

What Purpose Do Corporations Purport?

Evidence from Letters to Shareholders

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“Over the years, there have been multiple times" when reading the annual letter "has been a factor in my deciding to do something or not to do something”

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BERKSHIRE HATHAWAY
LETTERS TO SHAREHOLDERS
1965-2014



Example

amazon.com



To our shareholders, customers, and employees:

It's All About the Long Term

We believe that a fundamental measure of our success will be the shareholder value we create over the long term. This value will be a direct result of our ability to extend and solidify our current market leadership position. The stronger our market leadership, the more powerful our economic model. Market leadership can translate directly to higher revenue, higher profitability, greater capital velocity, and correspondingly stronger returns on invested capital.

Why this paper?

- Until the advent of social media, shareholder letters were the most important form of direct communication between the company and all its stakeholders
- We study them to find out
 1. What goals do CEOs want to project?
 2. How did this change over time?
 3. Why?
 4. Is it simply marketing or does it have real consequences?

Sample

- 150 largest American companies from 1955 to 2020
 - Largest 120 non financial by sales (Fortune)
 - Largest 30 financials by assets (Fortune)
- We collect the shareholder letters from Mergent, Proquest, microfiches, and more recently Google searches.
- We OCR them using ABBYY Finereader
- We divided them into paragraphs:
 - A period, exclamation mark, or question mark followed by a new line

Problem

- Nearly 9,000 letters.
 - Not feasible to read them all (or maintain objectivity/sanity reading them).
- We have to use some form of Natural Language Processing (NLP).
 - NLP techniques generally require large amounts of labeled data for training.

Procedure

- Pre-trained models are readily available
- We take one developed by Google, available from the Python library HuggingFace.
- We train it further with language from the set of shareholder letters.
- Then, we train a “classifier head” to predict whether a paragraph is a goal.
- We train a second “classifier” head to allocate goal paragraphs to one of the 13 main goals.

Our labeled dataset

- We randomly selected
 - 3,000 paragraphs that contain a selected “goal” word ('aim', 'intend', 'mission', 'vision', 'goal', 'objective', etc.)
 - 1,500 that do not
- Authors label them individually as goal or not goal
 - Iron out differences together.
- Read 500 goal paragraphs, identify 13 specific goals
- For each of these goals, we extracted a set of seed words
- We took goal paragraphs with these seed words (aiming at 100 for each goal), and classify them.
 - Which goals, if any

Specific goals: 13 after reading 500 reports

1. Shareholder value maximization

- SVM/profitability/return on assets
- SVM (Narrow)

2. Other corporate performance goals

- Growth (sales/assets)
- Innovation
- Risk management/debt management

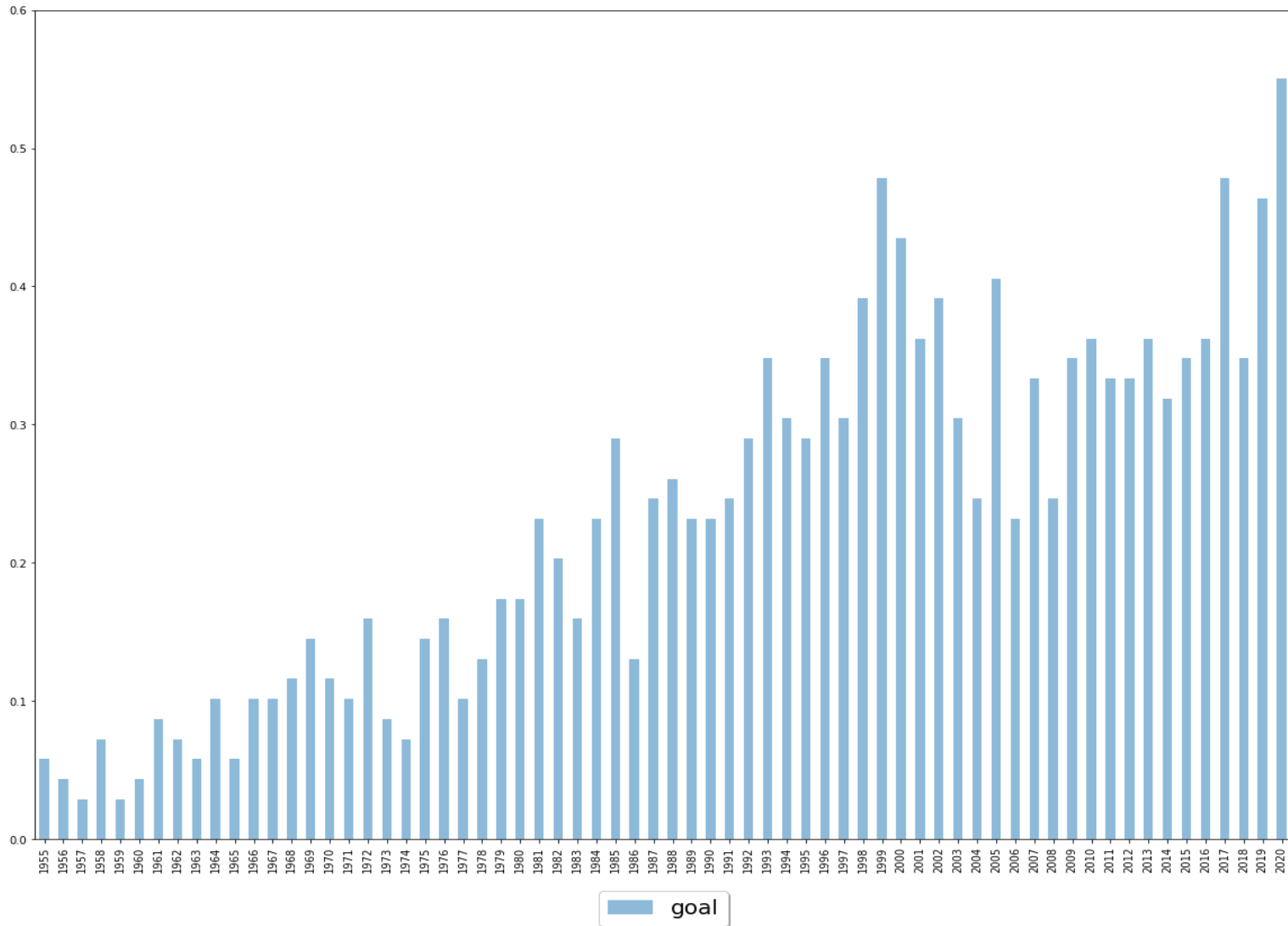
3. Other stakeholders

- Customers
- Employees
- Suppliers
- Community
- Stakeholders

4. Society as a whole

- Ethics/values
- Philanthropy
- ESG social: e.g., diversity and inclusion
- ESG environment: e.g., emissions/pollution

% of Paragraphs that Are Goals



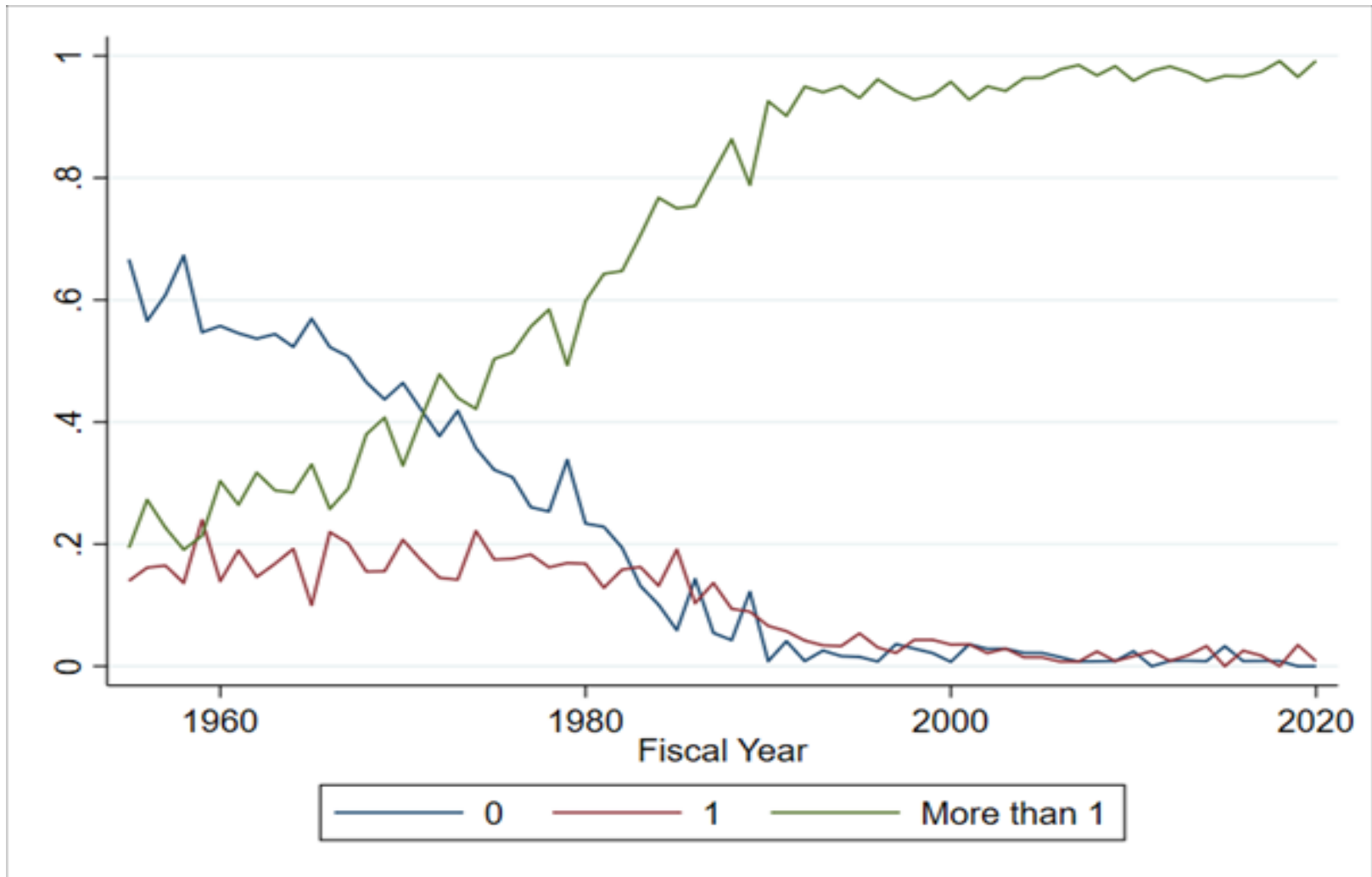
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Analysis of the Goals over Time

