# "Idiosyncratic financial risk and a reevaluation of the market risk-return tradeoff"

## Sung Je Byun, Johnathan Loudis, Lawrence Schmidt

Discussion by:

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[1] I would like to thank Jade Peng for excellent research assistance.

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⇐ This title tells how much we have tried!

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  ↳ A realistic marginal investor also considers other wealth (e.g., labor) that contribute to her consumption. **"Omitted factor"**

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**1. Time series:**

More positive and significant GARCH-in-mean coefficient.

$$r_{t+1} = \phi_0 + \phi_1 \cdot r_t + \gamma \cdot \sigma_t^2 + u_{t+1},$$

$$u_{t+1} = \sigma_t v_{t+1},$$

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|---|---|---|---|---|
| *Panel A: GARCH* | | | | |
| Variance ($\sigma_t^2$) | $\gamma$ | 2.47 | 7.98*** | 7.01*** |
| | | (2.01) | (2.61) | (2.54) |
| | $\gamma^{VMF} - \gamma^{DMF}$ | | -5.51 | -4.53 |
| Volatility ($\sigma_t$) | $\gamma$ | 0.19 | 0.68*** | 0.56*** |
| | | (0.18) | (0.22) | (0.20) |
| | $\gamma^{VMF} - \gamma^{DMF}$ | | -0.49 | -0.38 |
| *Panel B: GJR-GARCH* | | | | |
| Variance ($\sigma_t^2$) | $\gamma$ | 1.01 | 4.17** | 5.29*** |
| | | (1.88) | (1.67) | (1.94) |
| | $\gamma^{VMF} - \gamma^{DMF}$ | | -3.16 | -4.28 |
| Volatility ($\sigma_t$) | $\gamma$ | 0.15 | 0.44*** | 0.49*** |
| | | (0.19) | (0.16) | (0.17) |
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| *Panel C: E-GARCH* | | | | |
| Variance ($\sigma_t^2$) | $\gamma$ | 1.61 | 6.17*** | 5.78** |
| | | (1.88) | (2.08) | (2.26) |
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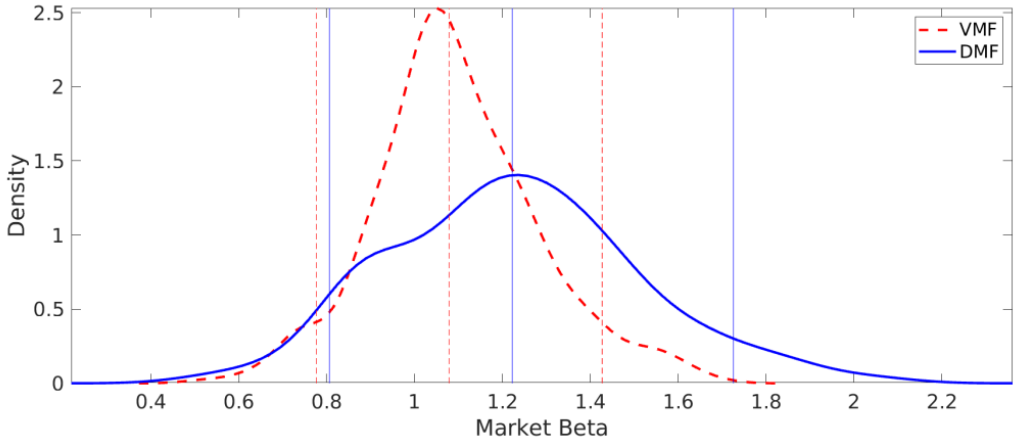
**2. Cross section:**
Wider distribution of DMF-based market betas; explains more variation in the CS.



# Nice paper!

- **What I like:**

  ↬ New, intuitive empirical approach to resolve the risk-return trade-off puzzle.
  ↬ Empirics are very carefully done and explained, involving multiple methodologies to examine the puzzle.

- **My extending thoughts:**

  1. Interpretations & links to economics
  2. Empirics
  3. Streamlining

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- ↬ **Consider** testing the wedge on other types of risk premium state variables/determinants (e.g., preferences, financial market conditions, policy path etc)
- ↬ **Even more interesting (might be a separate paper):** Start with market ret; more directly estimate a part of it that "maximally" explains future changes in the economic conditions / financial conditions / non-real variables (up to $h$).

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↬ The empirical literature has used other **CV proxies** (other than GARCH), other **horizons** (other than monthly), and other **conditioning variable** (other than econometricians' perspective) to prove $\gamma$ can be significant and positive. Is GARCH, e-GARCH, or GJR-GARCH (which has been rejected and improved upon) still the best empirical benchmark to have?

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↬ Suggestion (1): Consider other risk-return tradeoff empirical construct that the literature has considered - parametric (like GARCH) or not. For instance, VMF in the first column should become significant when we consider long-term VMF, even using past monthly market variance; this actually helps the paper because the remaining systematic information in long-term VMF is likely macro-related.

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| $(\sigma_t)$ | | (0.18) | (0.22) | (0.20) |
| | $\gamma^{VMF} - \gamma^{DMF}$ | | -0.49 | -0.38 |

↬ Suggestion (1): Consider other risk-return tradeoff empirical construct that the literature has considered - parametric (like GARCH) or not. For instance, VMF in the first column should become significant when we consider long-term VMF, even using past monthly market variance; this actually helps the paper because the remaining systematic information in long-term VMF is likely macro-related.

↬ Suggestion (2): Validate the $\sigma_t^2$ estimate from the GARCH-system. If the macro interpretation is solid, one would expect the $\sigma^2_{t|DMF}$ performs better than $\sigma^2_{t|VMF}$ in predicting future cumulative IP growth, conditional on VIX etc.

