

## GS SUSTAIN

Equity Research

### Governance and Risk Management – expanding coverage, narrowing focus

#### Expanding coverage...

Since the inception of GS SUSTAIN we have measured Governance and Stakeholder engagement to supplement our search for companies able to sustain global industry leading returns on capital. Rebranded as **Governance & Risk Management**, we significantly expand our coverage from about 1,400 to approximately 3,300 companies on Governance factors and 2,200 on Stakeholder factors.

#### ... and refining our analysis

Our multi-pronged analysis first gauges a company's track record of capital allocation, followed by the organizational checks and balances necessary to perpetuate or remedy it. Finally, we evaluate companies' management of risks related to key Stakeholder relationships, including customers, employees, communities, regulators and the environment. With this report, we enhance our Governance tests and refine our Stakeholder analysis to our view of the 10 most material factors in each sector.

#### For Generalists or Specialists: Circuit breaker for risk, supplemental screen for quality

We recognize that Governance and Stakeholder factors are complex and nuanced. We therefore use this pillar of our framework as a circuit breaker where company scores suggest elevated risk across a variety of metrics. We believe this analysis can also help investors (1) better appraise what they own, (2) supplement a screen for quality, and (3) identify specific areas of potential long-term risk beyond traditional financial analysis that warrant further inquiry.

#### We find a relationship with returns durability

Using our updated scoring framework, we find that high returns companies (top quartile CROCI) that consistently passed our tests saw less degradation in their returns over the past four years than companies not meeting our tests. This outcome held in both developed and emerging markets.

#### RELATED RESEARCH

GS SUSTAIN: Refining ESG for industry leaders: a practical implementation for portfolio managers, May 22, 2014

GS SUSTAIN: Focusing on Quality: Expanding coverage and refining ESG scoring, May 22, 2014

GS SUSTAIN: ESG Global Update 2013, October 29, 2013

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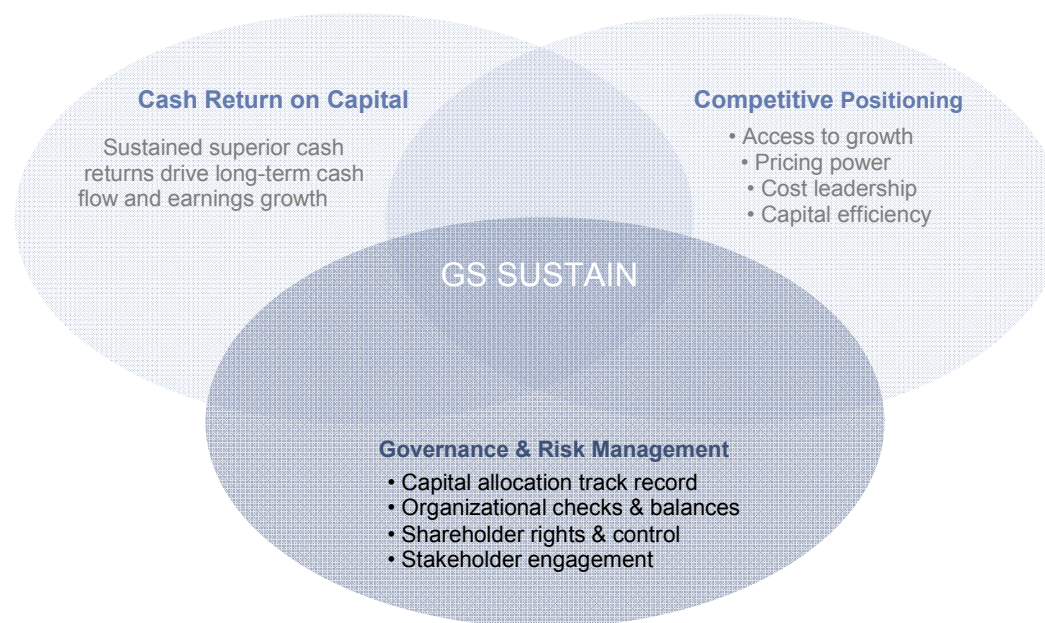
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## Measuring governance and stakeholder risks for the long-term

The GS SUSTAIN framework seeks to identify structural leaders in each industry able to compound reinvestment of high returns on capital in excess of market expectations over time. The measurement of Competitive Positioning and Governance & Risk Management aims to provide greater confidence in the long-term sustainability of those returns.

Our analysis of governance and stakeholder risks emphasizes institutional factors that have a bearing on the sustainability of a company's business model and its license to operate in society. We believe that the importance of a firm's engagement with these factors has increased in the new era of increased investor activism, heightened social scrutiny and expanded regulatory oversight, as the social contract between corporations and society has evolved. In addition to good governance, the third pillar of our framework seeks to offer an indication of an organization's likely success in navigating the elevated risks presented by a 21<sup>st</sup> century operating environment. A lack of public engagement with these risks suggests to us that a company may be at greater risk of compromising its leadership position over a longer-term horizon.

**Exhibit 1: Our approach emphasizes structural positioning across financial, competitive and governance vectors**  
The GS SUSTAIN analytical framework



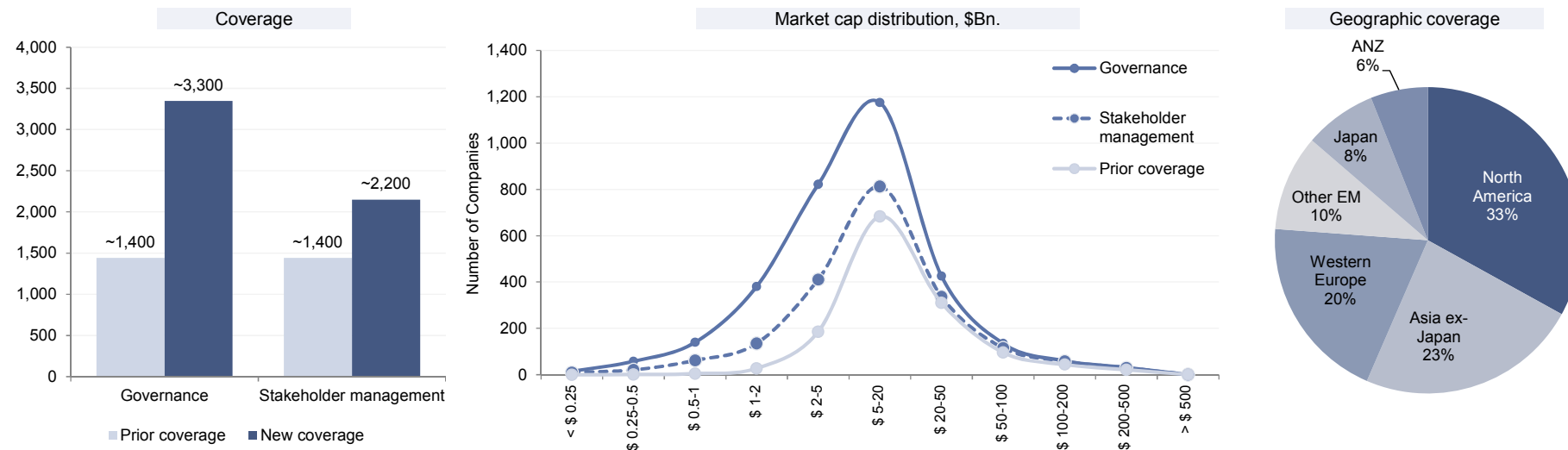
Source: Goldman Sachs Global Investment Research.

### Expanding coverage, narrowing focus

With this report, we significantly expand our governance and stakeholder risk coverage, nearly doubling our scored universe from about 1,400 companies to approximately 3,300 companies on governance factors and 2,200 on stakeholder factors. This expansion is especially apparent at the lower end of the market cap spectrum. The median market cap of our scored companies on governance factors is now roughly \$4 billion, down from \$12 billion previously, and 43% of our scored universe now stands below \$5 billion in market cap vs. just 19% prior. On stakeholder scoring, the median market cap is now less than \$6 billion, with 34% below \$5 billion in market cap.