Key Trends

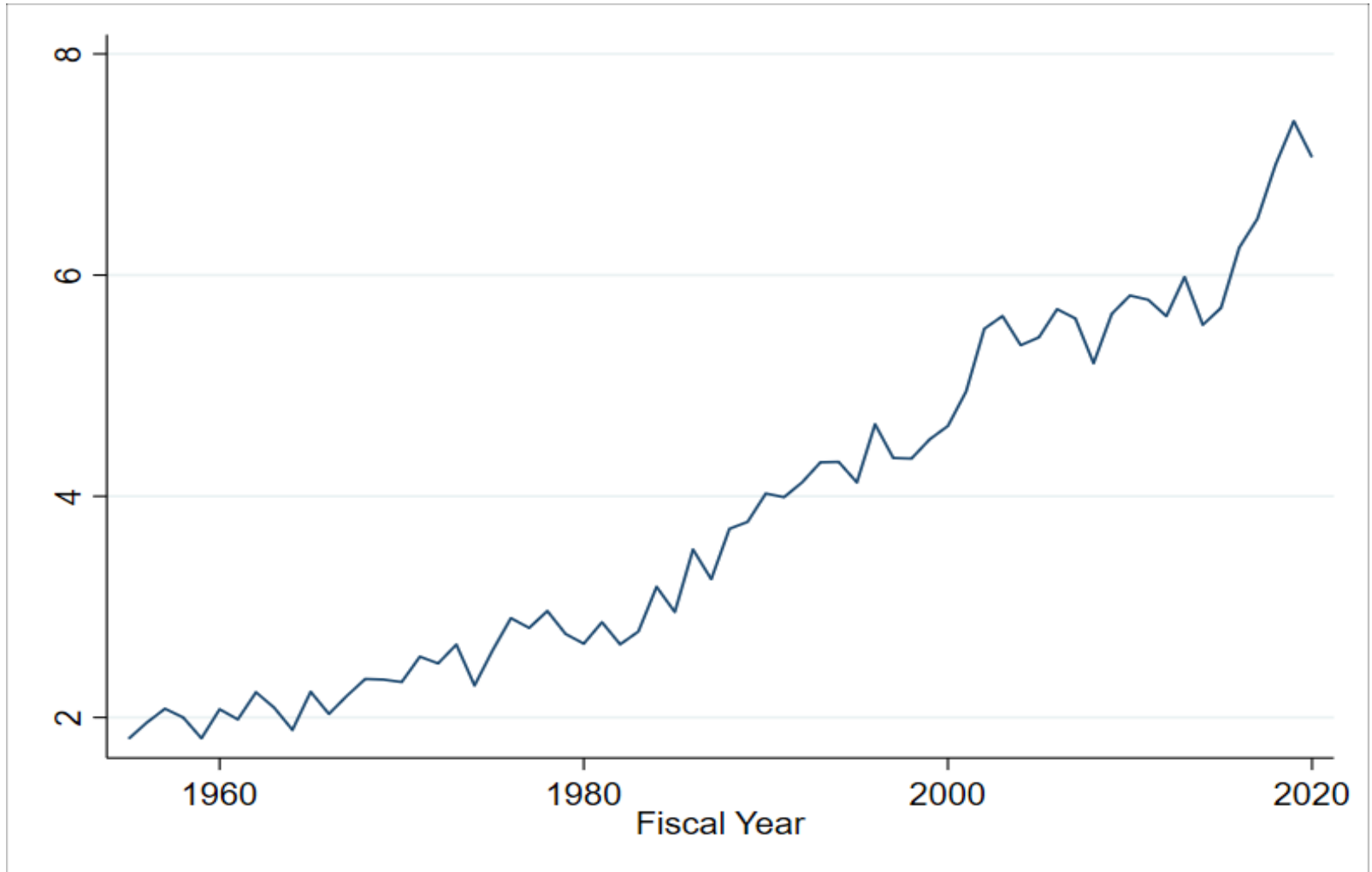
1. Explosion in the number of goals

Share of Firms by Number of Goals



Average Number of Goals

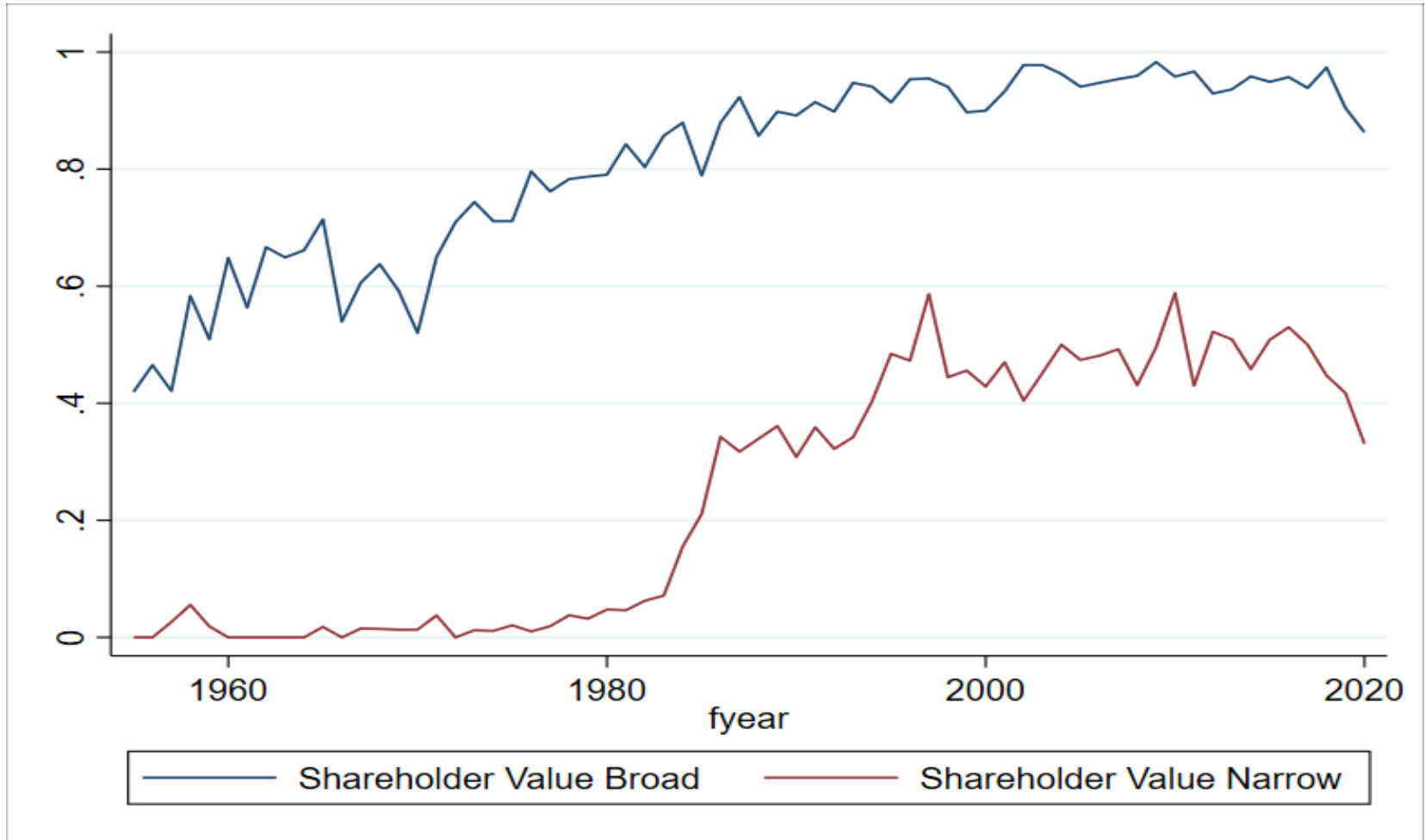
(conditional on mentioning at least one goal)



