
Discussion of
Volatility Risk Premia and Exchange Rate
Predictability

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Volatility Risk Premia

Key finding

- FX variance “risk premium” proxy = (backward looking) realized volatility - implied volatility
- Strongly negative variance “risk premium” \approx High cost of volatility insurance
- VRP strategy = Cheap-vol-insurance currencies - expensive-vol-insurance currencies
- VRP strategy has high returns in short run and low returns in long run

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Volatility Risk Premia

- ① Measurement and interpretation
- ② Properties of VRP strategy returns
- ③ Explanations

Measurement and interpretation

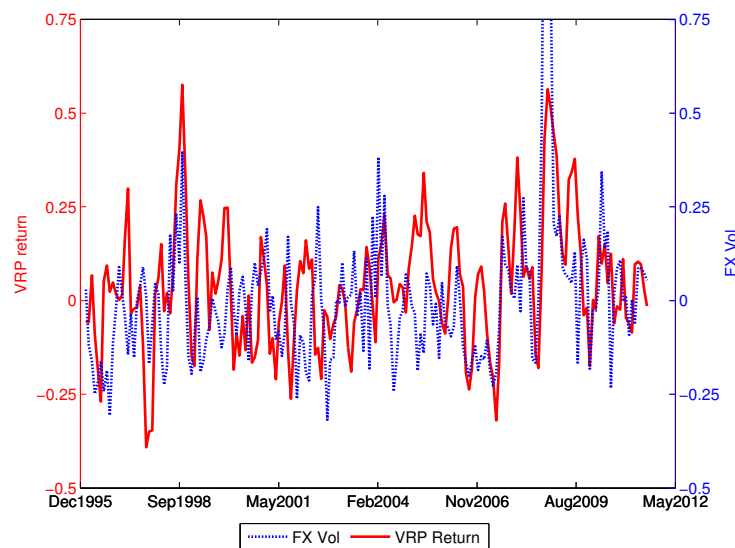
- Paper emphasizes “exchange rate return” and “spot rate predictability” rather than excess returns
 - Relevance (for asset pricing) of “exchange rate return”?
- Variance risk premium proxy = Past 12-month realized volatility – implied volatility
 - Backward looking volatility likely a poor proxy for current expected volatility
 - Any currency with big rise in expected volatility will end up in expensive-vol-insurance bucket
 - Examine alternative sorting variable: Past 12-month realized volatility – last month volatility?
 - The latter could be evaluated over much longer sample period

Properties of VRP: Relationship with carry trade

- Low correlation of VRP and carry trade: VRP + carry close to MVE
- VRP returns revert at holding periods greater than a few months, carry returns do not
- Reverse peso problem?
 - Sharpe ratios

	VRP	Carry
Full sample 1996-2011	0.48	0.61
Excluding Aug-Oct 1998 and Sep-Nov 2008	0.29	0.89

Properties of VRP: Does well when volatility shoots up



(3-month moving averages)

Properties of VRP: Does well when volatility shoots up and subsequently

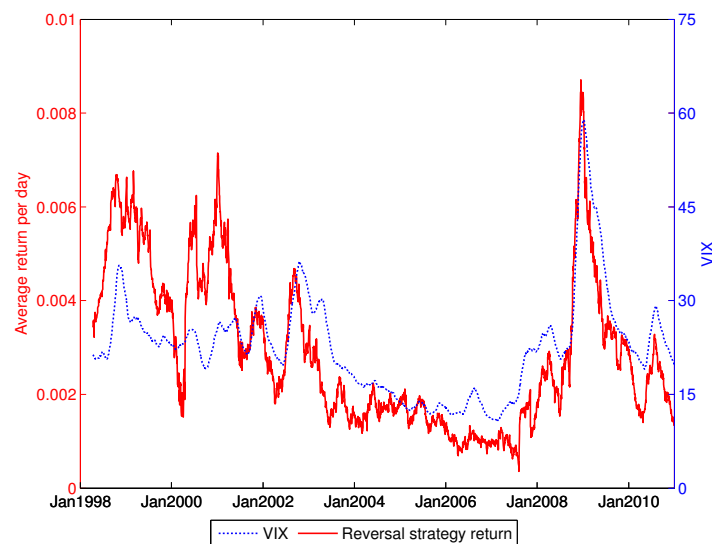
- Innovations in FXVol ξ_t . Monthly data.

