Safe and Not-so-Safe Currencies

Overview of recent research on the determinants of foreign exchange rates

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Turbulent times!

Oil prices down
Turbulent times!

Weaker Norwegian krone ... and Russian ruble
Turbulent times!
Stronger US dollar against (almost) “all”
Turbulent times!

... and policy “helping” as well  (dollar not stronger against Swiss franc!)

![Graph showing the relationship between various currency pairs from 2014 to 2015]
Determinants of Exchange Rates?

Can FX research tell us which currencies are “safe”?

1. Macroeconomic fundamentals
   (Meese and Rogoff, 1983; Cheung et al., 2005)

2. Order Flows
   (overview Evans, 2011; Lyons, 2001)

3. (Global) Risk Factors
   (e.g. Lustig et al., 2011; Verdelhan, 2013; Menkhoff et al., 2012a,b, ++)
   (overview Burnside, 2012)
Failure of Macro Fundamentals

Int. rates don’t explain FX  (“Disconnect puzzle”)

Figure: Adj. $R^2$ from FX-return on int. rate differentials (1999-2011)
Determinants of Exchange Rates?

Can FX research tell us which currencies are “safe”?

1. **Macroeconomic fundamentals**: *On average* little explanatory power (Meese and Rogoff, 1983; Cheung et al., 2005) (but “Scapegoats” have, see Fratzscher et al., 2015)

2. **Order Flows**
   (overview Evans, 2011; Lyons, 2001)

3. **(Global) Risk Factors**
   (e.g. Lustig et al., 2011; Verdelhan, 2013; Menkhoff et al., 2012a,b, ++) (overview Burnside, 2012)
Order Flow

Figure: Adj.$R^2$ from FX-return on order flow (1999-2011)
Order Flow

Figure: Adj.$R^2$ from FX-return on order flow (1999-2011)

Average: Fundamentals
Order Flow

Figure: Adj.$R^2$ from FX-return on order flow (1999-2011)
Determinants of Exchange Rates?

Can FX research tell us which currencies are “safe”? 

1. **Macroeconomic fundamentals**
   
   (Meese and Rogoff, 1983; Cheung et al., 2005)

2. **Order Flows: strong explanatory power**
   
   (overview Evans, 2011; Lyons, 2001)

3. **(Global) Risk Factors**
   
   (e.g. Lustig et al., 2011; Verdelhan, 2013; Menkhoff et al., 2012a,b, ++) 
   
   (overview Burnside, 2012)
Risk Factors

\[ r_{i,t} = \alpha + \beta_i \times \text{RiskFactor}_t + \varepsilon_{i,t}, \quad t = 1, \ldots, T \]

\[ E[r_i] = \lambda \times \beta_i + \varepsilon_i, \quad i = 1, \ldots, N \]

\[ \beta_i: \text{Risk Sensitivity} \quad \lambda: \text{Risk Premium} \]

- Create portfolios by sorting currencies
- Go long “High” and short “Low” portfolio
- **Risk Factor**: Return on Long-Short strategy
Risk Factors

Figure: Adj.$R^2$ from FX-return on Risk Factors (1999-2011)
Risk Factors

**Figure:** Adj.$R^2$ from FX-return on Risk Factors (1999-2011)
FX Risk Factors

“Financial” factors:
- Carry
- “Market”
- Volatility
- “Variance risk”
- Momentum
- Value
- Liquidity

“Macro” factors:
- Commodity
- External imbalances
- Sovereign risk (CDS)
- Macro uncertainty

... and other monkeys in the factor-jungle
Implications for NOK? Finance

Is NOK carry? Momentum? Value? Or Commodity?

Summary of sensitivities to strategies ($\beta_{NOK}$)

- **Carry?** Closer to AUD than CHF&JPY, but more SEK’ish
- **Commodity?**
  - (a) Surprisingly weak factor
  - (b) Again, closer to SEK than to AUD. But more than CAD
- **Value:** Loads strongly on Value (like CHF)
- **Volatility:** Among the most exposed to volatility (AUD extreme)
- **Momentum:** Weak factor! NOK not special
Implications for NOK? Macro

Is NOK a Safe Haven Currency? **No!**
- Typically depreciate as Volatility/Uncertainty/Risk Aversion increases (and reference assets fall)!

Is Norway a Solid Economy? **Yes!**
- Net creditor countries appreciate in bad times
- Worsening of a country CDS spread depreciates the currency
  - NOK more like CHF than eg. GBP or MXN

What is missing? A good understanding of **Liquidity!**
Thank you!
References I


References III


References IV


References

Coudert V., Guillaumin C., Raymond H., 2014. Looking at the other side of carry trades: Are there any safe haven currencies? Working paper, CEPII.


References VIII


References


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