Does Social Preference Drive Institutional SRI? Evidence from The Insurance Industry

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Motivation

- Last two decades have seen a rapid growth in professionally managed funds with environment, social, and governance (ESG) considerations.
  - Surpassed $17.1 trillion at the start of 2020 in the U.S alone ("US SIF Trend report 2020").

- The literature has not reached a consensus on the factors that motivate this trend.
  - Much of the early literature focuses on financial motives for Socially Responsible Investing (SRI).
    - Mixed results, but the majority show that responsible investors are at least not financially hurt (Freide et al., 2015).
  - More recent literature has been devoted to social preference (non-financial motives).
    - Investors conscious of social responsibility invest in ESG funds at the expense of financial gains.
    - Support for investors' non-pecuniary motives are provided mostly from mutual fund literature. (Bollen, 2007; Renneboog et al., 2011; Bialkowski and Starks, 2016; and Hartzmark and Sussman, 2019)
    - Individual investors (Riedl and Smeets, 2017), public pension funds (Hoepner and Schopohl, 2020).

Motivation

- However, little is known how social preference affects institutional investors' SRI.
- We study insurance firms to investigate whether social preference affects institutional SRI.
- Why insurance firms?
  - Insurers invest non-trivial amount of funds into financial market (Asset holdings over $5.1 trillion in 2021).
  - One of the major institutional investors in ESG investments (36% among institutional ESG assets in 2020).
  - Insurers are different from other institutional investors such as mutual funds and public pension funds.
- Social calls for insurance firms.
  - The UN Environment Program launched Principles for Sustainable Insurance (PSI) in 2012.
  - Insure Our Future - Insurance companies have a responsibility to stop insuring fossil fuel expansion.
  - McKinsey & Company - Insurers should also consider the environmental impact of their investments.

Research Questions

- Does social preference affects insurers' SRI?
- Do socially responsible insurers invest in high ESG securities at the expense of financial gains?
- Do socially responsible insurers maintain their preference for high ESG securities during exogenous liquidity shocks?

Main Findings

- A positive relation between insurers' social preference and their SRI.
  - On average, insurers invest less in high ESG securities.
  - However, insurers with high Corporate Social Responsibility (CSR) scores overweight high ESG securities, compared to insurers with low CSR scores.

- Social preference matters, but not at the expense of financial gains.
  - Low ESG stocks yield higher alphas than high ESG stocks.
  - Insurers with high CSR scores experience a positive and significant alpha when they invest in high ESG stocks.

- No positive relation between insurers' social preference and their SRI during exogenous liquidity shocks.

CONTRIBUTIONS

- Literature on the determinants of SRI, particularly on non-financial motives.
  - Evidence for investors' non-financial motives is mostly in the mutual fund literature.

    (Bollen, 2007; Renneboog et al., 2011; Bialkowski and Starks, 2016; and Hartzmark and Sussman, 2019)
  - Individual investors (Riedl and Smeets, 2017), public pension funds (Hoepner and Schopohl, 2020).
  - Investors conscious of social responsibility invest in ESG funds at the expense of financial gains.

➢ We focus on institutional investors, in particular insurance firms.

➢ Social preference matters for institutional SRI, but without compromising financial gains.

➢ We investigate the determinants of SRI both on corporate bonds and common stock holdings.

CONTRIBUTIONS

- Literature on how Corporate Social Responsibility (CSR) affects firm behaviors.
  - Firms with strong CSR engagement are associated with transparent and responsible disclosure practices.

    (Kim et al., 2012; Hoi et al., 2013; Gao and Zhang, 2015; Lanis and Richardson, 2015)
  - High CSR firms earn trust from stakeholders and this help firms overcome times of distress.

    (Porter and Kramer, 2006, 2011; Godfrey, 2005, 2009; Luo and Battacharya, 2009; Koh et al., 2014; Lins et al., 2017).

➢ We add to this literature that institutional investors' CSR engagement affects their portfolio management.

