Motivation

- **Convenience yields** are high despite
  1. High Treasury Supply (Krishnamurthy Vissing-Jorgensen 2012)
  2. Low Real Rates (Nagel 2016)
- **Corporates** ownership share of **treasuries** have been increasing over the last two decades
- **Corporate managers** are exposed to idiosyncratic risk through performance based pay, increasing safe asset demand.

Abstract

I show the new fact that Idiosyncratic volatility significantly predicts the convenience yield. This fact is poses a puzzle with current safe asset theories. I develop a new theory that reconciles this puzzle - a theory I label Safe Asset Demand. Safe Asset Demand explains 29% of future convenience yield variation and is verified in the cross-section of firm treasury holdings. I show that when managers are exposed to moral hazard, corporate demand will be determined by their idiosyncratic risk. I isolate my demand-based effect from confounders by using exogenous cross-sectional variation from corporate size and industry exposures. The results provide support for the importance of corporates as an investor class.

Theoretical Framework

The manager maximises:

\[
U(w, a) = E[1 - e^{-Aw+\sigma a^2}],
\]

(1)

where \(A\) describes the agents degree of risk aversion, and \(a\) his effort level. Secondly, let the investment technology available be equal to \(\sqrt{\kappa}\).

In equilibrium

\[
R^e \approx \frac{1}{2} \sigma a^2,
\]

(2)

where \(\sigma\) is idiosyncratic risk.

Results

- Corporates idiosyncratic risk predicts convenience yields.

\[
\text{Convenience yield versus idiosyncratic volatility lagged}
\]

- Follows well in the time-series

\[
\text{Convenience yield}
\]

- And cross-section, also using exogenous variation from Industry Exposures of Alfaro (2021)

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<tr>
<th>OLS</th>
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<td>(5)</td>
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<tr>
<td><strong>Time(1)</strong></td>
<td>&amp;0.09** &amp;0.26** &amp;1.10** &amp;0.06**</td>
<td>&amp;-0.23** &amp;-1.22**</td>
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<tr>
<td><strong>Time(0)</strong></td>
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<td>&amp;-1.36** &amp;-5.65**</td>
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<td><strong>Constant</strong></td>
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<td>&amp;0.07**</td>
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\(p = 0.06, p = 0.06, p = 0.07, p = 0.07\)

Effect is Long Lasting

- VAR setup shows long-lasting effects.

| Orthogonal Impulse Response to Idiosyncratic Volatility |
|---|---|---|
| Individual | Individual | Individual |
| ry 1m | ry 1m | ry 1m |

\[
\Delta \text{Convenience yield (basis points)}
\]

Time after shock (days)

References


Conclusion

1. I have shown importance of **corporates** driving **safe asset demand**
2. Understanding who is **marginal investor** in which **asset classes** is **promising** avenue to pursue
3. I provide **highly tractable framework** that can be easily extended to other asset classes.