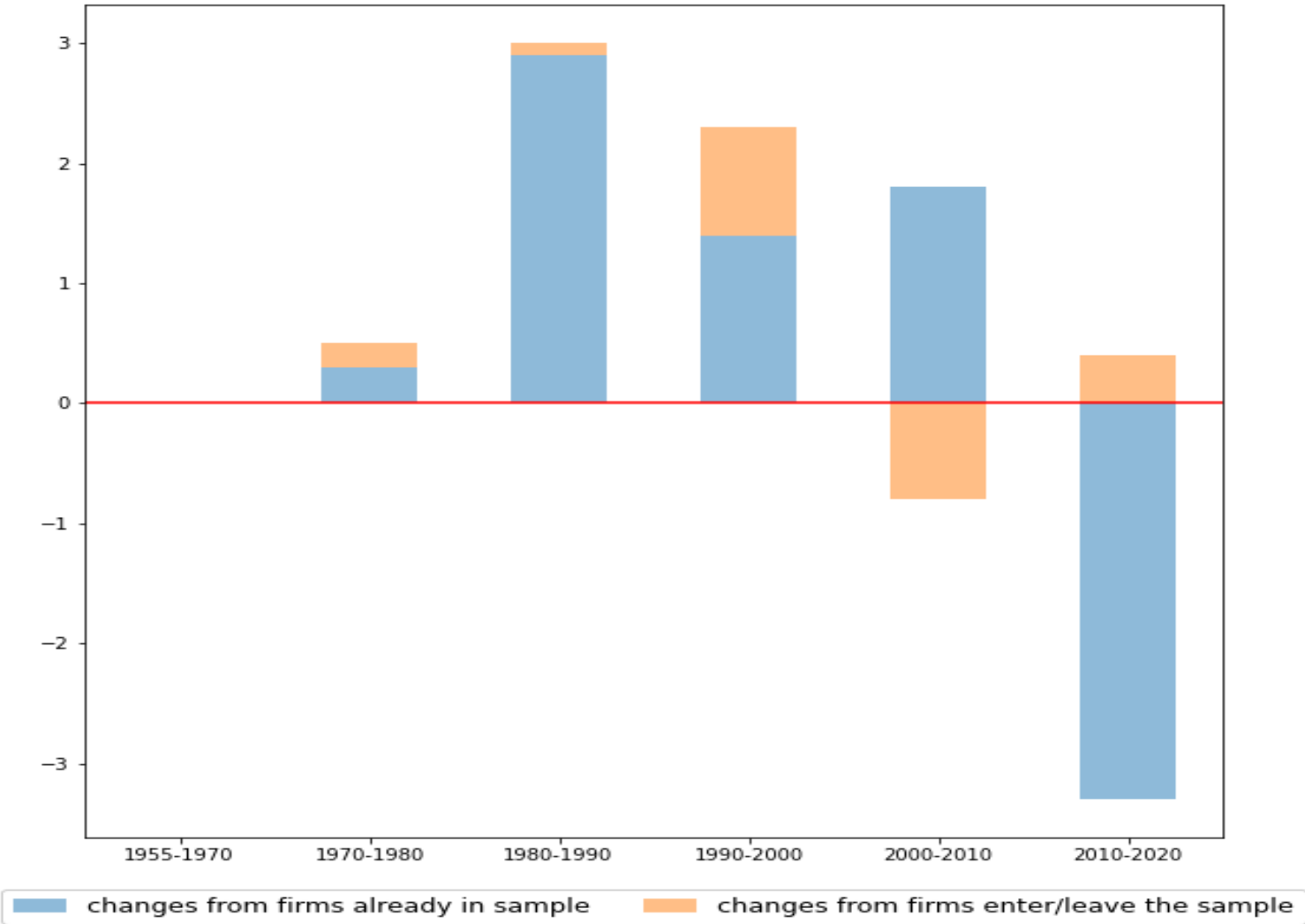
Key Trends

1. Explosion in the number of goals
2. Most mentioned a shareholder-oriented goal even before the 1970s
3. SVM (narrow) exploded in the 1980s and 1990s, falling off recently

Percentage of firms listing shareholder value as a goal (conditional on at least one goal)



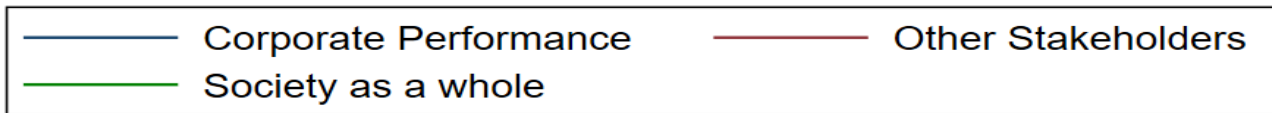
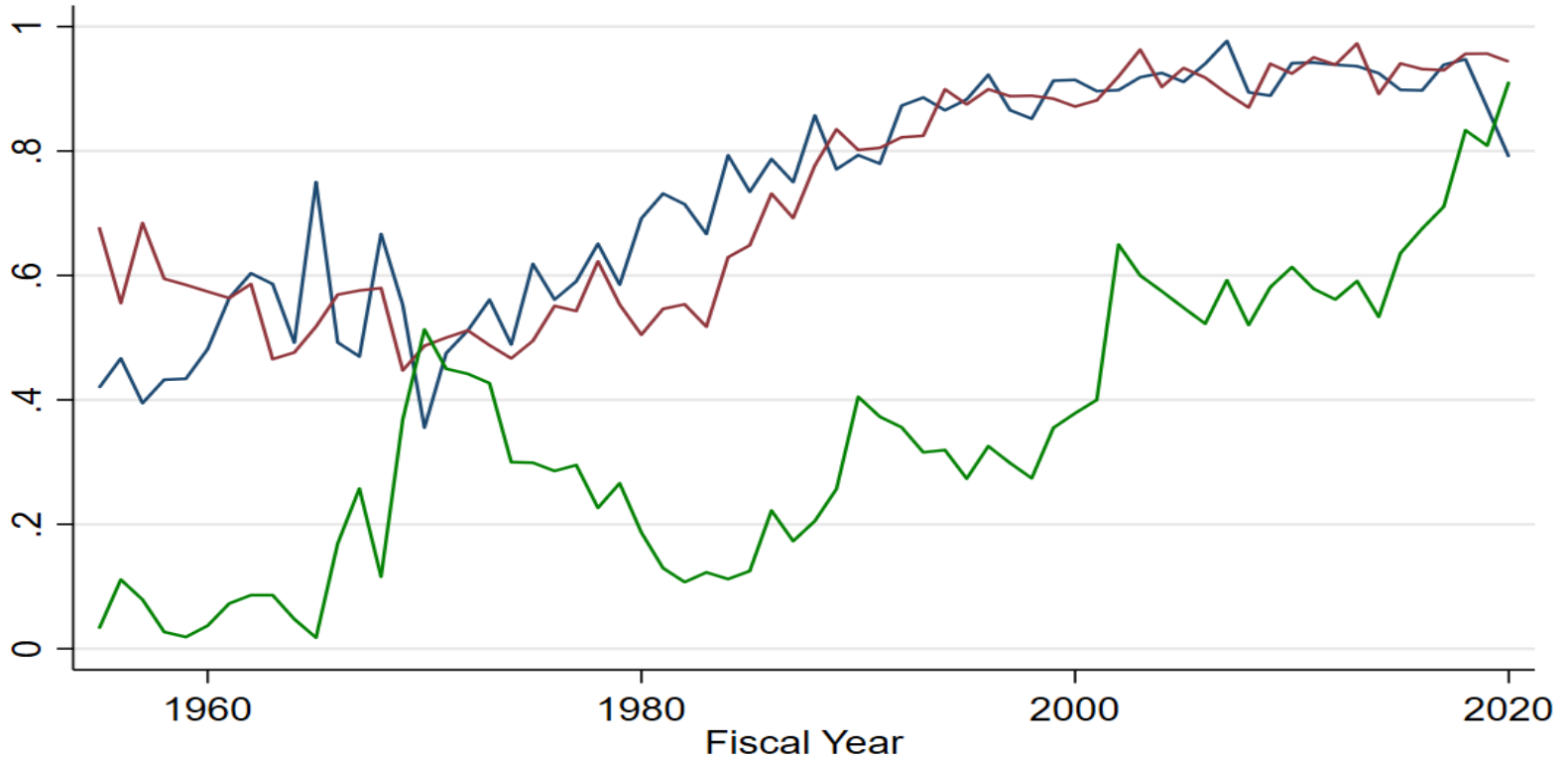
Where are changes coming from? Shareholder Value (narrow)



