The **Sustainability Footprint** of Institutional Investors

*Philipp Krüger* (with Rajna Gibson Brandon)
University of Geneva & Swiss Finance Institute
What do we do in this paper?

1. Propose a way of measuring the \textit{portfolio-level} sustainability of institutional investors (→ “footprint”)

2. Study the link between
   i. investment horizon and footprint
   ii. risk-adjusted returns and footprint

→ Gain a better understanding of which types of institutions engage in sustainability oriented investment strategies
Measuring sustainability at the **stock-level**

- Environmental and social (ES) ratings from MSCI and Thomson Reuters
- U.S. stocks between 2003 and 2015
- Use **average** MSCI and Thomson Reuters rating
Measuring sustainability footprint at the institutional investor-level

• Combine (i) portfolio weights with (ii) stock-level sustainability scores

• “Footprint”=Value-weighted sustainability of the stocks in the institution’s portfolio:

\[ Susty_{VW} \left( t \right) = \sum_{i=1}^{N_{jt}} w_{ijt} \times Susty_{it-1} \]

• Focus on “13F institutions”: institutions that exercise investment discretion over $100 million in U.S. stocks
- Very few institutions have good footprints (i.e., only 3% of institutions have a footprint of 8 or better)

Note: The higher the footprint, the better...
1.) Footprint of the average institutional investor has increased by about 65% between 2002 and 2015.
2.) Divergence of E and S footprint since 2010 (BP oil spill?)
Institutions with longer investment horizons have higher (i.e., better) footprints.

For example, average Public Pension Fund has a 21% (=5.2/4.3 - 1) better footprint than the average independent investment advisor.

Figure 3, Panel A

Differences economically meaningful.

For example, average Public Pension Fund has a 21% (=5.2/4.3 - 1) better footprint than the average independent investment advisor.
Institutions with lower portfolio turnover have better footprints

Low-turnover institutions have a 38% better sustainability footprint than high-turnover institutions.
What about the link between risk-adjusted performance and footprints?

Institutions with **better** footprints have...

- ... (i) lower returns
- ... (ii) lower risk
- ... (iii) higher Sharpe ratios

**Risk-adjusted performance and sustainability footprint**

**Quarterly**

<table>
<thead>
<tr>
<th>Mean portfolio return</th>
<th>Total portfolio risk</th>
<th>Sharpe ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low: 0.7307</td>
<td>Low: 4.105</td>
<td>Low: 0.194</td>
</tr>
<tr>
<td>Medium: 0.6851</td>
<td>Medium: 3.180</td>
<td>Medium: 0.237</td>
</tr>
<tr>
<td>High: 0.6572</td>
<td>High: 2.673</td>
<td>High: 0.278</td>
</tr>
</tbody>
</table>

$t((\text{high})-(\text{low}))$
Conclusion

1. Propose new way of measuring the portfolio-level sustainability footprint of 13F institutions
2. Show that investment horizon correlates with sustainability footprints: longer horizons, better footprints
3. Show that institutional investors with better sustainability footprints exhibit higher risk-adjusted performance
   – primarily through a reduction of portfolio risk
4. IV and a DID identification strategy suggest a causal impact
Thank you for your attention!