Complemented by third-party data sources, we anticipate that our revised Governance & Risk Management analysis will be more dynamic and refreshed with greater frequency going forward, and should enable more robust and granular analysis given the greater number of companies. Our coverage is global with more than 1,000 emerging market companies scored on governance and over 600 EM companies assessed on stakeholder risks. We have also enhanced and further refined our scoring criteria in an effort to better capture the most salient determinants of governance and stakeholder risk in each sector.

**Exhibit 2: Our global Governance & Risk Management coverage has significantly expanded**



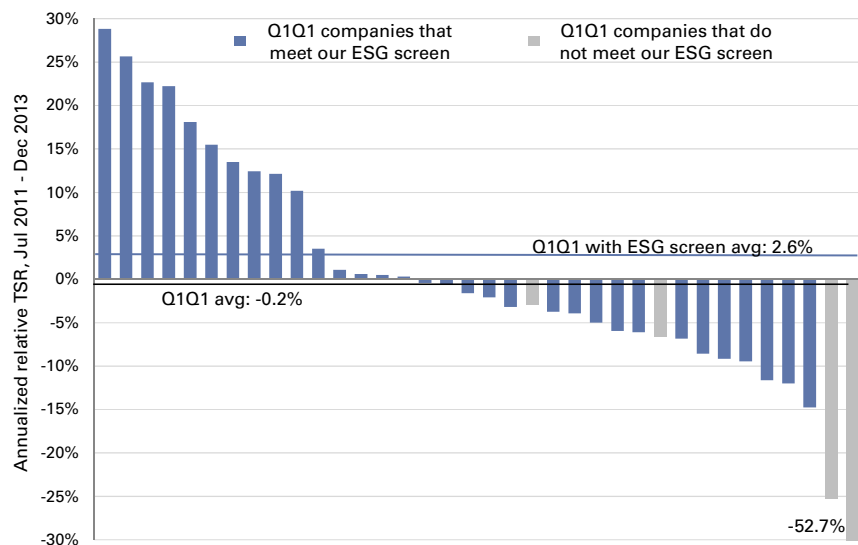
Source: Goldman Sachs Global Investment Research

### A circuit breaker for risk...

Our multi-pronged test first gauges a company’s track record of capital allocation, followed by the organizational checks and balances necessary to perpetuate or remedy it. Finally, evaluation of stakeholder engagement includes the company’s management of relationships with customers, employees, local communities, regulators and the environment necessary to sustain the business. The Governance and Risk Management pillar of our framework offers a unique tool for assessing the way an organization is governed relative to global competitors, in our view. We note, however, that our analysis is designed to be simple and directional – not comprehensive and definitive – in order to flag areas of elevated risk that may warrant further inquiry.

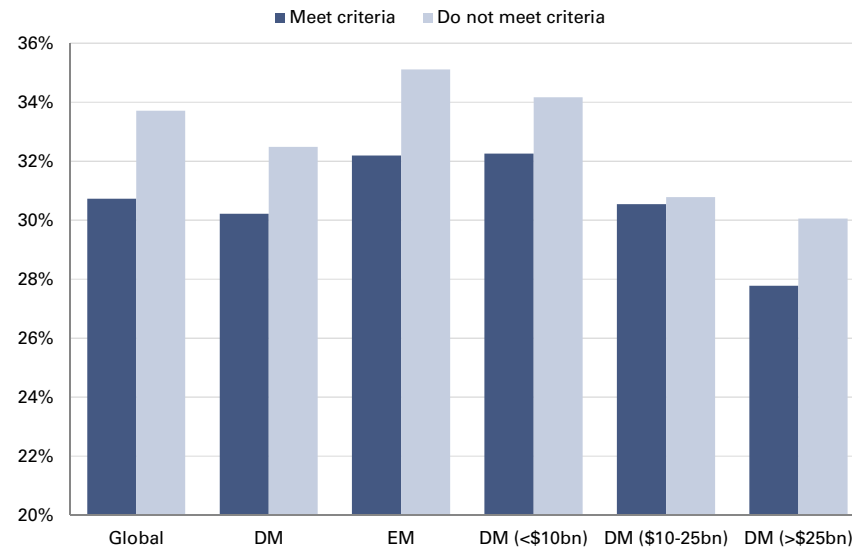
Our work to date suggests that this pillar of our analysis is best used as a circuit breaker where poor peer-relative performance or a lack of disclosure suggests limited engagement with material risk factors in a long-term context, disqualifying companies from consideration for our Global Focus List. For example, our recent back-test results show that implementing this screen would have eliminated some underperforming companies from a sample of high return on capital, well-positioned developed market companies, and thereby improved average shareholder returns (Exhibit 3). We also found that volatility was on average lower for the companies that met our 3-stage screen, and that this result was consistent across different regions and company sizes (Exhibit 4) – see *Refining ESG for industry leaders: a practical implementation for portfolio managers*, May 22, 2014. However, our views of the materiality and applicability of this analysis will continue to evolve with time given a very limited history of available data and significant inconsistencies in disclosure across geographies and companies at present.

**Exhibit 3: Our risk tests increased performance among quality companies**  
Sector-relative TSR, Q1 CROCI & Q1 positioned companies, Jul-11 to Dec-13



Source: Datastream, Goldman Sachs Global Investment Research

**Exhibit 4: Our risk screening may also help reduce volatility**  
Average annualized daily volatility, by category, Jul-11 to Dec-13



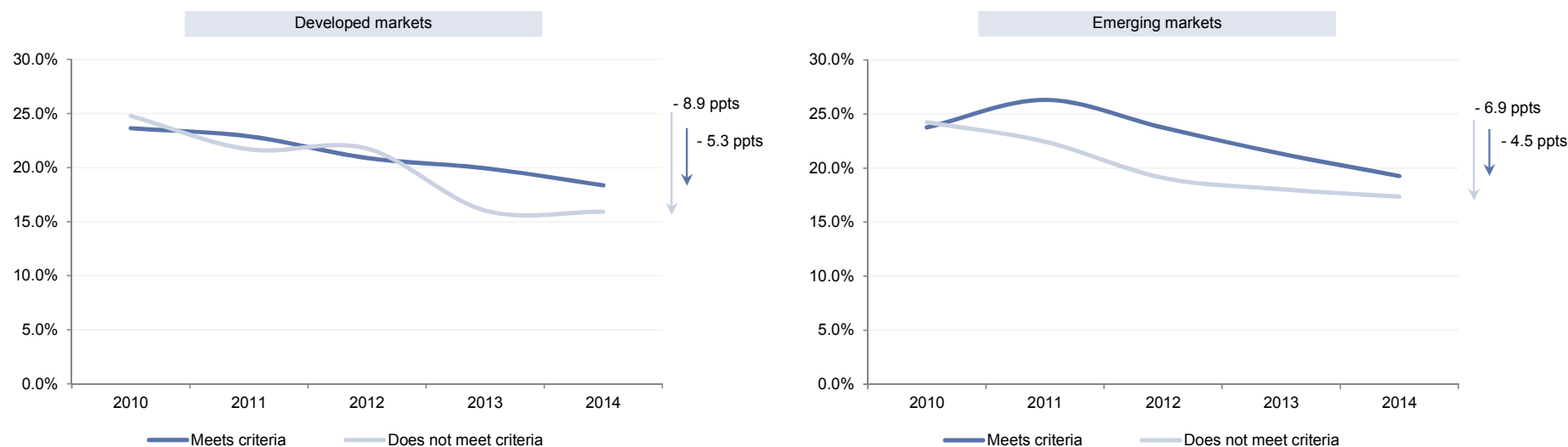
Source: Datastream, Goldman Sachs Global Investment Research

### ... and complementary tool in seeking durable returns on capital

In the context of our GS SUSTAIN investment approach, we seek to use our Governance & Risk Management analysis to help identify companies able to sustain superior sector-relative returns on capital over multi-year horizons. Using our updated scoring framework, we compared high-CROCI companies (top quartile, sector relative) that consistently met our governance and stakeholder criteria with companies that consistently have not since 2010. We found that the durability of cash returns on capital (CROCI) over the past four years was 3.6 percentage points greater for companies meeting our risk test than for those not meeting our criteria over the same period in developed markets; the durability advantage was 2.4 percentage points among emerging market companies passing our test (Exhibit 5). We add a caveat that these results span only a relatively limited time period for which we have consistent data post the global financial crisis. However, we are encouraged that the directional results appear to support the intent of our analysis, and we will continue to observe these relationships over time.