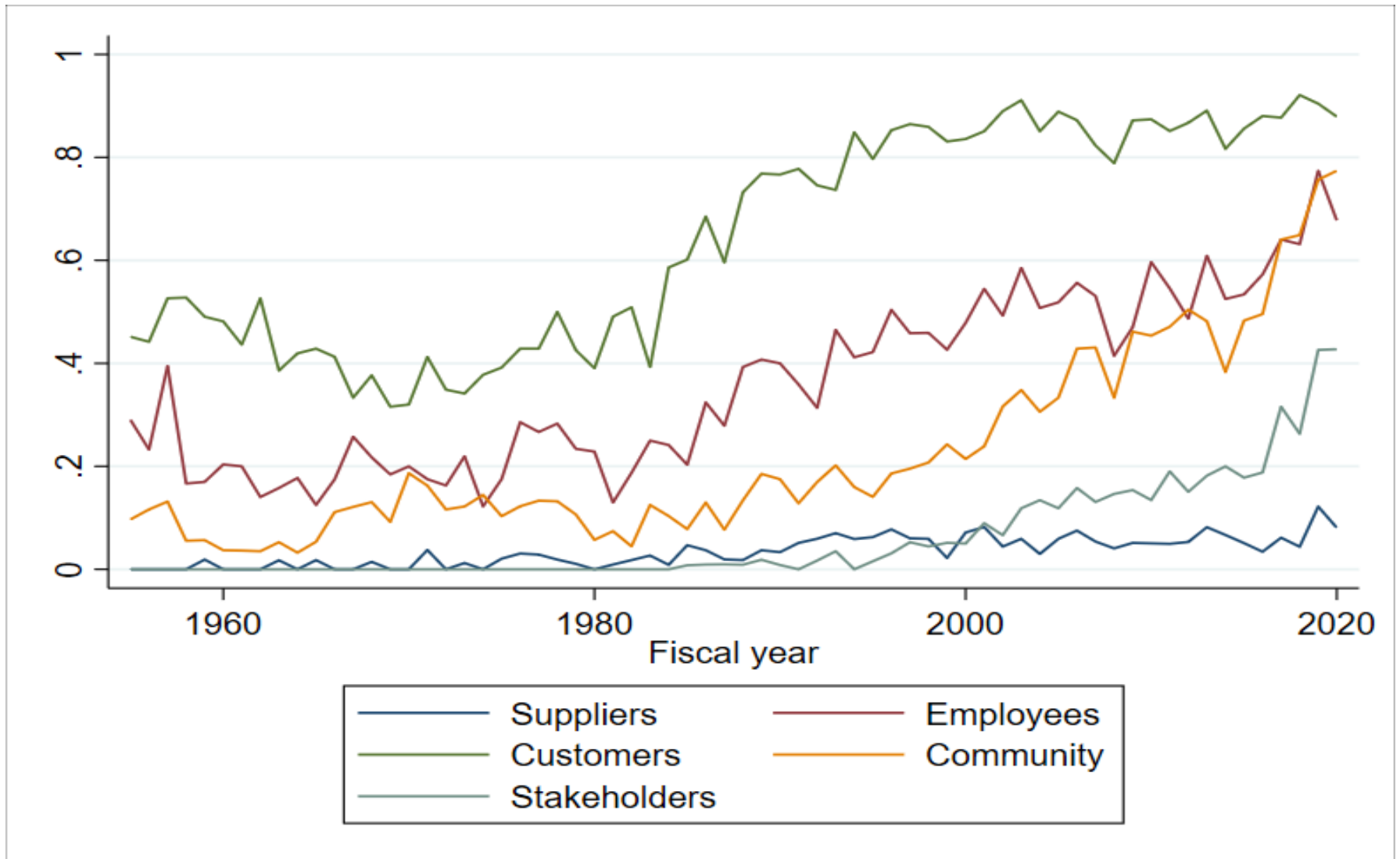
Key Trends

1. Explosion in the number of goals
2. Most mentioned a shareholder-oriented goal even before the 1970s
3. SVM(narrow) exploded in the 1980s and 1990s, falling off recently.
4. Surge in stakeholder goals in the 1980s and 1990s, in societal goals with fits and starts.

