</tr>
<tr>
<td>Financed with Trade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Finkelstein Shapiro, González Gómez, and Nuguer (2019)
2. Technical related comments

One interesting result is the unwinding of the carry trade effects; for short-term FX assets, the unwinding is greater than the IRD initial effect... or almost the same. However, for short-term peso assets, the unwinding is barely partial.

Which is the rationality behind this? Is this another sign that firms prefer to continue giving trade credit to other firms?
2. Technical related comments

1. One interesting result is the unwinding of the carry trade effects; for short-term FX assets, the unwinding is greater than the IRD initial effect, or almost the same. However, for short-term peso assets, the unwinding is barely partial.
   - Which is the rationality behind this? Is this another sign that firms prefer to continue giving trade credit to other firms?

2. Is the growth rate differential the driver of capital flows?
   - Maybe growth rate differential between countries is the driver of capital flows.
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2. Is the growth rate differential the driver of capital flows?
   - Maybe growth rate differential between countries is the driver of capital flows

3. The shock to study the real effects is associated with the 2008 financial crisis
   - the shock might have changed the firm’s network within the sample, specially with foreign suppliers...
   - maybe you should try to find another way of looking at it
3. Mexico specific results

- There are some elements very specific to Mexico... and I wonder how idiosyncratic the results are and if they can be extrapolated to other EMEs.
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  1. Non-financial firms in Mexico are not required to notify the central bank of their issuance of foreign currency debt – unlike Chile and Colombia
  2. The high integration of Mexico in the value chain with the U.S. makes its firms to have greater availability of collateral to take credits in USD (specially, when we only look at the firms listed on the stock exchange)
  3. Very high level of firms that are not integrated into the banking sector, making it easier (but in general more expensive) to borrow from big firms
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3. Mexico integration with the U.S.

Share of exports (imports) of intermediate goods to (from) the U.S. to total exports (imports). Source: OECD.
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3. Financially-excluded firms in LAC

Bank credit to nonfinancial private sector and share of firms with credit line

\[ \rho = 0.9361 \]

- ARG-2006
- ARG-2010
- COL-2010
- ARG-2017
- BRA-2009
- CHL-2006
- CHL-2010
- COL-2006
- COL-2017
- MEX-2006
- MEX-2010

Bank credit to private non-financial sector to GDP ratio (%)
4. Taking advantage of the dataset

- **Monetary policy shocks in Mexico** Is it possible to update the database from 2015 onwards? This update would allow to evaluate the response of the results to changes in the monetary policy stance.

- **Matching the dataset with prices** Which are the consequences of the behavior of these firms on their pricing decision? Following Finkelstein Shapiro, González Gómez, and Nuguer (2019), this paper’s results will imply that firms that perform more aggressively carry trade will tend to move their prices.

- **Exporting firms and dollar indebtedness** Are the firms that export and that are more integrated in the value chain those that are more indebted in dollars? Is it possible to exploit this relationship? Is this an expected result given that they are listed firms?
5. Minor Comments

1. Over the 2012-2015 FX portfolio, 90% ST assets. So, all FX assets are ST for the entire analysis period. Isn’t this a very strong assumption? Less uncertainty in periods such as 2005-2008 could generate more incentives for LT FX investments.

2. Can the definition of exporter vary from quarter to quarter or is it constant throughout the analysis period?

3. The suppliers that place trade credit in dollars are all foreign firms?

4. In equation (1), why normalize with total assets and not with sales or other control?

5. With respect to the results in column 2 of Table 3, why do you talk of loans and trade credit as a whole when the latter is the most important?

6. Interest rate data is specific to each loan? is a weighted average within the balance sheet for each currency? what is the raw data available?

7. Could sales be included in the initial analysis of the real effects (Tables 11 and 12)?
Final thoughts

- Very interesting paper, very well written and polished – Congratulations!
- We should use the dataset for more projects!
- Could we try to analyze the consequences of implementing a similar policy to the one in Chile or Colombia... would that change the level of carry trade that Mexican firms perform? and specially, would that change the firm’s role of financial intermediaries?