#### Exhibit 5: Companies passing our governance & risk screen saw less CROCI degradation in recent years than companies that did not pass

Median CROCI among top-quartile companies in 2010 that consistently met or did not meet our risk management tests, 2010-2014



Source: Goldman Sachs Global Investment Research

## What we measure and what has changed

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Our framework is currently weighted toward corporate governance given more consistent and uniform global disclosures in the governance field and a more clearly identifiable relationship with long-term stock price performance in our work to date (see *Refining ESG for industry leaders: a practical implementation for portfolio managers*, May 22, 2014). That said, we believe that strong independent oversight and leadership at senior levels are likely to be well correlated with greater awareness and appropriate management of the greatest risks to the business, including social and environmental issues.

### **Below, we outline the adjustments we are making to our Governance & Risk Management analysis:**

**Prior capital allocation:** We continue to measure companies' 3-year trailing return on capital and expand our payout metric to include net share repurchases, in addition to dividends. We no longer incorporate the presence or absence of related-party transactions into this test due to a current lack of broad and consistent data for this measure. However, we continue to view this as an important factor to consider, particularly in emerging markets.

**Organizational checks & balances:** We continue to measure director independence, the presence of multiple leadership roles (i.e., CEO, chairman, independent lead director), and independence of the audit function. We add average board tenure to screen for potentially elevated risk of board entrenchment and also the proportion of female directors as a simplified proxy for diversity of opinion and experience on the board.

**Key stakeholder metrics:** We further refine our scoring criteria in an effort to concentrate on the 10 most material stakeholder risk factors in each sector that are measurable and offer reasonable levels of disclosure (see Appendix). This compares with between 40-80 distinct stakeholder data points incorporated into our prior scoring framework. An additional and more subtle change is that non-disclosure now receives the same score as the lowest-performing companies on each metric, whereas previously non-disclosure received the lowest possible score (zero), below even the poorest performance. Our intent is that this adjustment helps to emphasize performance over disclosure alone.

**Exhibit 6 summarizes the factors that currently make up our Governance & Risk Management risk analysis.** Unfortunately, objective, consistent and publicly reported data are not always available for certain metrics we view as material. For example, our ongoing work on management incentives in the US points to material relationships with company and share price performance. However, comparable data are scarce in emerging markets. Rather than eliminating most EM companies from our search for global industry leaders on the basis of this non-disclosure, we suppress this metric in our framework at this stage.

Additionally, while we believe that it is important to be aware of potential impediments to external shareholders rights, we recognize that in practice external shareholders would generally only want to exercise this right if the company is performing poorly. As our investment thesis for companies on the GS SUSTAIN Focus List is predicated on a belief that a company currently generates and will continue to generate industry-leading returns on capital, we believe that an external shareholder's reduced ability to influence the company is of limited practical significance within our framework. Therefore, we have chosen to not include this metric in our screen for the GS SUSTAIN Focus List, although we continue to analyze company performance on these measures in considering governance broadly.

**Exhibit 6: GS SUSTAIN: Five key questions for governance & stakeholder risk**

	(1) Prior capital allocation	(2) Management incentives	(3) Organizational checks & balances	(4) Shareholder rights & control	(5) Key stakeholder management
<b>Critical questions</b>	<i>Does the management have a track record of allocating capital in external shareholders interests?</i>	<i>Are management incentives designed to align interests with external shareholders?</i>	<i>Are sufficient checks &amp; balances on management behavior embedded in the governance infrastructure?</i>	<i>Do external shareholders have sufficient influence over board appointments and potential corporate actions?</i>	<i>Does management show engagement with critical stakeholders?</i>
<b>Metrics</b>	<p>How high is the 3-year average CROCI/ROE compared to industry peers?</p> <p>How high is the 3-year average total payout ratio (dividends plus net share repurchase) compared to industry peers?</p> <p>Is the capital structure appropriate for the company given its industry?</p>	<p>Does the company disclose the composition of senior management compensation?</p> <p>Does share-based compensation provide for a higher proportion of CEO pay?</p> <p>What key performance indicators drive incentive compensation plans?</p>	<p>What proportion of Board Directors are independent?</p> <p>Are there multiple leadership roles at the most senior level?</p> <p>Are there potential risks to auditor independence?</p> <p>Are there elevated risks of board entrenchment or a lack of diverse viewpoints on the board?</p>	<p>Do all shareholders have voting rights in line with their economic interests?</p> <p>Is the Board of Directors "staggered", without annual elections?</p> <p>Are there anti-takeover provisions?</p> <p>Do block shareholders exist to effectively reduce a smaller shareholder's influence?</p>	<p>Is the company taking measurable steps to ensure:</p> <p>Talent retention and employee health?</p> <p>A well managed supply chain?</p> <p>Constructive community relations?</p> <p>Ethical business behavior?</p> <p>Environmental stewardship?</p>
Currently include in Governance & Risk Mgmt screen when selecting our Focus List?	✓	✗	✓	✗	✓
Rationale		Lack of data in EM companies causes them to be screened out despite following local reporting conventions		Shareholders in high performing companies are less likely to require these channels of engagement	

Note: For 'Prior capital allocation' our analysis of returns on capital and payout ratios should be seen as complementary. We are seeking to identify those companies with both low returns on capital and a low payout ratio. Companies that score well on either metric are acting in external shareholder interests by either creating value through high return investments or by returning capital to shareholders.

Source: Goldman Sachs Global Investment Research



## A unique tool in screening for global quality

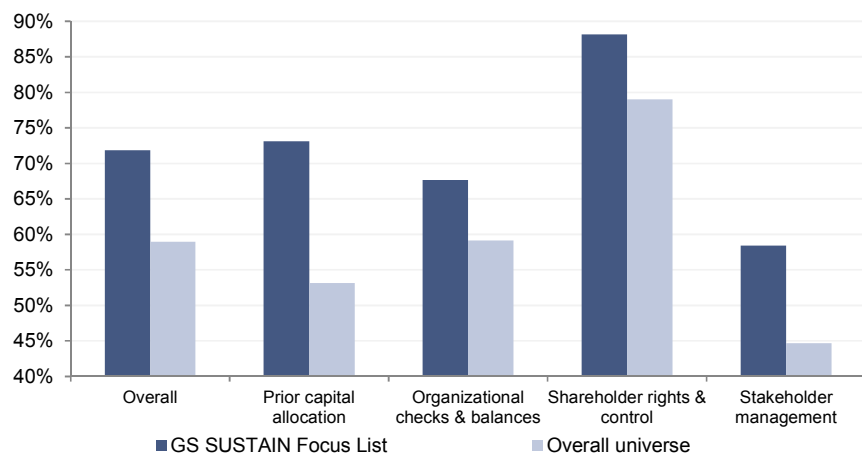
**We believe our scores provide a unique tool for analyzing governance and stakeholder risk.** Our analysis can be used as a directional reference for gauging a company’s capital allocation track record, governance practices and other potential stakeholder risks that may lie beyond the scope of traditional financial and industry analysis. This pillar of our framework can also be used as a springboard from which to delve deeper into more granular governance concerns or dialog with companies.