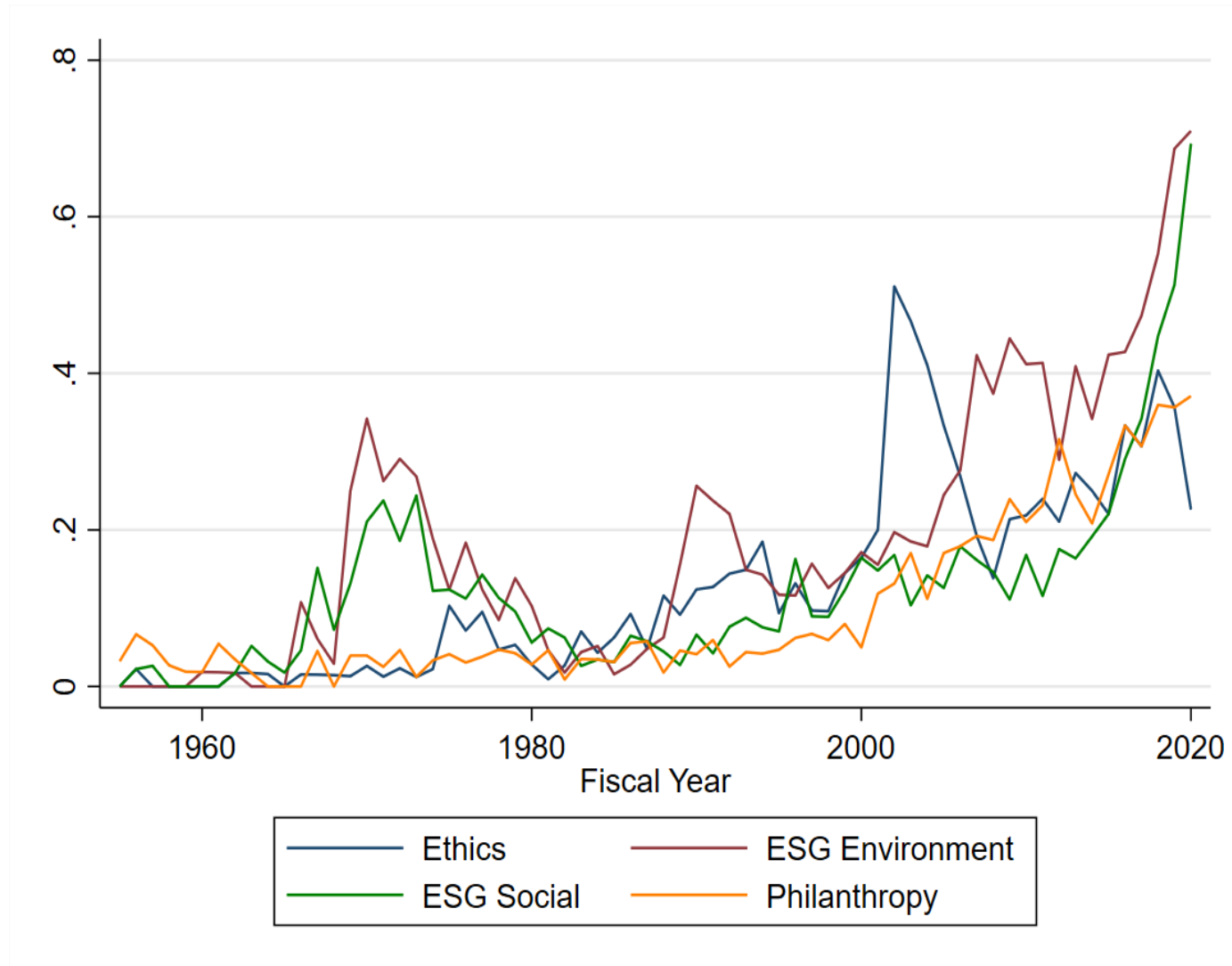
Major Goals



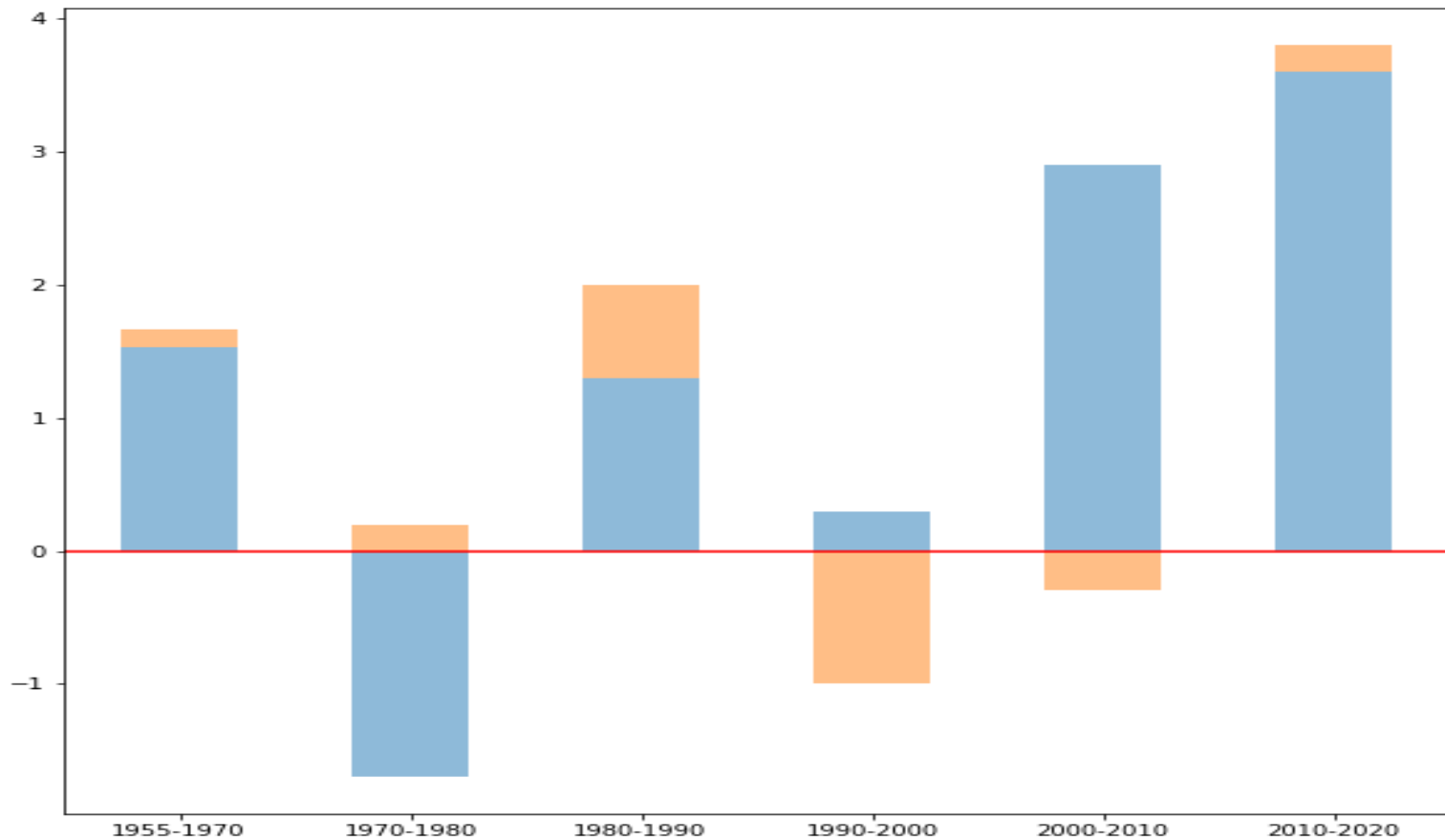
Stakeholder Goals



Societal Goals

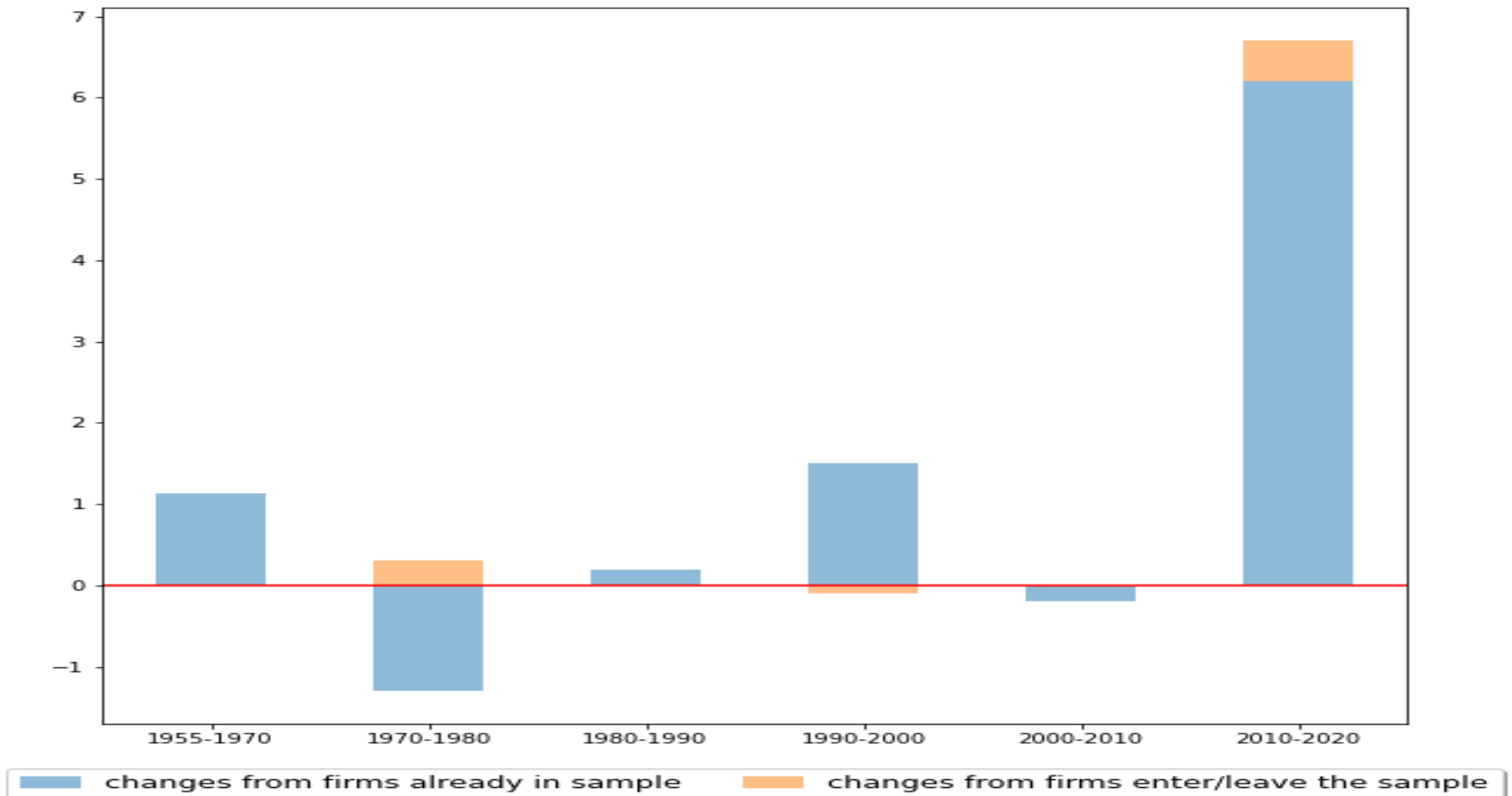


Where are changes coming from? ESG Environmental



changes from firms already in sample changes from firms enter/leave the sample

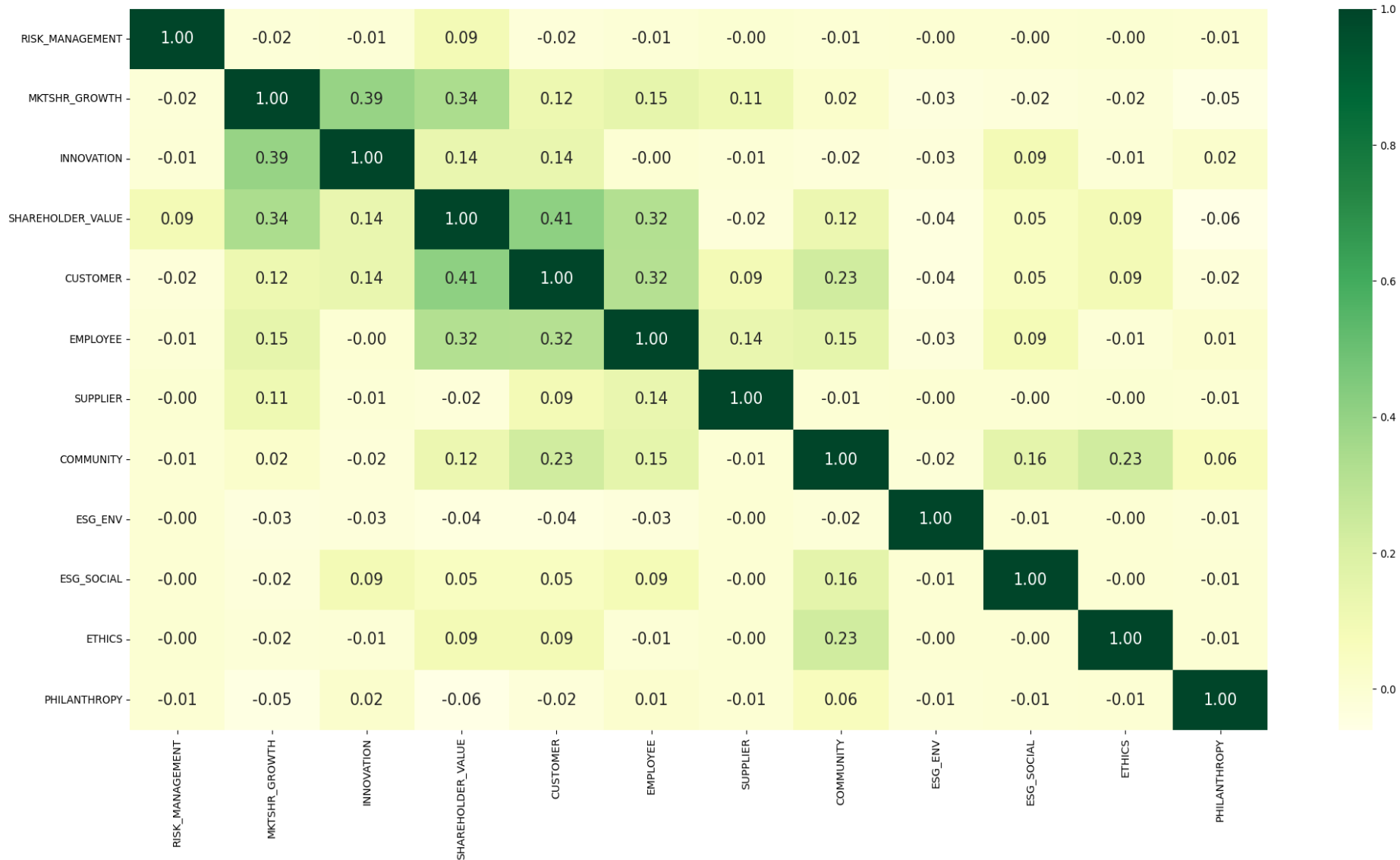
Where are changes coming from? ESG Social