CONTRIBUTIONS

- Small but growing literature on SRI within the scope of insurance industry.
  - Life insurers are more likely to invest in corporate bonds issued by high ESG firm (Li, 2022).
  - P&C insurers with greater litigation exposure in their operation are more likely to invest in firms with low litigation risk (Cho and Liebenberg, 2022).
  - Significant increases in the word count related to sustainable investing among European and US insurance firms from 2013 to 2018 (Gatzert and Reichel, 2022) .
  - Insurers affected by mandatory carbon disclosure requirements have reduced their exposure to fossil fuel assets (Su, 2023).

➢ We add to this growing literature by investigating how insurers' CSR engagement affects their SRI.

Data

- Insurers' yearly security holdings and daily trades: NAIC, Schedule D.
- Firm-specific financials: COMPUSTAT, NAIC
- Stock returns: CRSP
- ESG data: MSCI ESG STAT database
- Final Sample (2006 – 2018)
  - 90 insurer groups (51 PC & 39 LH) / 128,972 yearly security holdings / 91,027 stock buy trades
  - 628 sell trades over two liquidity shocks (Hurricane Ike (Sep., 2008), Hurricane Sandy (Oct., 2012))

SOCIAL PREFERENCE

$$\text{Security\_wgt}_{ikt} = \alpha_t + \beta_1\text{\_ESG\_Security}_{kt} + \beta_2\text{\_ESG\_Security}_{kt} \times \text{CSR\_Insurer}_{it} + \beta_3\text{Controls\_Security}_{kt} + \beta_4\text{Controls\_Insurer}_{it} + \theta_{ik} + \nu_t + \varepsilon_{ikt} \quad (2)$$

- Security weight measure (Dependent variable)
  - The value of security holdings divided by the value of insurers' portfolio holdings (unaffiliated firms)

- Security ESG Measure (Key independent variable)
  - MSCI ESG STAT database (i.e., KLD Research and Analytics)
  - Three main categories: Community, Governance, Social.
    - Social category: Community, Human Rights, Employee Relations, Diversity, and Product

- Insurer Social Preference (CSR) Measure (Key independent variable)
  - MSCI ESG scores are commonly used to measure a firm's CSR in the literature.
    (Kim et al., 2012; Hoi et al., 2013; Gao et al., 2014; Gao and Zhang, 2015; Lanis and Richardson, 2015; Lins et al., 2017)

SOCIAL PREFERENCE

$$\text{Security\_wgt}_{ikt} = \alpha_t + \beta_1\text{\_ESG\_Security}_{kt} + \beta_2\text{\_ESG\_Security}_{kt} \times \text{CSR\_Insurer}_{it} + \beta_3\text{Controls\_Security}_{kt} + \beta_4\text{Controls\_Insurer}_{it} + \theta_{ik} + \nu_t + \varepsilon_{ikt} \quad (2)$$

- Security Control variables
  - Size (Market capitalization), book to market ratio, debt-ratio, and return on assets.
- Insurer control variables
  - Size (total admitted assets), leverage, adjusted risk based capital, and financial slack.
- Insurer-security fixed effects and year fixed effects (Hoepner and Schopohl, 2020).
- A significant coefficient estimate for the interaction variable would indicate that insurers' social preference has impact on their SRI.

SOCIAL PREFERENCE

- On average, the higher the security firms' ESG score, the less weight insurers allocate.

Table 5

Social Preferences and Insurers' SRI

Dependent Variable: Security_wgt								
ESG Measure:	ESG		Environment		Social		Governance	
ESG_Security	-0.0073***	-0.0081***	-0.0170***	-0.0196***	-0.0042**	-0.0049**	-0.0240***	-0.0262***
	(0.0016)	(0.0017)	(0.0038)	(0.0041)	(0.0020)	(0.0021)	(0.0058)	(0.0062)
CSR_Insurer& ESG_Security		0.0009***		0.0023***		0.0008***		0.0028**
		(0.0002)		(0.0006)		(0.0003)		(0.0011)
Fixed_Insurer_Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed_Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	128,972	128,972	128,972	128,972	128,972	128,972	128,972	128,972
Adj. R-squared	0.0159	0.0161	0.0158	0.0160	0.0155	0.0156	0.0159	0.0159

SOCIAL PREFERENCE

- However, insurers with high CSR scores tilt more towards securities with high ESG scores, compared to insurers with low CSR scores.