We have calibrated our screen to identify laggards (approximately the lowest 15% of companies) on each individual test. In total, 33% of companies do not currently meet the criteria for one or more tests, with the remainder eligible for our Global Focus List. Average scores for companies on our GS SUSTAIN Focus List stand meaningfully higher than peers across all of our tests (Exhibit 7).

Failure rates remain generally higher among emerging markets (Exhibit 8), driven principally by governance factors (organizational checks & balances) and to a lesser extent stakeholder performance (Exhibit 9). Japan is an exception among developed markets with a failure rate higher than all major global regions including emerging markets, due both to high failure rates on both prior capital allocation (31%) and checks & balances (32%). On prior capital allocation, there is relatively little variation among failure rates globally apart from Japan, though Japan stands out with the lowest failure rate on shareholder rights. While Japan currently scores lower than global peers, we believe that recent initiatives to improve corporate governance and the focus on returns on capital in Japan should help improve these scores toward world norms (see our Japan Portfolio Strategy report *Setting the Bar: Corporate Governance Code*, December 16, 2014). On stakeholder management, Western Europe stands out positively among DMs followed by Japan and ANZ, while LatAm scores best among EMs.

**Exhibit 7: GS SUSTAIN Focus List names tend to score well on all tests**

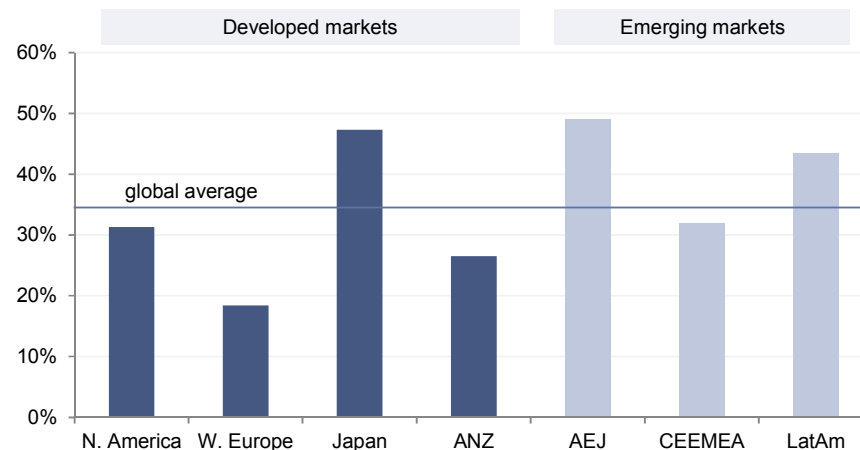
Average score of GS SUSTAIN Focus List constituents vs. overall universe



Source: Thomson Reuters, Bloomberg, Goldman Sachs Global Investment Research, FactSet

**Exhibit 8: Emerging markets and Japan have higher failure rates**

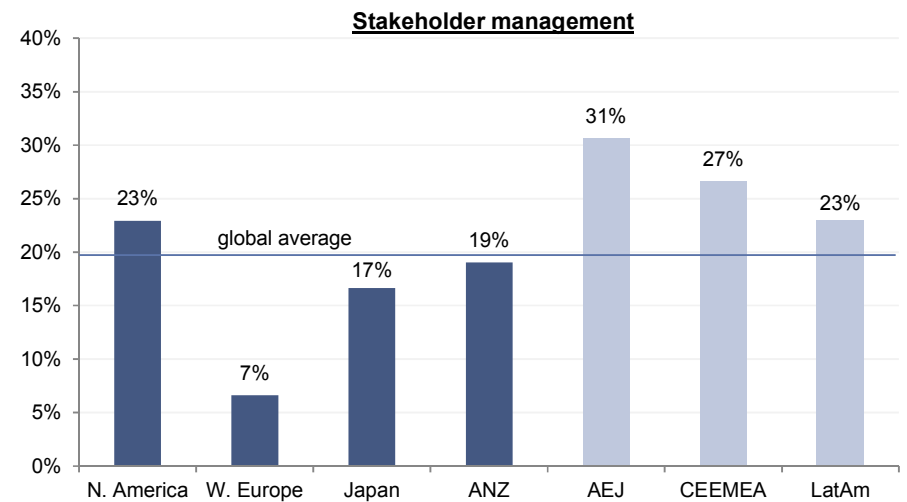
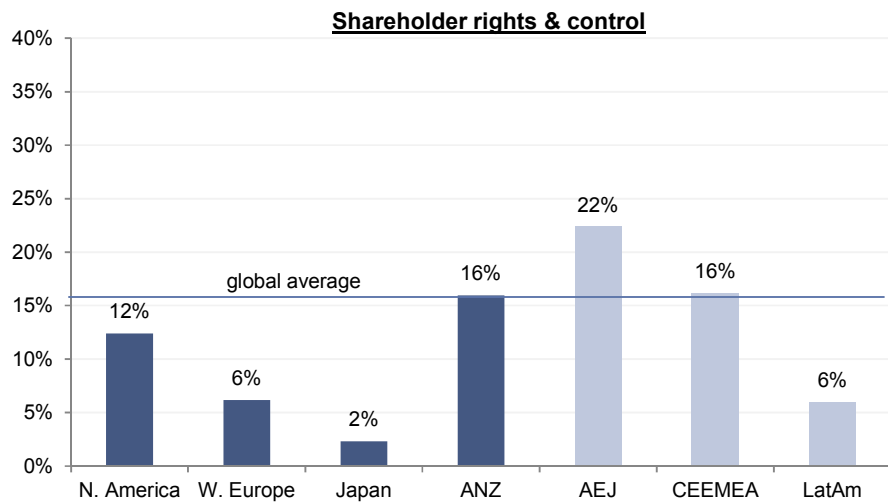
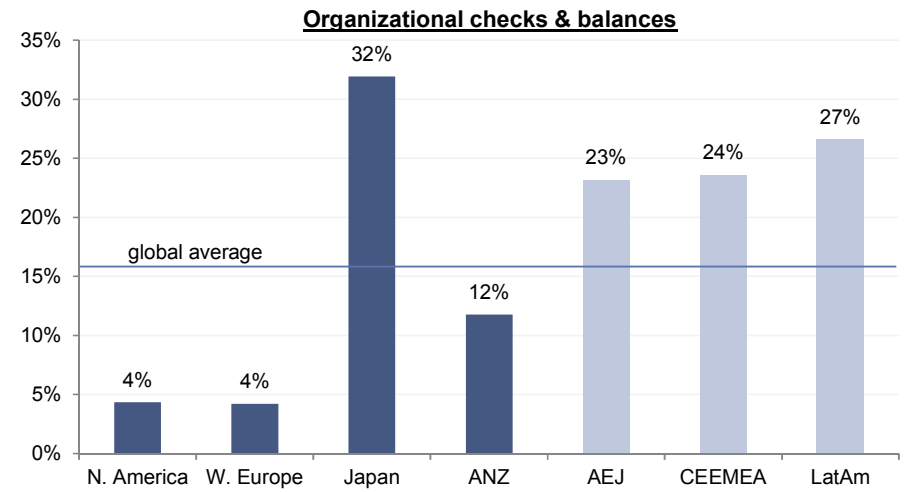
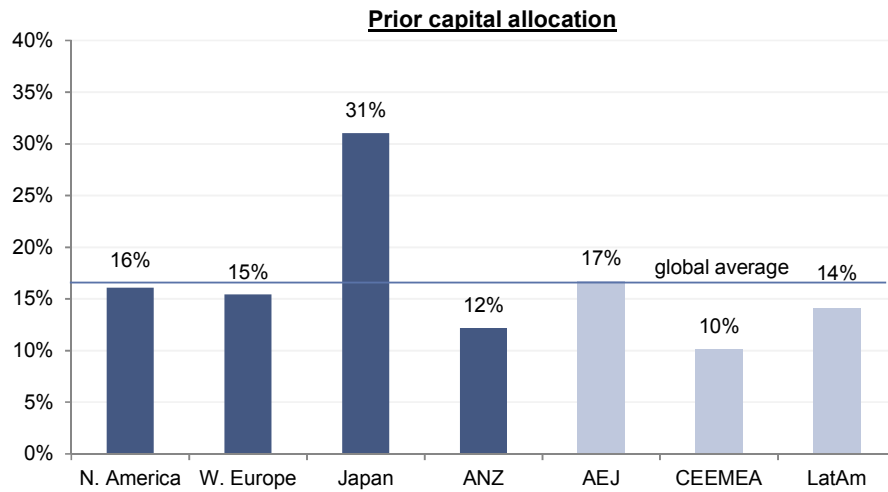
Percent of companies that fail one or more of our prior capital allocation, organizational checks & balances and stakeholder management tests, by region