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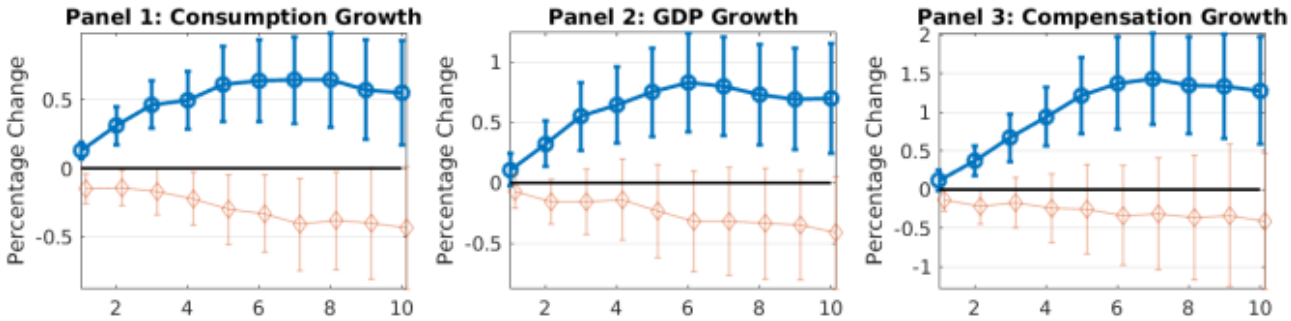


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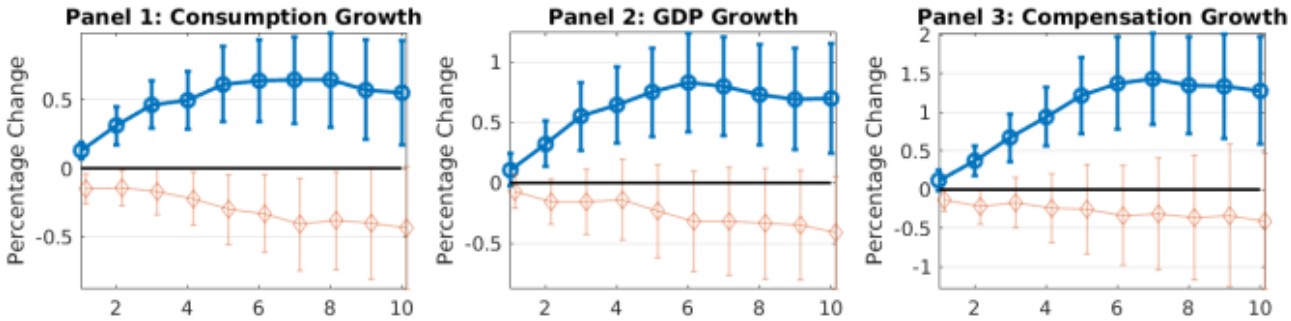


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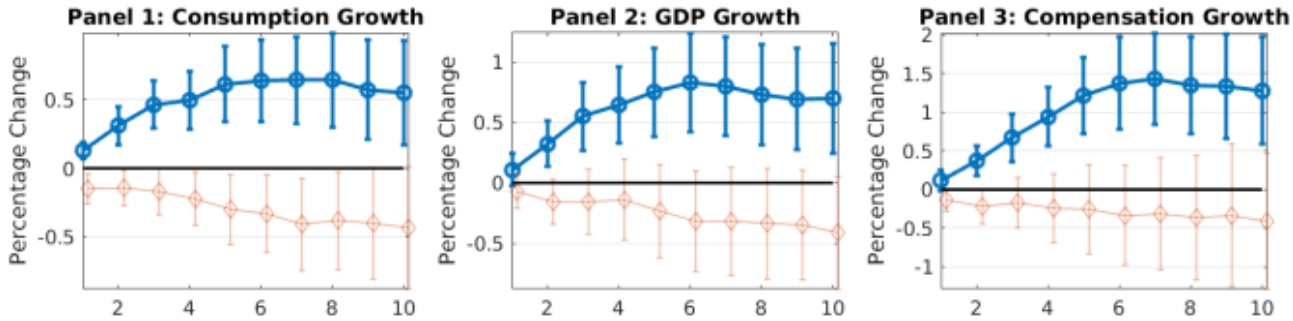


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- **Compare good v. bad DMF and other PCs:**
  ↬ Given what we know about the behaviors of RP and CV, in this plot, one should expect that bad DMF absorbed morenon-linearity.

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- Theoretical frameworks:
  1. Section 4.1 (stylized model with human capital and financial capital) to show labor share could change the composition of risk premium
  2. Section 4.2 (dynamic reduced-form asset pricing model) to show an affine solution of equity risk premium that contains a true market factor compensation, and et al.;
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- **Clarification:** Explain (and cite) the difference between this paper and *"Uncovering the Risk-Return Relation in the Stock Market"* by Hui Guo and Robert F. Whitelaw (2006, JF) – they also estimate cleanse market returns into a pure risk component and find relative risk aversion is positive and significant.

# Conclusion

- **Highly recommend:**
  The idea that, “vw-ret is not a good market return proxy and let’s improve on it,” is cool! Time to provide another perspective to revisit risk-return trade-off. I am very sympathetic to this direction.

- **Concrete suggestions:**
  Streamlining the paper with clearer interpretations, fewer “models,” and more versions of empirical benchmarks (parameteric or not).

Thank You!

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