  → A positive and significant relation between social preference and institutional SRI.

Table 5

Social Preferences and Insurers' SRI

Dependent Variable: Security_wgt								
ESG Measure:	ESG		Environment		Social		Governance	
ESG_Security	-0.0073***	-0.0081***	-0.0170***	-0.0196***	-0.0042**	-0.0049**	-0.0240***	-0.0262***
	(0.0016)	(0.0017)	(0.0038)	(0.0041)	(0.0020)	(0.0021)	(0.0058)	(0.0062)
CSR_Insurer& ESG_Security		0.0009***		0.0023***		0.0008***		0.0028**
		(0.0002)		(0.0006)		(0.0003)		(0.0011)
Fixed_Insurer_Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed_Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	128,972	128,972	128,972	128,972	128,972	128,972	128,972	128,972
Adj. R-squared	0.0159	0.0161	0.0158	0.0160	0.0155	0.0156	0.0159	0.0159

SOCIAL PREFERENCE

- Insurers incorporate Environment and Governance factors more than Social factor.

Table 4

Social Preferences for Insurers' SRI

Dependent Variable: Security_wgt								
ESG Measure:	ESG		Environment		Social		Governance	
ESG_Security	-0.0073***	-0.0081***	-0.0170***	-0.0196***	-0.0042**	-0.0049**	-0.0240***	-0.0262***
	(0.0016)	(0.0017)	(0.0038)	(0.0041)	(0.0020)	(0.0021)	(0.0058)	(0.0062)
CSR_Insurer& ESG_Security		0.0009***		0.0023***		0.0008***		0.0028**
		(0.0002)		(0.0006)		(0.0003)		(0.0011)
Fixed_Insurer_Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed_Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	128,972	128,972	128,972	128,972	128,972	128,972	128,972	128,972
Adj. R-squared	0.0159	0.0161	0.0158	0.0160	0.0155	0.0156	0.0159	0.0159

Social Preference (Insurer Types)

- Both PC insurers and LH insurers follow the general patterns.

Social Preferences for PC insurers' SRI

Dependent Variable: Security_wgt								
ESG Measure:	ESG		Environment		Social		Governance	
ESG_Security	-0.0068**	-0.0071**	-0.0229***	-0.0260***	-0.0004	-0.0009	-0.0334***	-0.0361***
	(0.0032)	(0.0033)	(0.0075)	(0.0078)	(0.0039)	(0.0039)	(0.0120)	(0.0124)
CSR_Insurer& ESG_Security		0.0019**		0.0053***		0.0014		0.0118**
		(0.0007)		(0.0020)		(0.0009)		(0.0048)
Observations	49,704	49,704	49,704	49,704	49,704	49,704	49,704	49,704
Adj. R-squared	0.0136	0.0138	0.0138	0.0141	0.0133	0.0134	0.0139	0.0143

Social Preferences for LH Insurers' SRI

Dependent Variable: Security_wgt								
ESG Measure:	ESG		Environment		Social		Governance	
ESG_Security	-0.0071***	-0.0080***	-0.0117***	-0.0140***	-0.0064***	-0.0074***	-0.0161***	-0.0178***
	(0.0015)	(0.0016)	(0.0038)	(0.0040)	(0.0019)	(0.0020)	(0.0051)	(0.0055)
CSR_Insurer& ESG_Security		0.0007***		0.0014**		0.0008***		0.0016*
		(0.0002)		(0.0006)		(0.0003)		(0.0009)
Observations	79,268	79,268	79,268	79,268	79,268	79,268	79,268	79,268
Adj. R-squared	0.0262	0.0264	0.0257	0.0258	0.0257	0.0259	0.0257	0.0257

Social Preference (Insurer Types)

- High CSR PC insurers are more sensitive to high ESG securities.
- LH insurers incorporate different ESG factors relatively evenly into their SRI.

