

## EXPERT SESSION 3: MRP

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**Question 1: What is your view on the weight of evidence about whether the MRP varies through time?**

- $MRP_t = E[R - R_f]$  (unconditional) or  $MRP_t = E_t[R_{t+1} - R_{ft}]$  (conditional).
  - Theory:  $MRP = risk\ aversion \times risk$
- Evidence: price volatility and return predictability
- Campbell-Shiller decomposition:  $dp_t \approx E_t[r_{t+1} - r_{ft}] - E_t[\Delta d_{t+1} - r_{ft}]$ 
  - $dp_t \neq constant \rightarrow$  at least one of div growth and MRP *must* vary through time.
- US: 100% of long-run variation in  $dp$  attributable to MRP (Cochrane, 2008, 2011)
- Australia: 66% (Rangvid et al., JFQA 2014)

- Caveats
  - (i) statistical significance marginal
    - but economic significance large
    - inability to reject null doesn't mean acceptance of null
    - dividend growth unpredictable (less so for Oz)
  - (ii) works poorly out of sample (more serious)

## **Answer**

- Unless laws of arithmetic have been repealed, extremely difficult to explain observed price behaviour without a time-varying conditional MRP.

**Question 2: If you think the evidence suggests that the MRP varies through time, how does it vary?**

- The 64K question! Evidence essentially silent.
- Shiller: most time variation in MRP represents irrational exuberance or gloom.
- Fama/Cochrane: most time variation in MRP represents rational variation in risk and risk aversion.
- Many candidate variables proposed (price ratios, interest rates, credit spreads, *cay*), but out-of-sample forecast power is low: individually (Campbell & Thompson, RFS 2008), combined (Rapach et al, RFS 2010) and machine learning (Gu et al, 2020).

**Answer**

- I don't know. Nobody does.