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Discussion | Global Risks in the Currency Market
by George Panayotov

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Background to Currency Risks

• An important recent literature in foreign exchange markets has taken great strides in deepening our understanding of currency excess returns
• Lustig, Roussanov and Verdelhan (RFS, 2011)

\[ E[R_{i,t+1}] = \beta_{i,1}\lambda_{dol} + \beta_{i,2}\lambda_{slope} \]

→ currency excess returns can be understood in a standard linear return-beta relationship once currency-specific factors are developed
→ two currency-specific factors can account for the cross-section of currency excess returns:
  1. a “dollar” factor: average return of all currencies against USD
  2. a “slope” factor: return on the currency carry trade

But let’s take a deeper look…
Currency-Specific Risk Factors

- Lustig, Roussanov and Verdelhan (*RFS*, 2011)

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Interpretation: “global” risk premium. Non-diversifiable common risk to which countries have heterogenous exposure

\[ \beta_{i,2} \] will vary substantially
Currency-Specific Risk Factors

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\[ E[R_{i,t+1}] = \beta_{i,1}\lambda_{dol} + \beta_{i,2}\lambda_{slope} \]

Interpretation: “domestic” risk premium. E.g., a “dollar” risk premium for the U.S. investor. Compensates for “home country risk”

- “yen” risk premium for Japanese investor, “sterling” risk premium for British investor etc...

- In the paper’s theory, \( \beta_{i,1} \) equals 1 no matter which FX is purchased

Interpretation: “global” risk premium. Non-diversifiable common risk to which countries have heterogenous exposure

\[ \beta_{i,2} \] will vary substantially
A Can of Worms?

- Verdelhan (JF, 2018)
- The “dollar” factor is a global factor
  - Not all currencies have a beta of 1 on the dollar factor
  - Sorting currencies by their dollar beta generates a large spread in average currency excess returns
- But what about the previous home factors?
  - Are the yen factor, sterling factor, Kazakhstan tenge factor all global (systematic) factors as well? Is this the new “factor zoo”??
This Paper

- So where does this paper fit in this story?
- Re-examines the role of the “dollar” factor as a global factor
  - But takes a different approach to Verdelhan (JF, 2018)
  - Uses numeraire invariant test portfolios
- Unconventional approach but I like it!
  - Quasi *domestic* experimental setting
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**Example 1**: Buy $1 Facebook share

**American** investor gross return:

\[(1+r)\]

**Japanese** investor gross return:

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**Japanese** investor gross return:

\[(1+r)(1+e)\]

**Example 2:** Buy $1 Facebook share and short sell $1 Apple share

**American** investor gross return:

\[(1+r_{FB}) - (1+r_{AAPL})\]

**Japanese** investor gross return:

\[(1+r_{FB})(1+e) - (1+r_{AAPL})(1+e)\]

\[\approx (1+r_{FB}) - (1+r_{AAPL})\]
Main Findings

1. “Dollar” factor is important for explaining currency excess returns
2. But not all the time!
3. There is a regime structure in the pricing ability of the “dollar” factor.
   - The “dollar” factor determines currency excess returns only when the U.S. interest rate is relatively low (i.e., when AFD>0)
The Rise and (unexpected) Fall of the Dollar Factor

Primary issue: confusion over the central message of the paper
The Rise and (unexpected) Fall of the Dollar Factor

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*Rise* of the Dollar factor
# The Rise and (unexpected) Fall of the Dollar Factor

Primary issue: confusion over the central message of the paper

## Rise of the Dollar factor

Empirical. Q. How successful is the “dollar” factor?

A. Good (at times) → regime model

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<td>0.69</td>
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<td>0.35</td>
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Theoretical. Q. Can a modified version of Lustig et al. (2014) account for these results?
A. Yes! Simulations of the model match up well.
The Rise and (unexpected) Fall of the Dollar Factor

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Fall of the Dollar factor
The Rise and (unexpected) Fall of the Dollar Factor

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**Fall of the Dollar factor**

- Efforts are made to then distance the “dollar” factor from the model

  “…the dollar’s pricing ability is built *mechanically* into the modified LRV model, hence the dollar factor (DOL) may not represent a separate source of global risk”

- A search begins for new factors among a large set of candidates

  “*global risks still present a challenge to the empirical research of the currency markets*”
Suggestions

1. Can the analysis be framed in a different way? *i.e.*, *don’t throw the baby out with the bathwater.*

   - We know the “dollar” factor is not the real fundamental factor (it’s a proximate factor). But why down play it’s pricing ability?
   - Perhaps better to ask: what are the macro-fundamentals driving the time-variation in the importance of the dollar factor?
Suggestions

1. Can the analysis be framed in a different way? *i.e.*, *don’t throw the baby out with the bathwater.*
   - We know the “dollar” factor is not the real fundamental factor (it’s a proximate factor). But why down play it’s pricing ability?
   - Perhaps better to ask: what are the macro-fundamentals driving the time-variation in the importance of the dollar factor?

2. Can this help tame the “home-country/systematic” factor zoo?
   - We don’t want 175 different “home country” global factors
   - Is Dollar the only “home country risk” really worth considering a “global” factor? Use the numeraire invariant portfolios to rule out others.
   - If so, can that tell us something new about the “yen” factor, “sterling” factor, “tenge” factor etc?
Conclusions

• I enjoyed reading the paper. Must read for anyone interested in better understanding currency returns

• Clever idea to use zero-cost portfolios – turns global asset pricing question into a domestic asset pricing question since everyone has the same returns.
  • Could more be done to exploit this technique?

• Interesting new findings on the “dollar” factor. Contributes to recent evidence (Verdelhan, JF 2018).

• But I found the final message surprising/confusing. Seems to build a new/alternative case for the dollar factor only to then discard it.
  • Could the message focus on fundamentals of the dollar factor?