Social Preferences for PC insurers' SRI

Dependent Variable: Security_wgt								
ESG Measure:	ESG		Environment		Social		Governance	
ESG_Security	-0.0068**	-0.0071**	-0.0229***	-0.0260***	-0.0004	-0.0009	-0.0334***	-0.0361***
	(0.0032)	(0.0033)	(0.0075)	(0.0078)	(0.0039)	(0.0039)	(0.0120)	(0.0124)
CSR_Insurer& ESG_Security		0.0019**		0.0053***		0.0014		0.0118**
		(0.0007)		(0.0020)		(0.0009)		(0.0048)
Observations	49,704	49,704	49,704	49,704	49,704	49,704	49,704	49,704
Adj. R-squared	0.0136	0.0138	0.0138	0.0141	0.0133	0.0134	0.0139	0.0143

Social Preferences for LH Insurers' SRI

Dependent Variable: Security_wgt								
ESG Measure:	ESG		Environment		Social		Governance	
ESG_Security	-0.0071***	-0.0080***	-0.0117***	-0.0140***	-0.0064***	-0.0074***	-0.0161***	-0.0178***
	(0.0015)	(0.0016)	(0.0038)	(0.0040)	(0.0019)	(0.0020)	(0.0051)	(0.0055)
CSR_Insurer& ESG_Security		0.0007***		0.0014**		0.0008***		0.0016*
		(0.0002)		(0.0006)		(0.0003)		(0.0009)
Observations	79,268	79,268	79,268	79,268	79,268	79,268	79,268	79,268
Adj. R-squared	0.0262	0.0264	0.0257	0.0258	0.0257	0.0259	0.0257	0.0257

Social Preference (Robustness)

- Standardized ESG measure
  - The items assessed in MSCI ESG categories added and removed.
  - The number of strengths and concerns in each category varied over the sample years.
  - To assure comparability over time, the baseline ESG measure is standardized to a mean of zero and a standard deviation of one.
    (Kotchen and Moon, 2012; Hong and Liskovich, 2015; Hoepner and Schopohl, 2020; Chakraborty et al., 2022)

- Alternative insurers' social preference (CSR) measures
  - Previous literature suggests that Governance is not part of firms' CSR activities.
    (Kim et al., 2012; Gao et al., 2014; Lins et al., 2017)
  - Product category contains elements that are distinct from firms' CSR activities.
    (Lin et al., 2017)
  - Insurers' CSR measures that exclude Governance and Product category.

Social Preference (Robustness)

- Security weight measure that includes investments in affiliated firms.
  - The baseline security weight measure only includes investments in unaffiliated firms.
  - However, insurers invest a non-trivial amount of funds in affiliated firms.
  - Thus, analyses that fail to address this concern can be misleading.
  - We construct security weight measure that includes investments in affiliated firms.

Social Preference (Robustness)

- The results are consistent with our original findings.

Table 5

Social Preferences for Insurers' SRI: Robustness Tests

Dependent Variable: Security_wgt (Overall ESG)								
	ESG_STD		Insurer_CSR_NoCgov		Insurer_CSR_NoPro		Security_wgt_Affi	
ESG_Security	-0.0161***	-0.0184***	-0.0073***	-0.0089***	-0.0073***	-0.0100***	-0.0068***	-0.0076***
	(0.0040)	(0.0042)	(0.0016)	(0.0018)	(0.0016)	(0.0020)	(0.0015)	(0.0016)
CSR_Insurer& ESG_Security		0.0060***		0.0012***		0.0014***		0.0009***
		(0.0016)		(0.0003)		(0.0003)		(0.0002)
Fixed_Insurer_Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed_Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	128,972	128,972	128,972	128,972	128,972	128,972	129,040	129,040
Adj. R-squared	0.0158	0.0160	0.0159	0.0162	0.0159	0.0162	0.0161	0.0163

Financial Motives

$$\text{Return\_buys}_k = \alpha + \beta_1(R_m - R_f) + \beta_2 SMB + \beta_3 HML + \theta_k + \nu_t + \varepsilon_{kt} \quad (3)$$

$$\text{Return\_buys}_k = \alpha + \beta_1(R_m - R_f) + \beta_2 SMB + \beta_3 HML + \beta_3 MOM + \theta_k + \nu_t + \varepsilon_{kt} \quad (4)$$

$$\text{Return\_buys}_k = \alpha + \beta_1(R_m - R_f) + \beta_2 SMB + \beta_3 HML + \beta_3 RMW + \beta_3 CMA + \theta_k + \nu_t + \varepsilon_{kt} \quad (5)$$