Source: Thomson Reuters, Bloomberg, Goldman Sachs Global Investment Research, FactSet



**Exhibit 9: Developed markets tend to perform better on all four tests, with the exception of Japan**  
 Failure rate by region, by sub sections



Source: Thomson Reuters, Bloomberg, Goldman Sachs Global Investment Research, FactSet

**Exhibit 10: Our Governance & Risk Management tests disqualify about one-third of our analyzed universe in total from consideration for the GS SUSTAIN Focus List**

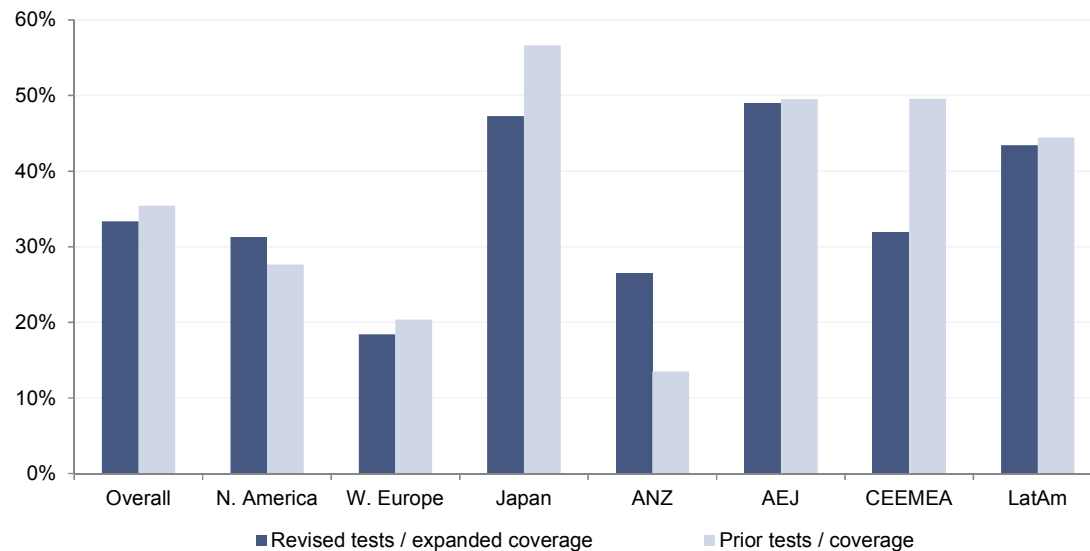
Overall and individual Governance & Risk Management test failure rates, by sector

	Overall *	Prior capital allocation	Organizational checks & balances	Shareholder rights & control	Stakeholder management
Aerospace & Defense	31%	15%	8%	3%	16%
Airlines	41%	17%	10%	23%	21%
Autos	37%	16%	24%	12%	15%
Banks	34%	15%	11%	9%	18%
Brands	37%	16%	6%	14%	16%
Cement & Construction	38%	15%	17%	28%	17%
Chemicals	32%	16%	10%	11%	19%
Consumer Staples	35%	16%	15%	15%	17%
Hospitality	17%	17%	38%	36%	15%
Insurance	37%	16%	4%	12%	26%
IT Services	32%	15%	9%	13%	28%
Machinery	23%	15%	23%	17%	16%
Media	27%	15%	10%	25%	22%
MedTech	29%	15%	6%	14%	16%
Mining	35%	15%	26%	21%	23%
Oil Producers	26%	15%	10%	17%	15%
Oil Refiners	33%	14%	14%	7%	17%
Oil Services	29%	15%	8%	12%	17%
Paper & Packaging	42%	15%	14%	16%	28%
Pharma	39%	16%	14%	14%	36%
Retail	26%	15%	18%	17%	15%
Semis	40%	16%	18%	2%	30%
Software & Internet	32%	16%	18%	18%	25%
Steel	34%	16%	21%	9%	16%
Tech Hardware	33%	15%	15%	4%	19%
Telecom	31%	15%	18%	21%	18%
Utilities	41%	15%	13%	15%	24%
<b>Overall universe</b>	<b>33%</b>	<b>16%</b>	<b>16%</b>	<b>15%</b>	<b>20%</b>

\* Overall failure rate includes companies failing on one or more of prior capital allocation, organizational checks & balances and stakeholder management

Source: Thomson Reuters, Bloomberg, Goldman Sachs Global Investment Research, FactSet

**Exhibit 11: Under our refined tests, the failure rate rises most notably in ANZ (albeit still low) and declines most in CEEMEA**  
 Percent of companies that fail one or more of our prior capital allocation, organizational checks & balances and stakeholder management tests, by region



Source: Thomson Reuters, Bloomberg, Goldman Sachs Global Investment Research, FactSet

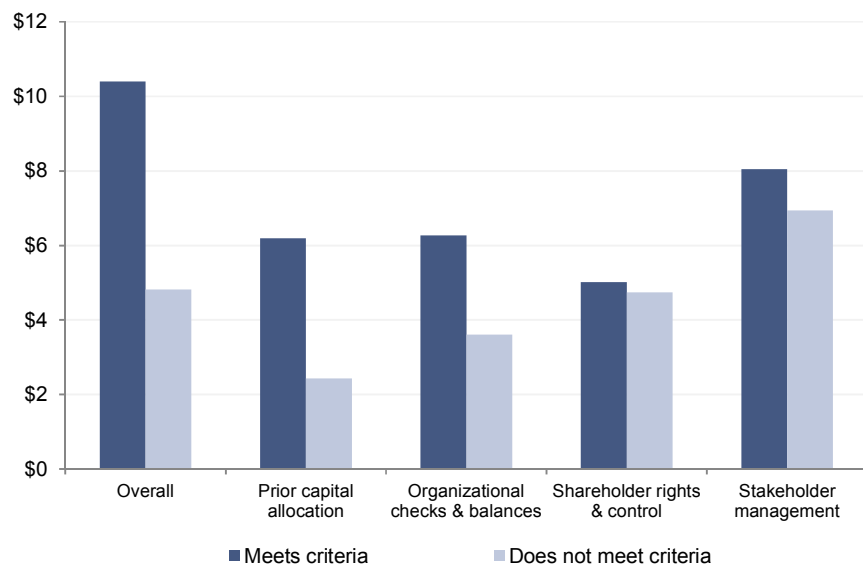
## Divergence of disclosure standards remains a challenge for governance and stakeholder analysis

We view disclosures of governance and stakeholder management as evidence of company engagement with related risks. However, many companies do not report all of the data points we seek in their public filings due to differing local reporting conventions, stage of company lifecycle (i.e., smaller companies tend to disclose less), or other factors. In the event of non-disclosure, we score companies at the lowest score to ensure that we do not reward non-disclosure. However, this can create noise in the data – non-disclosure may simply reflect compliance with local reporting standards or conventions rather than a lack of management engagement with the underlying issues. Conversely, companies may disclose in order to comply with local reporting requirements, when their managements are in fact less engaged with the underlying issues.