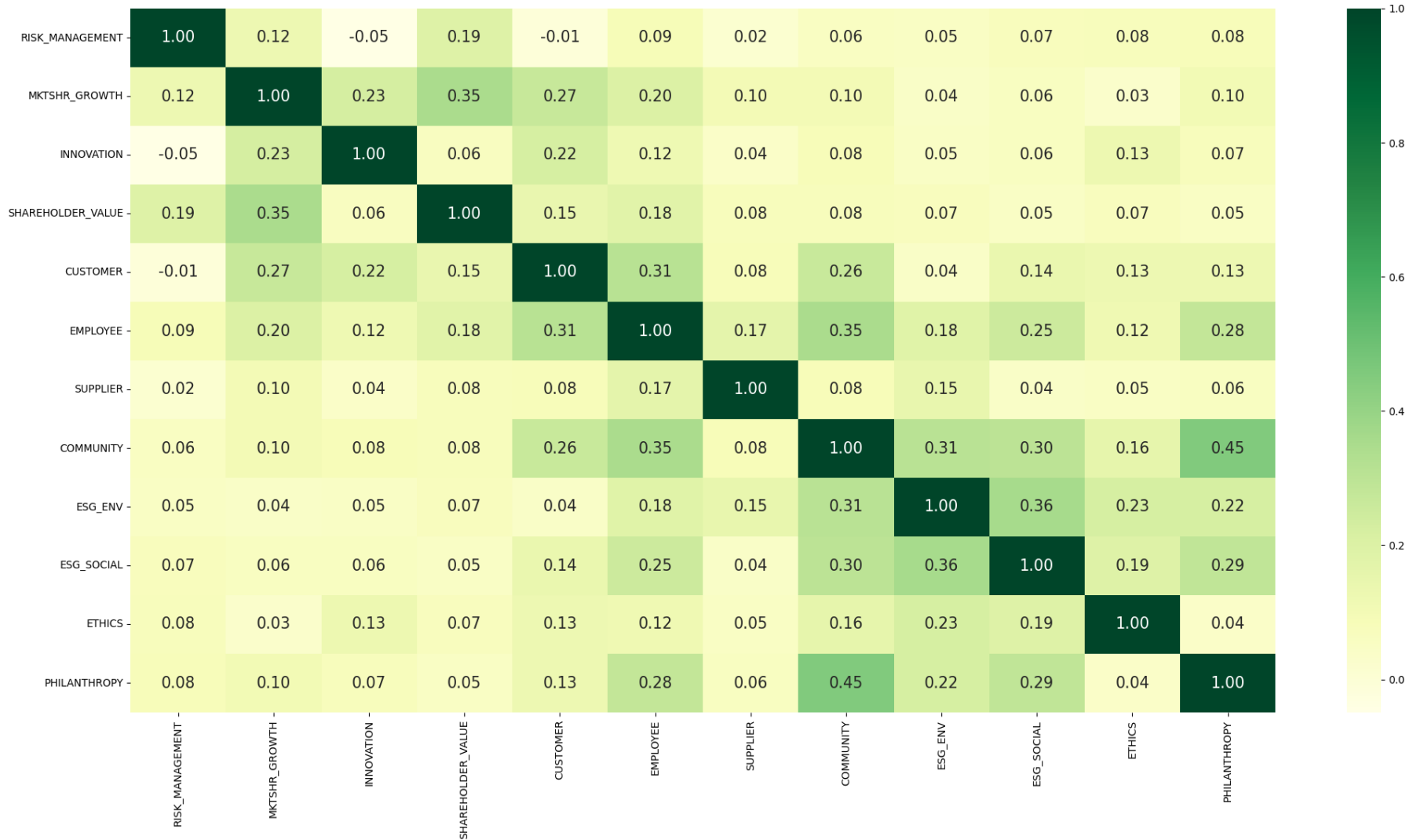
Key Trends

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5. Initially, performance goals correlated, later a distinct cluster emerges around societal goals
 - Employee goal only commonality

1955-1959



2015-2020



2

**Why do firms' stated goals
change over time?**

Rationales

1. Respond to
 - a. Changed audience power
 - b. Changed audience preferences
2. Commit to
 - a. Improve firm-specific situation
 - b. Specific stakeholders

1.a: Respond to Changes in Audience Power

I. Shareholders

- Increase in institutional ownership after 1980s
- Hostile takeover in 1980s

II. Customers

- Increase in foreign competition after 1980

Institutional Ownership and Takeover Pressure SVM Narrow as a Goal

	(I) SVM (Narrow) 1980 to 2000	(II) SVM (Narrow) 1980 to 2000
Institutional ownership	0.179*** (0.066)	0.225*** (0.078)
Takeover pressure	0.536*** (0.172)	0.511*** (0.170)
Log(Asset)	0.029*** (0.009)	0.043*** (0.015)
Year FE	Yes	Yes
Industry FE	No	Yes
R-squared	0.127	0.151
Observation	2111	2111

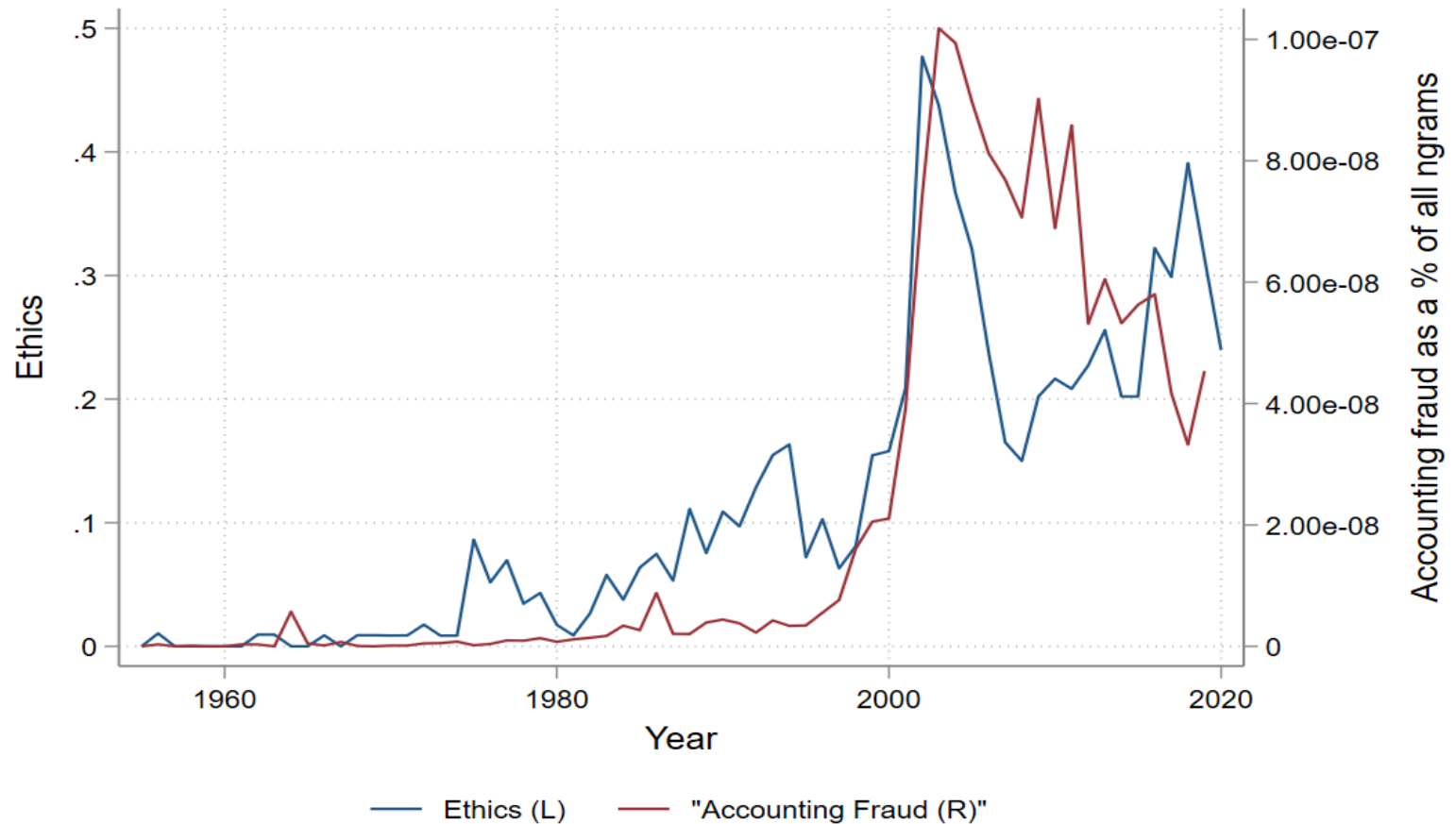
Increase in Foreign Competition Customer Goal