- We estimate abnormal returns (alpha) from insurers' daily stock buy trades.
- We follow a buy and hold strategy over 1, 2, 3, and 6 months.
- Fama-French three factor model – Excess market return, SMB, and HML
- Carhart four factor model – Excess market return, SMB, HML, and Mom
- Fama-French five factor model - Excess market return, SMB, HML, RMW, and CMA

FINANCIAL MOTIVES

- Low ESG stocks yield superior returns ("alpha") than high ESG stocks.
  - Provides an explanation why insurers on average invest less in high ESG securities.

Dependent Variable: Return_Buys									
ESG_Stock:	All Stocks			High ESG Stocks			Low ESG Stocks		
Model:	3-Factor	4-Factor	5-Factor	3-Factor	4-Factor	5-Factor	3-Factor	4-Factor	5-Factor
Panel A: Holding Period of 1 Month									
Alpha	0.1303***	0.0778	0.1291***	0.1085	0.0496	0.1091	0.1866**	0.1576**	0.1830**
(t-stat)	(0.0467)	(0.0474)	(0.0468)	(0.0701)	(0.0711)	(0.0704)	(0.0754)	(0.0777)	(0.0754)
Panel B: Holding Period of 2 Months									
Alpha	0.0420**	0.0074	0.0426**	0.0444	0.0084	0.0455	0.0266	0.0076	0.0274
(t-stat)	(0.0214)	(0.0216)	(0.0214)	(0.0381)	(0.0379)	(0.0378)	(0.0472)	(0.0480)	(0.0473)
Panel C: Holding Period of 3 Months									
Alpha	0.0166	-0.0082	0.0170	0.0195	-0.0053	0.0207	0.0032	-0.0105	0.0041
(t-stat)	(0.0162)	(0.0162)	(0.0162)	(0.0269)	(0.0264)	(0.0263)	(0.0414)	(0.0418)	(0.0420)
Panel D: Holding Period of 6 Months									
Alpha	0.0152*	0.0070	0.0143	0.0088	0.0008	0.0093	0.0095	0.0050	0.0062
(t-stat)	(0.0090)	(0.0089)	(0.0090)	(0.0165)	(0.0160)	(0.0161)	(0.0203)	(0.0203)	(0.0209)
N. of Obs.	91,027	91,027	91,027	24,822	24,822	24,822	20,579	20,579	20,579

FINANCIAL MOTIVES

- But, high CSR insurers experience a positive alpha when they invest in high ESG stocks.
  - The daily alphas can be translated into an alpha of 0.52 percent to 1.29 percent per annum.

Dependent Variable: Return_Buys												
EGS scores:	Insurer_High&Stock_High			Insurer_High&Stock_Low			Insurer_Low&Stock_High			Insurer_Low&Stock_Low		
Model:	3-F	4-F	5-F	3-F	4-F	5-F	3-F	4-F	5-F	3-F	4-F	5-F
Panel A: Holding Period of 1 Month												
Alpha	0.5071***	0.4681***	0.5067***	0.2254	0.1998	0.2202	-0.1736	-0.2336	-0.1745	0.2719	0.2671	0.2697
(t-stat)	(0.1532)	(0.1527)	(0.1535)	(0.1457)	(0.1464)	(0.1462)	(0.2622)	(0.2619)	(0.2632)	(0.2022)	(0.2019)	(0.2023)
Panel B: Holding Period of 2 Months												
Alpha	0.2322**	0.2050**	0.2318**	-0.0515	-0.0637	-0.0545	0.0672	0.0340	0.0696	0.1649	0.1568	0.1623
(t-stat)	(0.0983)	(0.0987)	(0.0984)	(0.1587)	(0.1587)	(0.1590)	(0.0784)	(0.0796)	(0.0784)	(0.1232)	(0.1234)	(0.1267)
Panel C: Holding Period of 3 Months												
Alpha	0.0636	0.0411	0.0628	0.0536	0.0423	0.0520	0.0259	-0.0025	0.0311	-0.0026	-0.0084	-0.0005
(t-stat)	(0.0508)	(0.0512)	(0.0506)	(0.1256)	(0.1261)	(0.1265)	(0.0763)	(0.0775)	(0.0763)	(0.0908)	(0.0908)	(0.0944)
Panel D: Holding Period of 6 Months												
Alpha	0.0248	0.0103	0.0232	-0.0289	-0.0375	-0.0324	0.0515	0.0405	0.0564	0.0152	0.0140	0.0111
(t-stat)	(0.0253)	(0.0259)	(0.0252)	(0.0394)	(0.0398)	(0.0399)	(0.0393)	(0.0392)	(0.0393)	(0.0676)	(0.0674)	(0.0686)
N. of Obs.	8,393	8,393	8,393	8,805	8,805	8,805	5,632	5,632	5,632	8,217	8,217	8,217

