EXPECTATIONS IN FINANCE

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Tom Robertson Lecture
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Survey Expectations

- Survey expectations used to be central to analyzing the macroeconomy.
  - 1940s—1960s: Extensive effort to measure and understand actual expectations. NBER publications: e.g. *The Quality and Economic Significance of Anticipations Data* (1960)

- But lost central role after the Rational Expectations Revolution:
  - Models dictate what expectations rational agents should hold, so anticipations data are redundant.
  - Prescott (1977): “Like utility, expectations are not observed, and surveys cannot be used to test the rational expectations hypothesis.”
Expectations data provide economists with valuable information for understanding decisions and for distinguishing alternative models (Manski, 2004).

Whether survey expectations predict behavior is an empirical question.

Whether actual expectations are rational is testable and informative about models people use.

Whether expectations help investment decisions is an open question.
Messages (continued)

- Survey expectations provide highly consistent information
- Expectations errors are predictable
- New insights into investment decisions.
Expectations and Stock Returns

Greenwood and Shleifer (2014)
The Usefulness of Expectations Data

- Fact 1: Expectations of future stock returns are highly correlated across different surveys, and with equity mutual fund flows.

<table>
<thead>
<tr>
<th></th>
<th>Gallup</th>
<th>CFO Survey</th>
<th>AAII</th>
<th>Investor Intelligence</th>
<th>Shiller</th>
<th>Michigan</th>
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</thead>
<tbody>
<tr>
<td>CFO Survey</td>
<td>0.77</td>
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<td>AAII</td>
<td>0.64</td>
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<td>Investor Intelligence</td>
<td>0.60</td>
<td>0.64</td>
<td>0.55</td>
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<tr>
<td>Shiller</td>
<td>0.39</td>
<td>0.66</td>
<td>0.51</td>
<td>0.43</td>
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<tr>
<td>Michigan</td>
<td>0.61</td>
<td>-0.12</td>
<td>0.60</td>
<td>0.19</td>
<td>-0.56</td>
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<td></td>
<td>[0.003]</td>
<td>[0.922]</td>
<td>[0.003]</td>
<td>[0.395]</td>
<td>[0.020]</td>
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<tr>
<td>Equity Fund Flows</td>
<td>0.70</td>
<td>0.71</td>
<td>0.41</td>
<td>0.20</td>
<td>0.33</td>
<td>0.40</td>
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</tbody>
</table>

*p*-value in brackets.
The Usefulness of Expectations Data

- Fact 2: Expectations of future stock returns are highly correlated with past returns.

Gallup: % optimistic - % pessimistic about next 12m aggregate stock market performance.
Fact 3: Expectations of future stock returns are strongly negatively correlated with model-based measures of expected returns (ER).

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<thead>
<tr>
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<th>Investor Intelligence</th>
<th>Shiller</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log(D/P)</td>
<td>-0.33</td>
<td>-0.44</td>
<td>-0.31</td>
<td>-0.19</td>
<td>-0.55</td>
<td>-0.57</td>
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<tr>
<td>Campbell-Shiller (1988)</td>
<td>[0.000]</td>
<td>[0.003]</td>
<td>[0.000]</td>
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<td>[0.000]</td>
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<tr>
<td>cay</td>
<td>0.02</td>
<td>0.14</td>
<td>-0.02</td>
<td>-0.19</td>
<td>0.37</td>
<td>0.00</td>
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<tr>
<td>Lettau-Ludvigson (2001)</td>
<td>[0.776]</td>
<td>[0.380]</td>
<td>[0.788]</td>
<td>[0.000]</td>
<td>[0.000]</td>
<td>[0.988]</td>
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<tr>
<td>-Surplus Consumption</td>
<td>-0.48</td>
<td>-0.53</td>
<td>-0.28</td>
<td>-0.05</td>
<td>-0.67</td>
<td>-0.74</td>
</tr>
<tr>
<td>Campbell-Cochrane (1999)</td>
<td>[0.000]</td>
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<td>[0.000]</td>
<td>[0.191]</td>
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</tbody>
</table>

p-value in brackets.
The Usefulness of Expectations Data

- Fact 4: When expectations of returns are high, and ER is low, actual returns going forward are low.