The noise that this effect creates is higher when disclosure levels are lower. Exhibit 13 shows the impact: correlations between reported environmental, social and governance (ESG) factors and stock performance are generally stronger when we see higher levels of disclosure. The notable exception is for governance in North America, but given how strongly most companies in the region score on this factor, we are not surprised there is limited impact on returns. We believe that disclosure levels will improve as reporting practices converge, and therefore that correlations between ESG performance and shareholder returns will also improve.

### Exhibit 12: Companies that do not meet our screen tend to be smaller

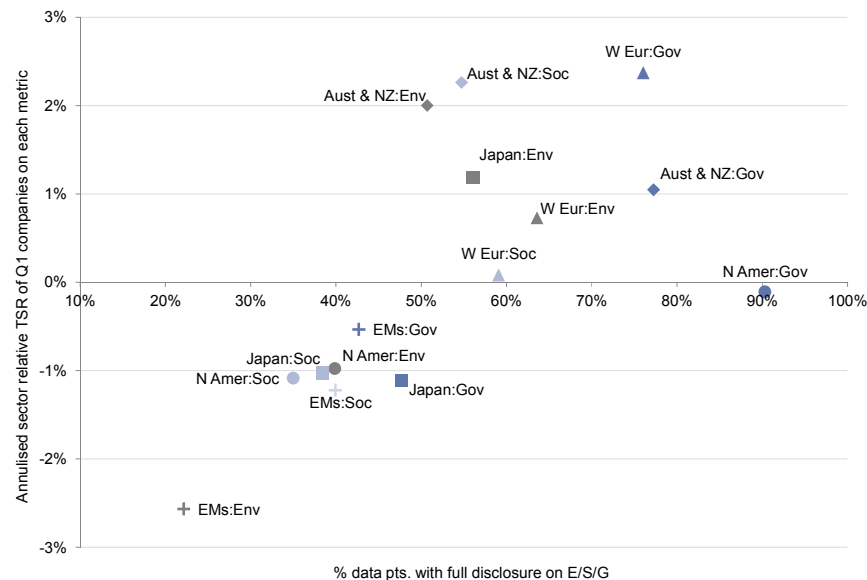
Median market cap of companies that meet and do not meet our Governance and Risk Management screen



Source: Thomson Reuters, Bloomberg, Goldman Sachs Global Investment Research, FactSet

### Exhibit 13: As ESG disclosure increases, so does the alpha relationship

Disclosure on ESG factors by region in 2010/11 & 2011/12 vs 3-period average sector-relative TSR of top quartile companies



Source: Goldman Sachs Global Investment Research

## A note on stakeholder metric selection

Although we continue to analyze and review a wide selection of data related to stakeholder management, for scoring purposes we have chosen to narrow our focus to the 10 most material metrics for each sector for which data are available. We believe this choice provides the best balance between focusing on the most critical factors that may influence future returns on capital, and not placing too much reliance on individual data points that may be impacted by differing global disclosure levels and reporting requirements.

Our selection of metrics for each sector lies at the intersection of our analysis, judgment and data availability. In some cases, there are material risk factors in a sector for which no meaningful data are available or for which only a very small proportion of the sector reports. We also tend to avoid metrics that are undifferentiated – i.e., where a large portion of a sector reports or scores uniformly. In Exhibits 14-15, we summarize the key stakeholder indicators we currently apply in each sector. The number in each box represents the percentage of disclosure on that metric among global competitors in the sector.

**Exhibit 14: The 10 key stakeholder metrics applied to each sector in our framework**

Indicator	Basic Resources								Consumer					
	Cement & Construction	Chemicals	Mining	Oil Producers	Oil refiners	Oil services	Paper & Packaging	Steel	Brands	Consumer staples	Hospitality	Media	Retail	
Employee	Training hours													
	Women in management								22%	27%	15%	35%	21%	
	Women in workforce													
	Turnover rate	26%	50%	30%	35%	36%	25%	32%	19%	10%	19%	15%	20%	14%
	Flexible working hours									65%	73%	43%	75%	65%
	Fringe benefits											43%	75%	
Incident rate	22%	34%	30%	58%	50%	46%	23%	26%						
Supply chain	Social supply chain management	58%					55%		48%	62%			49%	
	Environmental supply chain													
	Human rights contractor			70%	87%		75%							
Community	Product access at a low price													
	In-kind donations													
	Customer privacy protection								65%	73%		74%	65%	
	Privacy controversies											10%		
	Product recall													
	Penalties	26%	36%	19%	50%	50%	21%	25%	36%	13%	27%	11%	18%	19%
	Crisis management		87%	70%	87%	86%								
Product quality							82%		65%	73%	43%	75%	65%	
Ethics	Business ethics										30%	59%	49%	
	Bribery training	74%	87%	70%	87%	86%	75%	82%	94%	65%	73%		65%	
	Anti-bribery policy													
	Whistleblower protection	57%							57%			59%		
Environment	Renewable energy use										43%			
	Toxic chemicals reduction	74%	87%	70%	87%	86%	75%	82%	94%					
	Waste	27%	59%	31%	39%	64%	14%	41%	38%	21%			14%	
	Energy use					64%						28%		
	Water use	35%	64%	37%	56%	57%	20%	41%	51%		41%	24%		
	Emissions	39%	56%	33%	53%	57%	34%	36%	45%					
	Product impact minimization		87%					82%		65%	73%			65%

\* percentages in each box indicate disclosure levels by sector

Source: Thomson Reuters, Bloomberg, Goldman Sachs Global Investment Research

**Exhibit 15: The 10 key stakeholder metrics applied to each sector in our framework (continued)**

Indicator	Financials		Healthcare		Industrials				Information Technology				Telecom	Utilities	
	Banks	Insurance	MedTech	Pharma	A&D	Airlines	Autos	Machinery	IT Services	Semis	Software & Internet	Tech Hardware	Telecom	Utilities	
Employee	Training hours	40%	21%						23%	23%					
	Women in management	34%	34%			22%			21%		11%				
	Women in workforce								39%		15%				
	Turnover rate	38%	26%	11%	14%	23%	22%	15%	11%					40%	
	Flexible working hours	82%	89%	75%	43%				66%	28%	23%		16%		
	Fringe benefits	82%	89%				71%			68%	77%	50%	71%		
	Incident rate			19%	9%	25%	17%	12%	24%	68%	77%	50%		24%	24%
Supply chain	Social supply chain management				78%		58%	68%		48%		57%			
	Environmental supply chain						66%			77%		71%			
	Human rights contractor									77%					
Community	Product access at a low price			75%	43%										
	In-kind donations			7%	9%										
	Customer privacy protection		89%						68%		50%	71%	81%		
	Privacy controversies	12%							4%		5%	7%	14%		
	Product recall			74%	43%			66%							
	Penalties	30%	31%	26%	22%	50%	54%	28%	23%	16%	15%	13%	30%	39%	27%
	Crisis management	82%	89%	75%	43%	80%	71%	66%					81%	78%	
Product quality						71%		67%							
Ethics	Business ethics				78%										
	Bribery training	82%	89%	75%	43%	80%	71%	66%	67%	68%		50%	71%	81%	78%
	Anti-bribery policy					78%									
	Whistleblower protection	59%	73%			78%			68%						
Environment	Renewable energy use										50%		81%	78%	
	Toxic chemicals reduction			75%	43%					77%		71%			
	Waste							31%						35%	
	Energy use					35%	51%		29%				46%	38%	
	Water use									42%				45%	
	Emissions						46%				13%			49%	
	Product impact minimization							66%				71%	81%		