FINANCIAL MOTIVES

- But, high CSR insurers experience a positive alpha when they invest in high ESG stocks.
  - Social preference matters in institutional SRI, but without compromising financial motives.

Dependent Variable: Return_Buys												
EGS scores:	Insurer_High&Stock_High			Insurer_High&Stock_Low			Insurer_Low&Stock_High			Insurer_Low&Stock_Low		
Model:	3-F	4-F	5-F	3-F	4-F	5-F	3-F	4-F	5-F	3-F	4-F	5-F
Panel A: Holding Period of 1 Month												
Alpha	0.5071***	0.4681***	0.5067***	0.2254	0.1998	0.2202	-0.1736	-0.2336	-0.1745	0.2719	0.2671	0.2697
(t-stat)	(0.1532)	(0.1527)	(0.1535)	(0.1457)	(0.1464)	(0.1462)	(0.2622)	(0.2619)	(0.2632)	(0.2022)	(0.2019)	(0.2023)
Panel B: Holding Period of 2 Months												
Alpha	0.2322**	0.2050**	0.2318**	-0.0515	-0.0637	-0.0545	0.0672	0.0340	0.0696	0.1649	0.1568	0.1623
(t-stat)	(0.0983)	(0.0987)	(0.0984)	(0.1587)	(0.1587)	(0.1590)	(0.0784)	(0.0796)	(0.0784)	(0.1232)	(0.1234)	(0.1267)
Panel C: Holding Period of 3 Months												
Alpha	0.0636	0.0411	0.0628	0.0536	0.0423	0.0520	0.0259	-0.0025	0.0311	-0.0026	-0.0084	-0.0005
(t-stat)	(0.0508)	(0.0512)	(0.0506)	(0.1256)	(0.1261)	(0.1265)	(0.0763)	(0.0775)	(0.0763)	(0.0908)	(0.0908)	(0.0944)
Panel D: Holding Period of 6 Months												
Alpha	0.0248	0.0103	0.0232	-0.0289	-0.0375	-0.0324	0.0515	0.0405	0.0564	0.0152	0.0140	0.0111
(t-stat)	(0.0253)	(0.0259)	(0.0252)	(0.0394)	(0.0398)	(0.0399)	(0.0393)	(0.0392)	(0.0393)	(0.0676)	(0.0674)	(0.0686)
N. of Obs.	8,393	8,393	8,393	8,805	8,805	8,805	5,632	5,632	5,632	8,217	8,217	8,217

FINANCIAL MOTIVES

- Insignificant alphas for high CSR insurers when they invest in low ESG stocks.
  - This rules out the possibility that high CSR insurers generally have superior investment strategies.