<table>
<thead>
<tr>
<th>Source</th>
<th>Realized Next 12m Aggregate Stock Market Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gallup*</td>
<td>-1.985 (1.370)</td>
</tr>
<tr>
<td>CFO Survey</td>
<td>-0.021 (-0.670)</td>
</tr>
<tr>
<td>AAII*</td>
<td>-1.655 (-0.892)</td>
</tr>
<tr>
<td>Investor Intelligence*</td>
<td>-1.534 (-2.323)</td>
</tr>
<tr>
<td>Shiller*</td>
<td>-0.612 (-0.228)</td>
</tr>
<tr>
<td>Michigan</td>
<td>-0.081 (-3.964)</td>
</tr>
<tr>
<td>Log(D/P)</td>
<td>0.072 (1.424)</td>
</tr>
<tr>
<td>cay</td>
<td>3.095 (3.031)</td>
</tr>
<tr>
<td>Surplus Cons</td>
<td>0.958 (4.147)</td>
</tr>
</tbody>
</table>
The Usefulness of Expectations Data

- Survey expectations are informative:
  - Consistent across different surveys of different types of investors
  - Predict investor behavior
  - Have a clear extrapolative structure

- Survey expectations reject rational expectations models of asset prices. The trouble seems to be with the models, not with expectations data.
Expectations and Corporate Investment

Gennaioli, Ma, and Shleifer (2015)
Data on Expectations and Investment

- **CFO Expectations: Duke/CFO Magazine Business Outlook Survey**
  - Since 1998, in every quarter’s CFO survey, respondents are asked about, among other things:
    - Expectations of next 12 month earnings growth
    - Planned next 12 month investment growth
  - Answers are numerical

- **Analyst Expectations: IBES**
  - Supplement CFO expectations of future earnings with analyst forecasts of future earnings.
  - Since early 1980s, IBES provides analyst forecasts of quarterly earnings for up to 12 quarters in the future. Longer time span and larger sample.
CFO and analyst expectations of future earnings growth are highly correlated.
Expectations and Investment: Aggregate Evidence

- CFO earnings growth expectations and investment plans
Expectations and Investment: Aggregate Evidence

- CFO earnings growth expectations, investment plans, and realized investment
Errors in Earnings Growth Expectations: CFOs

- Realized – CFO Expected Next 12m Earnings Growth.
- Errors appear systematic and recurring: over-optimism in good times and over-pessimism in bad times.
Errors in Earnings Growth Expectations: Analysts

- Realized – Analyst Expected Next 12m Earnings Growth.
- Errors appear systematic and recurring: over-optimism in good times and over-pessimism in bad times.
Expectations and the Credit Market

Greenwood and Hanson (2013)
Stylized Facts in Bond Markets

- High (low) credit spread (Baa yield – 10Y Treasury yield) predicts high (low) excess returns on corporate bonds.

- High fraction of debt issuance by low quality firms predicts low excess returns on corporate bonds.
Predictable Errors in Credit Spread Forecast

- Realized – Expected Credit Spread in 12 Months.
Diagnostic Expectations

Bordalo, Gennaioli, La Porta, and Shleifer (2017)
Some Questions about Growth Stocks

- Take the 10% of stocks with most optimistic analyst *earnings growth* forecasts

- What do their returns look like?

- What does their actual operating performance look like?

- What do the forecasts look like compared to actual performance?
Spread in Returns
LTG Dynamics
Excess Optimism for HLTG
Earnings Announcement Returns

![Graph showing earnings announcement returns over years relative to formation for LLTG and HLTG categories.](image-url)
Fat Right Tail in Operating Performance
Exaggerated Right Tail in Analysts’ Forecasts
Summary and Implications

- Expectations data appear to be extremely helpful in understanding economic decisions.
- Expectations about important macro and financial variables appear to exhibit systematic extrapolative errors.
- Expectations appear to be related to reality: Kernel of Truth.
- Expectations data are helpful in predicting returns.