	(I)	(II)	(III)
SIC-2 digit Imported Share	0.152** (0.068)		0.082 (0.077)
Consumer-Facing SIC Industry=1		0.056*** (0.014)	0.035** (0.017)
Consumer-Facing SIC Industry=1 # SIC-2 digit Imported Share			0.250** (0.099)
Ln(Assets)	0.022*** (0.005)	0.025*** (0.005)	0.021*** (0.005)
Constant	0.364*** (0.050)	0.287*** (0.048)	0.355*** (0.051)
Year FE	Y	Y	Y
Industry FE	Y	Y	Y
R-squared	0.386	0.398	0.389
Observations	7609	8307	7573

1.b Respond to Changes in Audience Preferences

- Important events and public perception

Ethics Objective and “Accounting Fraud”



ESG Environment Objective and Oil Spills

	(I) ESG ENV	(II) ESG ENV
Energy	0.180*** (0.015)	0.181*** (0.015)
Oil spill x Energy	0.187*** (0.061)	0.188*** (0.061)
Log(Asset)		-0.002 (0.003)
Year FE	Yes	Yes
Industry FE	No	No
R-squared	0.228	0.227
Observation	8369	8303

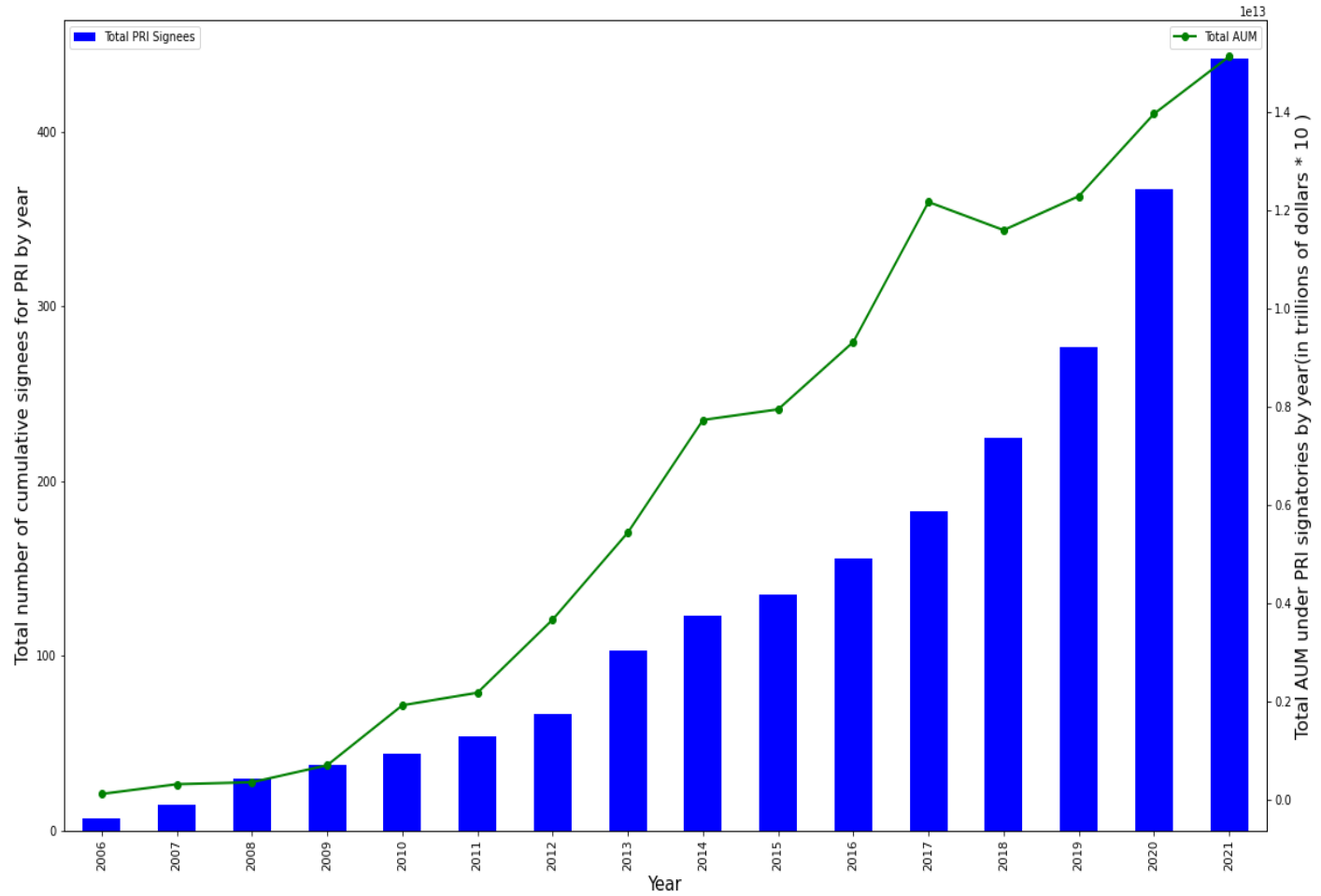
1.b Respond to Changes in Audience Preferences

- Important events and public perception
- Changes in institutional shareholder preferences

Principles of Responsible Investing

- In 2005 then UN Chairman Kofi Annan gathered a 20-person committee to develop the Principles for Responsible Investment.
- The committee elaborated six principles that commit signatories to incorporate ESG issues into investment analysis and their ownership policies and practices.
- In the years following the elaboration of the principles, an increasing number of institutional investors signed up to uphold these principles.

PRI Ownership



2.A Commit to Improve Firm-Specific Situation

Promising better performance 1

Shareholder Value Objective vs Profitability/Value

	(I)	(II)	(III)	(IV)
	SVM (Narrow)	SVM (Narrow)	SVM (Narrow)	SVM (Narrow)
Tobin's Q	-0.043*** (0.006)		-0.044*** (0.007)	
EBITDA/Asset		-0.278*** (0.068)		-0.286*** (0.071)
Log(Asset)	0.009* (0.006)	0.007 (0.005)	0.010 (0.007)	0.005 (0.006)
Year FE	Yes	Yes	Yes	Yes
Industry FE	No	No	Yes	Yes
R-squared	0.235	0.250	0.252	0.266
Observation	5588	6860	5588	6860

Promising better performance 2

Risk Management Objective vs Leverage

	(I) Risk Mgt	(II) Risk Mgt	(III) Risk Mgt	(IV) Risk Mgt
Book Leverage	0.186*** (0.033)		0.193*** (0.035)	
Interest Expense/EBITDA		0.276*** (0.039)		0.240*** (0.040)
Log(Asset)	-0.004 (0.004)	-0.003 (0.004)	-0.020*** (0.005)	-0.019*** (0.005)
Year FE	Yes	Yes	Yes	Yes
Industry FE	No	No	Yes	Yes
R-squared	0.128	0.138	0.157	0.164
Observation	6838	6765	6838	6765

Promising better performance 3

ESG Environment Objective and EPA Fines

	(I) ESG Environment	(II) ESG Environment	(III) ESG Environment
Log(EPA Penalty) _{t-1}	0.009*** (0.003)		
No. of EPA Penalties _{t-1}		0.092*** (0.035)	
No. of Cases Registered _{t-1}			0.055 (0.036)
Constant	0.222*** (0.005)	0.223*** (0.005)	0.224*** (0.005)
Year FE	Y	Y	Y
Industry FE	Y	Y	Y
R-squared	0.272	0.271	0.271
Observations	5345	5345	5345

2.b Commit to Specific Shareholders

Innovation and R&D

	(IV) Innovation	(V) Innovation	(VI) Innovation
R&D Expense/Asset	1.840*** (0.308)		
Log(Patent)		0.041*** (0.005)	
Log(Citation)			0.029*** (0.004)
Log(Asset)	0.029*** (0.009)	-0.017* (0.009)	-0.012 (0.009)
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
R-squared	0.262	0.232	0.229
Observation	3913	4596	4596

3

**Do managers mean what they
say?**

	% of pay that is equity based				
	1955-2020	1955-1979	1980-2020	1980-2020	1980-2020
	(I)	(II)	(III)	(IV)	(V)
Shareholder Value	3.417*** (1.197)	1.190 (1.207)	4.716** (2.114)	3.956* (2.137)	
Share. Value Narrow				2.346** (1.178)	2.866** (1.168)
Ln(Assets)	-1.410*** (0.533)	1.961** (0.786)	-2.332*** (0.704)	-2.427*** (0.707)	-2.379*** (0.707)
Constant	43.97*** (5.311)	-6.115 (6.230)	64.55*** (7.835)	65.36*** (7.857)	68.17*** (7.747)
Year-FE	Y	Y	Y	Y	Y
FF30-FE	Y	Y	Y	Y	Y
Observations	2834	917	1917	1917	1917
Adjusted R-Squared	0.492	0.126	0.360	0.362	0.360
Mean of dep. variable	32.62	9.82	43.71	43.71	43.71