Dependent Variable: Return_Buys												
EGS scores:	Insurer_High&Stock_High			Insurer_High&Stock_Low			Insurer_Low&Stock_High			Insurer_Low&Stock_Low		
Model:	3-F	4-F	5-F	3-F	4-F	5-F	3-F	4-F	5-F	3-F	4-F	5-F
Panel A: Holding Period of 1 Month												
Alpha	0.5071***	0.4681***	0.5067***	0.2254	0.1998	0.2202	-0.1736	-0.2336	-0.1745	0.2719	0.2671	0.2697
(t-stat)	(0.1532)	(0.1527)	(0.1535)	(0.1457)	(0.1464)	(0.1462)	(0.2622)	(0.2619)	(0.2632)	(0.2022)	(0.2019)	(0.2023)
Panel B: Holding Period of 2 Months												
Alpha	0.2322**	0.2050**	0.2318**	-0.0515	-0.0637	-0.0545	0.0672	0.0340	0.0696	0.1649	0.1568	0.1623
(t-stat)	(0.0983)	(0.0987)	(0.0984)	(0.1587)	(0.1587)	(0.1590)	(0.0784)	(0.0796)	(0.0784)	(0.1232)	(0.1234)	(0.1267)
Panel C: Holding Period of 3 Months												
Alpha	0.0636	0.0411	0.0628	0.0536	0.0423	0.0520	0.0259	-0.0025	0.0311	-0.0026	-0.0084	-0.0005
(t-stat)	(0.0508)	(0.0512)	(0.0506)	(0.1256)	(0.1261)	(0.1265)	(0.0763)	(0.0775)	(0.0763)	(0.0908)	(0.0908)	(0.0944)
Panel D: Holding Period of 6 Months												
Alpha	0.0248	0.0103	0.0232	-0.0289	-0.0375	-0.0324	0.0515	0.0405	0.0564	0.0152	0.0140	0.0111
(t-stat)	(0.0253)	(0.0259)	(0.0252)	(0.0394)	(0.0398)	(0.0399)	(0.0393)	(0.0392)	(0.0393)	(0.0676)	(0.0674)	(0.0686)
N. of Obs.	8,393	8,393	8,393	8,805	8,805	8,805	5,632	5,632	5,632	8,217	8,217	8,217

Exogenous Liquidity Shocks

- During the times of liquidity shocks, PC insurers may disregard their social preference.
- Two severe natural disasters over the sample years
  - "Severe" defined as estimated damage exceeding $10 billion (Chaderina et al., 2022).
  - Hurricane Ike (Sep., 2008) and Hurricane Sandy (Oct., 2012)
  - Event time window: a month prior and post disaster date
- Affected insurers and unaffected insurers
  - Deciles based on short term liquidity needs.
  - Ratio of aggregated annual premiums written (only property insurance lines) over the affected states to cash and short-term investments.
- Non-trading sell transactions (e.g., redemptions, pay downs, etc) are not included.

EXOGENOUS LIQUIDITY SHOCKS

- Affected insurers show no significant relation between social preference and security weight.
  - Social preference does not persist in times of liquidity shocks.
  - Wealth-dependent investor preference for ESG stocks (Bansal et al., 2022).

Dependent Variable: Security_wgt_sold						
	Cutoff-50		Cutoff-40		Cutoff-30	
Variables	Affected	Not Affected	Affected	Not Affected	Affected	Not Affected
ESG_Security	0.0003**	-0.0009***	0.0003**	-0.0009**	0.0003**	-0.0011***
	(0.0001)	(0.0003)	(0.0001)	(0.0003)	(0.0001)	(0.0003)
CSR_Insurer& ESG_Security	-0.0002	-0.0005***	0.0001	-0.0005**	0.0001	-0.0005**
	(0.0002)	(0.0001)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Fixed_Insurer_Security	Yes	Yes	Yes	Yes	Yes	Yes
Fixed_Year	Yes	Yes	Yes	Yes	Yes	Yes
Observations	427	199	399	149	361	136
Adj. R-squared	0.5130	0.5283	0.5205	0.5519	0.5268	0.5631

Conclusion

- Despite the recent growth in SRI, no consensus on what motivates SRI.
  - Much of the literature has been devoted to financial impacts of ESG
  - More recent literature focuses on the role of social preference (non-pecuniary motives).
  - Responsible investors are willing to sacrifice some of financial gains when investing ESG.

- We study whether social preference affects institutional SRI, studying insurers.

- We find that,
  - On average, insurers underweight high ESG securities.
  - Social preference matters for institutional SRI, but not at the expense of financial gains.
  - Socially responsible insurers' preference for high ESG securities do not persist during liquidity shocks.

THANK YOU!