$$VRP_{t+k} = a + b\xi_t + u_{t+k}$$

k	b	adj. R^2
0	0.16 (0.07)	0.04
1	0.10 (0.06)	0.01
1 + 2 + 3	0.27 (0.12)	0.04

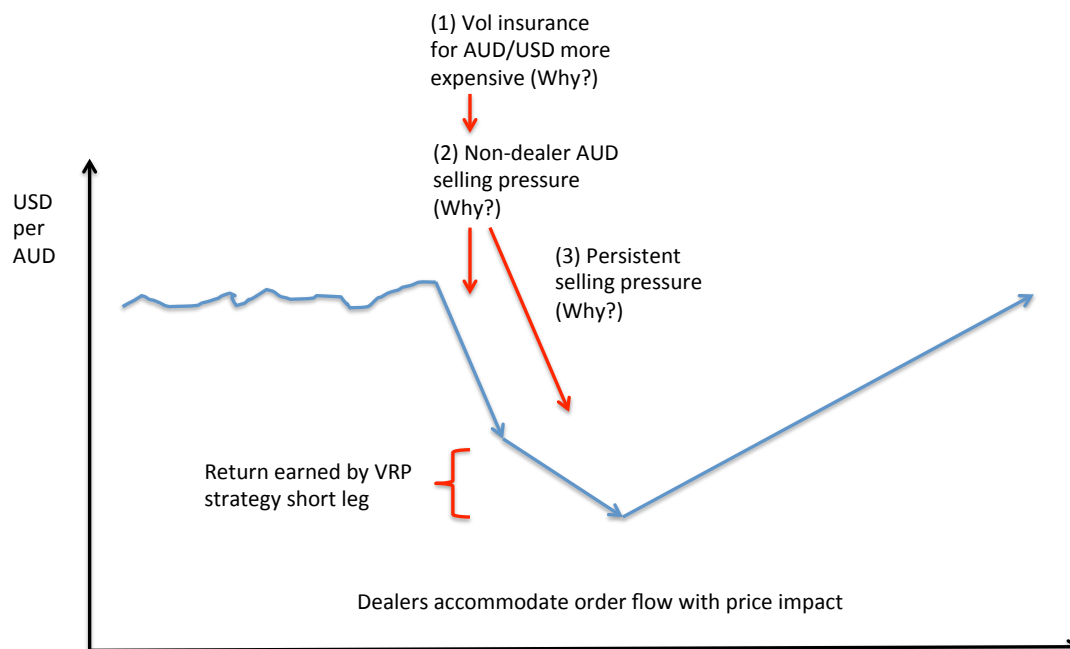
- Paper: VRP does well in recession periods

Some similarity: Liquidity provision strategy in equity markets



from Nagel (2012, RFS). (3-month moving averages)

Explanation proposed in the paper



(1) Why is volatility insurance more expensive for some currencies?

- Paper: “Time-variation in the amount of arbitrage capital” available to volatility insurance providers
- Might help explain *time-variation* in conditional expected VRP strategy returns, but does not explain *cross-sectional* differences between currencies
- Does *volatility* of high-insurance-cost currencies co-move more strongly with global volatility? (Paper only checks for co-movement of FX *returns* with volatility)
- Or, again, perhaps variance risk premium proxy just picks up change in expected volatility, not a risk premium?

(2) Why does more expensive volatility insurance lead to selling pressure in a specific direction?

- Paper: “Given the high cost of volatility insurance, natural hedgers scale back on the amount of spot currency they are willing to hold”
- Do natural hedgers (NH) *hold* currency? They presumably hold options, swaps, forwards.
- Suppose NH hedge with options and reduce demand for options when options become “expensive”
- Possibility 1: NH replace options with swaps/forwards,
 - Offsetting effects on hedging demands of option dealers and swap/forward dealers
 - Not clear that there is any change in net demand

(2) Why does more expensive vol insurance lead to selling pressure in a specific direction?

- Possibility 2: NH abandon the hedge → change in net demand as dealers abandon their hedges. But which direction was NH's hedge?
 - Exporters vs. importers?
 - Foreign corporations vs. U.S. corporations?
 - Foreign asset owners vs. domestic asset owners?
- Weak link in the story: Not clear how one can establish a *directional* prediction from option expensiveness to spot selling pressure

(3) Why is there persistence/delay in price pressure?

- Persistence of the order flow coming from “natural hedgers”?
- Dealers/arbs don't (or at least ex-post did not) fully anticipate the persistence of the order flow?
- Second weak link in the story

Wrap up

- Interesting, novel facts about FX returns
- Some concerns about reverse peso problem
- VRP strategy returns resemble returns from a liquidity-provision strategies in other markets
- But it is difficult to come up with a coherent explanation that plausibly applies to the VRP strategy