Discussion of "Variance Risk Premiums in Emerging Markets"

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December 2018
Variance Risk Premium (VRP)

- Difference between risk-neutral expectation and physical expectation of return variance
  
  \[ VRP_t = E_t^Q[\sigma^2_{r,t+1}] - E_t[\sigma^2_{r,t+1}] \]

- State variable that measures economic uncertainty

- Bollerslev, Tauchen, Zhou (2009)
  
  - Captures risk premium related to consumption growth shocks
    - Volatility shocks
    - Volatility-of-volatility shocks
Empirical Evidence: Return Predictability

- VRP = Implied Variance (IV) - Realized Variance (RV)

- VRP predicts US stock returns
  - Bollerslev, Tauchen, Zhou (2009)
  - Dreschler and Yaron (2011)

- Predictability primarily in the short-horizon
  - month to a quarter

- Predicts stock returns in developed markets
  - Bollerslev, Marrone, Xu, and Zhou (2014)
This paper: Emerging Markets VRP

- Construct VRP for emerging markets

- Short data series for IV
  - Use Lynch and Wachter (2013) sample-extension

- Market weight country-level VRP to obtain
  - Global VRP
  - Developed VRP
  - Emerging VRP
Emerging VRP Return Predictability

- Global VRP predicts individual market returns
  - Captures commonality in risk premium

- Developed VRP predicts short-horizon returns
  - High frequency variation in expected returns

- Emerging VRP predicts medium-horizon returns
  - Relatively low frequency variation in expected returns
Additional Tests

- Panel Regressions: Returns are cross-sectional correlated
  - Cluster standard errors by month - Peterson (2009)
  - Bollerslev et al (2014) two-way clustering leads to similar findings
  - For completeness - two-way cluster

- Incremental explanatory power over other predictors
  - Prior papers show VRP is different from other predictors
  - Is emerging market VRP different given the predictive horizon is similar to DY etc.,
Potential Story

- Consider aggregate global consumption growth
  - Includes both emerging and developed markets


- Different duration shocks to consumption growth volatility
  - Short lived
  - Long lived shocks
Potential Story

• Single global VRP - Captures risk premium of both shocks

• Is it possible to isolate short and long-term shocks?

• Longer term shocks to global consumption
  ├── Emerging consumption exposed to long term shocks
  │    ├── Trade links, Global risk-appetite/Capital flows
  └── Short term shocks to global consumption
     └── Developed consumption less exposed
Suggestion

• **Construct global return series**
  - Market-weighted returns of individual market returns
  - One time series instead of panel of returns

• **Replicate the results of panel in time series**
  - Global VRP predicts global returns
  - Developed VRP predicts short term returns
  - Emerging VRP predicts for long term returns
Summary

• Good paper

• Shows Emerging VRP has predictive power
  ▶ Market returns
  ▶ Currency
  ▶ Flows

• Suggestion: Global consumption with ST and LT risks