\* percentages in each box indicate disclosure levels by sector

Source: Thomson Reuters, Bloomberg, Goldman Sachs Global Investment Research

# Appendix 1: Governance & Risk Management scoring logic

## Exhibit 16: Scoring logic – Prior capital allocation

Indicator	Score, 0 - 100%			
Payout Ratio	3-year average payout ratio [(Dividends + Buyback)/DACF], FY-2, FY-1 and FY0 (for banks, substitute DACF with net income)			
Return on Capital	Average CROCI of FY-2, FY-1 and FY0; for financials, ROE of FY-2, FY-1 and FY0			
Indicator	Score 100%	Score 75%	Score 50%	Score 0%
Leverage	Net Debt to EBITDA ratio between 25th and 75th percentile of GICS Level 2 sector (for banks, Tier 1 capital ratio is used; for insurance, leverage ratio)		Net Debt to EBITDA ratio between 10th and 25th percentile of GICS Level 2 sector -OR- between 75th and 90th percentile (for banks, Tier 1 capital ratio is used; for insurance, leverage ratio)	Net Debt to EBITDA ratio below 10th percentile of GICS Level 2 sector -OR- above 90th percentile (for banks, Tier 1 capital ratio is used; for insurance, leverage ratio)

Source: Goldman Sachs Global Investment Research

## Exhibit 17: Scoring logic – Organizational checks & balances

Indicator	Score 100%	Score 75%	Score 50%	Score 25%	Score 0%
Independent Board directors	> 80% independent directors	> 60% independent directors	> 40% independent directors	> 20% independent directors	< 20% independent directors -OR- no disclosure
Independent leadership	Separate CEO/Chair -OR- Independent lead director				No separate CEO/CHAIR -AND- no independent lead director -OR- no disclosure
Independent auditor	Non-audit expense <5% of total auditor fees	Non-audit expense <10% of total auditor fees	Non-audit expense <20% of total auditor fees	Non-audit expense <35% of total auditor fees	Non-audit expense >=35% of total auditor fees -OR- no disclosure
Board tenure	Average board tenure between 25th and 75th percentile		Average board tenure between below 25th percentile -OR- between 75th and 90th percentile		Average board tenure above 90th percentile -OR- no disclosure
Board diversity	% of women on board is in the top quintile	% of women on board is in the 2nd quintile	% of women on board is in the 3rd quintile	% of women on board is in the 4th quintile	% of women on board is in the bottom quintile -OR- no disclosure

Source: Goldman Sachs Global Investment Research

## Exhibit 18: Scoring logic – Shareholder rights & control

Indicator	Score 100%	Score 75%	Score 50%	Score 25%	Score 0%
Voting rights	All voting rights are equal				Unequal voting rights exist -OR- no disclosure
Board elections	Annual board elections				Classified -OR- staggered board -OR- no disclosure
Anti-takeover provisions	No poison pill				Poison pill exists -OR- no disclosure
Block holdings	Largest block shareholder owns <10% of total shares	Largest block shareholder owns <25% of total shares	Largest block shareholder owns <35% of total shares	Largest block shareholder owns <50% of total shares	Largest block shareholder owns >=50% of total shares -OR- no disclosure

Source: Goldman Sachs Global Investment Research



**Exhibit 19: Scoring logic – Stakeholder management**

Indicator	Score 100%	Score 75%	Score 50%	Score 25%	Score 0%
Training and development policy	Company has a training and development policy				Company does not have training or development policy -OR- no disclosure
Training hours	Average training hours per year per employee in top quintile	Average training hours per year per employee in 2nd quintile	Average training hours per year per employee in 3rd quintile	Average training hours per year per employee in 4th quintile	Average training hours per year per employee in bottom quintile -OR- no disclosure
Diversity policy	Company has a diversity and equal opportunity policy				Company does not have a diversity and equal opportunity policy -OR- no disclosure
Work/life balance	Company has a work/life balance policy				Company does not have a work/life balance policy -OR- no disclosure
Women in management	Company has a percentage of women in management that is in the top quintile	Company has a percentage of women in management that is in the 2nd quintile	Company has a percentage of women in management that is in the 3rd quintile	Company has a percentage of women in management that is in the 4th quintile	Company has a percentage of women in management that is in the bottom quintile -OR- no disclosure
Women in workforce	Company has a percentage of women in the workforce that is in the top quintile	Company has a percentage of women in the workforce that is in the 2nd quintile	Company has a percentage of women in the workforce that is in the 3rd quintile	Company has a percentage of women in the workforce that is in the 4th quintile	Company has a percentage of women in the workforce that is in the bottom quintile -OR- no disclosure
Turnover rate	Turnover rate is in the bottom quintile	Turnover rate is in 4th quintile	Turnover rate is in 3rd quintile	Turnover rate is in the 2nd quintile	Turnover rate is in the top quintile -OR- no disclosure
Flexible working hours	Company claims to provide flexible working hours				Company does not provide flexible working hours -OR- no disclosure
Fringe benefits	Company provides employees with a pension fund, healthcare or other insurances				Company does not provide employees with fringe benefits -OR- no disclosure
Health and safety policy	Company has policy to improve health and safety within the company and in its supply chain				Company does not have policy to improve health and safety -OR- no disclosure
Incident rate	Total incident rate per million hours worked is in the bottom quintile	Total incident rate per million hours worked is in the 4th quintile	Total incident rate per million hours worked is in the 3rd quintile	Total incident rate per million hours worked is in the 2nd quintile	Total incident rate per million hours worked is in the top quintile
Supply chain management	Company has implemented initiatives to reduce social risks of supply chain				Company has not implemented initiatives to reduce social risks of supply chain -OR- no disclosure
Environmental supply chain	Company uses environmental criteria in the selection process of its suppliers or sourcing partners				Company does not use environmental criteria in the selection process of its suppliers or sourcing partners -OR- no disclosure
Child labor	Company has policy against child labor				Company does not have policy against child labor
Human rights	Company uses human rights criteria in the selection or monitoring process of its suppliers or sourcing partners				Company does not use human rights criteria in the selection or monitoring process of its suppliers or sourcing partners -OR- no disclosure
Human rights contractor	Company is ready to end a partnership with a sourcing partner if human rights criteria are not met				Company does not end a partnership with a sourcing partner if human rights criteria are not met -OR- no disclosure
Product access at a low price	Company distributes low-priced products or services specifically designed for lower income categories				Company does not distribute low-priced products or services specifically designed for lower income categories -OR- no disclosure
In-kind donations	Total in-kind donations is in the top quintile	Total in-kind donations is in the 2nd quintile	Total in-kind donations is in the 3rd quintile	Total in-kind donations is in the 4th quintile	Total in-kind donations is in the bottom quintile -OR- no disclosure
Donations	Total donations in the top quintile	Total donations in the 2nd quintile	Total donations in the 3rd quintile	Total donations in the 4th quintile	Total donations in the bottom quintile -OR- no disclosure
Privacy controvercies	Company has a process in place to protect customer privacy				Company does not have a process in place to protect customer privacy -OR- no disclosure