Non-Financial Metrics

	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)
	Performance Objectives			Stakeholder Objectives				Social Objectives		
	Risk Managem ent	Innovation	Community	Customer	Employee	Supplier	Stakeholder	ESG Envir.	ESG Social	Ethics
Objectives	-0.0405 (0.0348)	0.177*** (0.0605)	0.0158 (0.0117)	0.142 (0.0946)	-0.0618 (0.0699)	-0.0347 (0.0328)	0.0125 (0.0231)	0.0623** (0.0274)	0.103* (0.0596)	0.0355 (0.0257)
Log(Assets)	0.0448*** (0.0125)	-0.0118 (0.0218)	0.000556 (0.00406)	0.0161 (0.0248)	-0.0181 (0.0250)	-0.00982* (0.00507)	0.0121* (0.00700)	-0.00906 (0.00985)	-0.0103 (0.0182)	0.0104 (0.00816)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.0414	0.0662	0.0250	0.0330	0.0512	0.0164	0.0182	0.0204	0.0203	0.0641
Observations	447	447	447	447	447	447	447	447	447	447
Mean dep. var. (cond)	1.64	1.23	0.79	1.29	1.19	0.76	0.89	1.01	1.03	0.93
Mean dep. var. (uncond)	0.04	0.28	0.01	0.31	0.38	0.02	0.03	0.07	0.24	0.04

4

**Do stated goals make a
difference in performance?**

I. ESG ratings by Sustainalytics

- Sustainalytics provides analytical environmental, social and governance (ESG) firm-level weighted scores between 1-100, (higher score is deemed good)
- Year Range 2010-2020

Aggregate Sustainability Scores

	(I) Total ESG Score	(II) Total ESG Score	(III) Environmen t Score	(IV) Social Score
ESG Environment _{t-1}	1.786*** (0.481)		2.980*** (0.717)	
ESG Social _{t-1}		1.305** (0.578)		2.420*** (0.691)
Constant	59.95*** (0.283)	60.44*** (0.230)	59.11*** (0.423)	58.12*** (0.266)
Year FE	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y
R-squared	0.354	0.349	0.381	0.378
Observations	1134	1134	1133	1133

		= Positive and Significant
		= Negative and Significant
External/Outcome	Environmental Sub-Scores	Social Sub-scores
	Coefficient on L.ESG Environment	Coefficient on L.ESG Social
	Environmental Fines and Non-monetary Sanctions	Employee Turnover Rate
	Operations Related Controversies or Incidents	Health and Safety Certifications
	Carbon Intensity	Trend in Lost-Time Incident Rate
	Carbon Intensity Trend	Number of Fatalities
	Oil Spill Reporting and Performance	Social Supply Chain Incidents
	Waste Intensity	Society & Community Related Controversies or Incidents
	Water Intensity	Employee Related Controversies or Incidents
	Environmental Supply Chain Incidents	Percentage of Flights Delayed More Than 15 Minutes
	Products & Services Related Controversies or Incidents	Percentage of Employees Covered by Collective Bargaining Agreements
	% Primary Energy Use from Renewables	Top Employer Recognition
	Revenue from Clean Technology or Climate Friendly Products	Customer Related Controversies or Incidents
	Automobile Fleet Average CO2 Emissions	Percentage of Temporary Workers
	Carbon Intensity of Energy Mix	Value of Drug Donations Relative to EBIT
Trend Automobile Fleet Average Fleet Efficiency		
Internal/Input	External Certification of EMS	External QMS Certifications
	External Environmental Certification Suppliers	Policy on Freedom of Association
	Formal Environmental Policy	Percentage of Temporary Workers
	Environmental Management System	Supply Chain Audits
	Participation in Carbon Disclosure Project (Investor CDP)	Programmes to Increase Workforce Diversity
	Scope of Corporate Reporting on GHG Emissions	Formal Policy on Working Conditions
	Programmes and Targets to Reduce GHG Emissions from own operations	Employee Training
	Programmes and Targets to Increase Renewable Energy Use	Programmes and Targets to Reduce Health and Safety Incidents
	Reporting Quality Non-Carbon Environmental Data	Programmes to Address HIV/AIDS Among its Workforce
	Programmes and Targets to Protect Biodiversity	Health and Safety Management System
	Guidelines and Reporting on Closure and Rehabilitation of Sites	Scope of Social Supply Chain Standards
	Environmental and Social Impact Assessments	Supply Chain Monitoring System
	Programmes & Targets to Reduce Hazardous Waste Generation	Quality of Social Supply Chain Standards
	Programmes & Targets to Reduce Air Emissions	Membership in the Electronic Industry Citizenship Coalition (EICC)
	Programmes & Targets to Reduce Water Use	Policy on Conflict Minerals
	Other Programmes to Reduce Key Environmental Impacts	Conflict Minerals Programmes
	GHG Reduction Programme	Reporting on Supply Chain Monitoring and Enforcement
	Programmes and Targets to Improve the Environmental Performance of Own Logistics	External Social Certification of Suppliers
	Programmes and Targets to Phase out CFCs and HCFCs in Refrigeration Equipment	Fair Trade Products
	Formal Policy or Programme on Green Procurement	Supply Chain Management
	Programmes to Improve the Environmental Performance of Suppliers	
	Programmes and Targets to Stimulate Sustainable Agriculture	Public Position Statement on Responsible Marketing
	Programmes and Targets to Stimulate Sustainable Aquaculture/Fisheries	Public Policy Statement on Advertising Ethics
	Food Beverage & Tobacco Industry Initiatives	Policy Statement on Data Privacy
	Programmes and Targets to Reduce GHG Emissions from Outsourced Logistics Services	Programmes to Minimise Health Impact of Electronic and Magnetic Fields
	Data on Percentage of Recycled/Re-used Raw Material Used	Outsourcing of Core Editorial Tasks
	Data on Percentage of FSC Certified Wood/Pulp as Raw Material	Corporate Wide Editorial Guidelines
	Programmes and Targets to Promote Sustainable Food Products	Policy on Conflicts of Interest
	Food Retail Initiatives	Public Position Statement on Health Consequences of Products
	Sustainability Related Products & Services	Programmes and Targets to Reduce Energy/Water Use by Customers
	Systematic Integration of Environmental Considerations at R&D Stage (Eco-design)	Adherence to WHO Ethical Criteria for Medicinal Drug Promotion
	Programmes and Targets for End-of-Life Product Management	Activities in Sensitive Countries
	Organic Products	Human Rights Policy
	Policy on Use of Genetically Modified Organisms (GMO) in Products	Community Engagement Programmes
	Environmental & Social Standards in Credit and Loan Business	Programmes and Targets to Promote Access to Financial Services for Disadvantaged
	Responsible Asset Management	Policies and Management Systems on Access to Medicines
	Sustainability Related Financial Services	Programmes and Initiatives to Develop Medicines for Neglected Diseases
	Emergency Response Programme-Weighted Score	Equitable Pricing Programmes for Medicines
		Policies on Access to Health Care
		Programmes to Support Independent Media
	Policy on Indigenous People and Land Rights	
	Policies and Programmes to Promote Access to Basic Services	
	Local Community Development Programmes	
	Programmes to Address Digital Divide	
	Policy on Drug Donations	
	Guidelines for Philanthropic Activities and Primary Areas of Support	
	Corporate Foundation	
	Percent Cash Donations of NEBT	

II. Long-Term Performance

- We look at various performance measures 5 and 10 years after an objective is stated in the shareholder letter
- We control for
 - Initial profitability (ROA)
 - Initial book leverage
 - Industry fixed effects
 - Time fixed effects

	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)
	Asset growth over 5-years		Revenue growth over 5-years		Cumulative Stock Return over 5-years		Growth in EBITDA/Revenue		Growth In Dividend-per-share over 5-years	
Shareholder Value	-0.073**	-0.072**	-0.079***	-0.073***	-0.104	-0.084	0.010	0.006	-0.018	-0.017
Narrow	(0.032)	(0.031)	(0.026)	(0.026)	(0.093)	(0.078)	(0.050)	(0.055)	(0.103)	(0.104)
Market Share Growth		-0.006		-0.039*		-0.148		0.031		-0.006
		(0.024)		(0.021)		(0.123)		(0.068)		(0.035)
Profitability	1.836***	1.836***	0.477**	0.477**	-3.094**	-3.086**	-0.494	-0.494	0.084	0.084
	(0.232)	(0.232)	(0.197)	(0.197)	(1.376)	(1.367)	(1.079)	(1.079)	(0.351)	(0.351)
Leverage	-0.554***	-0.553***	-0.349***	-0.346***	-0.206	-0.191	-0.243	-0.246	-0.262	-0.262
	(0.126)	(0.126)	(0.108)	(0.107)	(0.448)	(0.437)	(0.207)	(0.204)	(0.327)	(0.327)
Ln(Assets)	0.048***	0.048***	0.057***	0.057***	-0.221	-0.223	0.005	0.005	0.097	0.097
	(0.014)	(0.013)	(0.012)	(0.012)	(0.154)	(0.155)	(0.028)	(0.028)	(0.079)	(0.079)
Constant	-0.374**	-0.370*	-0.300	-0.269***	-0.038	-0.021	-0.036	-0.067	-0.358	-0.352
	(0.180)	(0.215)	(0.294)	(0.087)	(0.438)	(0.442)	(0.388)	(0.209)	(0.259)	(0.258)
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
R-squared	0.144	0.144	0.207	0.208	0.069	0.071	0.017	0.017	0.049	0.049
Observations	5612	5612	5611	5611	4930	4930	5604	5604	5158	5158

Conclusion

- Business goals have proliferated over time as a result of
 - changed audience power
 - changed audience preferences
- Firms also use goal announcements to commit to
 - Improve specific situation
 - Specific stakeholders
- More than a side show
- Long-term effect still to be proven