Source: Goldman Sachs Global Investment Research

**Exhibit 20: Scoring logic – Stakeholder management (continued)**

Indicator	Score 100%	Score 75%	Score 50%	Score 25%	Score 0%
Privacy controversies	Company has had less privacy controversies than bottom 20th percentile -OR- no disclosure	Company has had less privacy controversies than bottom 40th percentile	Company has had less privacy controversies than bottom 60th percentile	Company has had less privacy controversies than bottom 80th percentile	Company has had more privacy controversies than top 80th percentile
Product recall	Company has not had a product recall in the last five fiscal years				Company has had a product recall in the last five fiscal years -OR- no disclosure
Penalties	Total fines from court cases, settlements, bribery, corruption, price fixing, anticompetitive behavior, tax fraud, money laundering in previous five years is in bottom quintile -OR- no disclosure	Total fines from court cases, settlements, bribery, corruption, price fixing, anticompetitive behavior, tax fraud, money laundering in previous five years is in 4th quintile	Total fines from court cases, settlements, bribery, corruption, price fixing, anticompetitive behavior, tax fraud, money laundering in previous five years is in 3rd quintile	Total fines from court cases, settlements, bribery, corruption, price fixing, anticompetitive behavior, tax fraud, money laundering in previous five years is in 2nd quintile	Total fines from court cases, settlements, bribery, corruption, price fixing, anticompetitive behavior, tax fraud, money laundering in previous five years is in top quintile
Crisis management	Company has crisis management systems in place				Company does not have crisis management systems -OR- no disclosure
Customer satisfaction	Customer satisfaction scores as a percent of max are in top quintile	Customer satisfaction scores as a percent of max are in the 2nd quintile	Customer satisfaction scores as a percent of max are in the 3rd quintile	Customer satisfaction scores as a percent of max are in the 4th quintile	Customer satisfaction scores as a percent of max are in bottom quintile -OR- no disclosure
Product Quality	Company has a policy to protect customer health & safety - AND- Company has a product and services quality policy		Company has a policy to protect customer health & safety - OR- Company has a product and services quality policy		Company has a policy to protect customer health & safety - AND- Company has a product and services quality policy - OR- no disclosure
Business ethics	Company has a business ethics policy				Company does not have a business ethics policy -OR- no disclosure
Bribery training	Company provides bribery training to employees				Company does not provide bribery training to employees - OR- no disclosure
Anti-bribery policy	Company has an anti-bribery policy				Company does not have an anti-bribery policy
Whistleblower protection	Company has a policy to protect whistleblowers				Company does not have a policy to protect whistleblowers - OR- no disclosure
Energy efficiency policy	Company has a policy to improve energy efficiency				Company does not have a policy to improve energy efficiency -OR- no disclosure
Renewable energy use	Company uses renewable energy				Company does not use renewable energy -OR- no disclosure
Waste reduction policy	Company has initiatives to recycle, reduce, reuse, substitute, treat or phase out total waste				Company does not have initiatives to recycle, reduce, reuse, substitute, treat or phase out total waste -OR- no disclosure
Toxic chemicals reduction	Company has initiatives to reduce, reuse, substitute or phase out toxic chemicals or substances				Company does not have initiatives to reduce, reuse, substitute or phase out toxic chemicals or substances -OR- no disclosure
Waste	Total amount of waste produced (tonnes) normalized to GCI is in the bottom quintile	Total amount of waste produced (tonnes) normalized to GCI is in the 4th quintile	Total amount of waste produced (tonnes) normalized to GCI is in the 3rd quintile	Total amount of waste produced (tonnes) normalized to GCI is in the 2nd quintile	Total amount of waste produced (tonnes) normalized to GCI is in the top quintile -OR- no disclosure
Energy use	Total amount of energy used (Gigajoules) normalized to GCI is in the bottom quintile	Total amount of energy used (Gigajoules) normalized to GCI is in the 4th quintile	Total amount of energy used (Gigajoules) normalized to GCI is in the 3rd quintile	Total amount of energy used (Gigajoules) normalized to GCI is in the 2nd quintile	Total amount of energy used (Gigajoules) normalized to GCI is in the top quintile -OR- no disclosure
Water use	Total water withdrawal (cubic meters) normalized to GCI is in the bottom quintile	Total water withdrawal (cubic meters) normalized to GCI is in the 4th quintile	Total water withdrawal (cubic meters) normalized to GCI is in the 3rd quintile	Total water withdrawal (cubic meters) normalized to GCI is in the 2nd quintile	Total water withdrawal (cubic meters) normalized to GCI is in the top quintile -OR- no disclosure
Emissions	Total CO2 and CO2 equivalents released (tonnes) normalized to GCI is in the bottom quintile	Total CO2 and CO2 equivalents released (tonnes) normalized to GCI is in the 4th quintile	Total CO2 and CO2 equivalents released (tonnes) normalized to GCI is in the 3rd quintile	Total CO2 and CO2 equivalents released (tonnes) normalized to GCI is in the 2nd quintile	Total CO2 and CO2 equivalents released (tonnes) normalized to GCI is in the top quintile -OR- no disclosure
Product impact minimization	Company has a recycling program to reduce the potential risks of products entering the environment -OR- Company reports about product features that promote responsible and environmentally preferable use				Company does not have a recycling program to reduce the potential risks of products entering the environment -OR- Company does not have product features that promote responsible and environmentally preferable use -OR- no disclosure

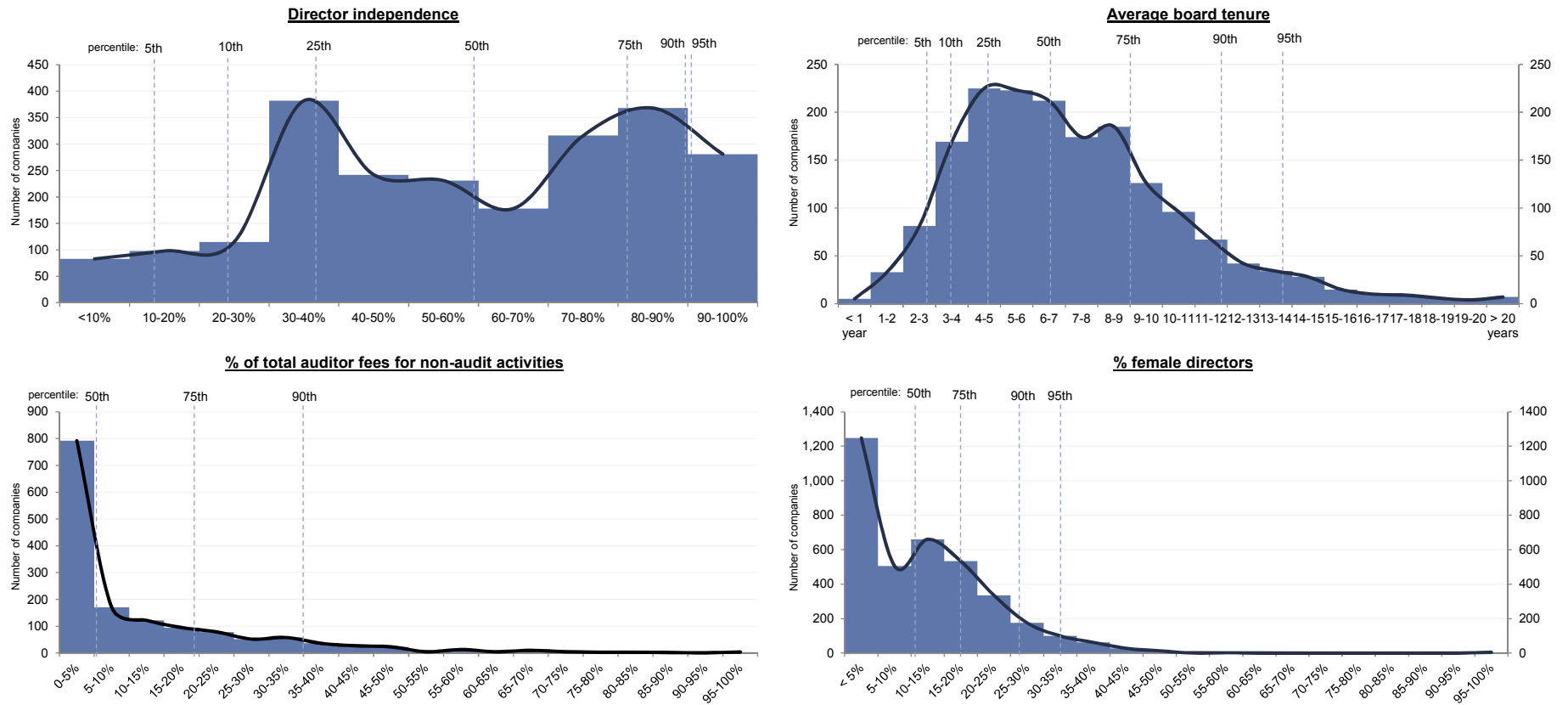
Note: GCI is gross capital invested (gross fixed assets + gross intangibles)

Source: Goldman Sachs Global Investment Research

# Appendix 2: Distribution of selected metrics

## Organizational checks & balances metrics distribution

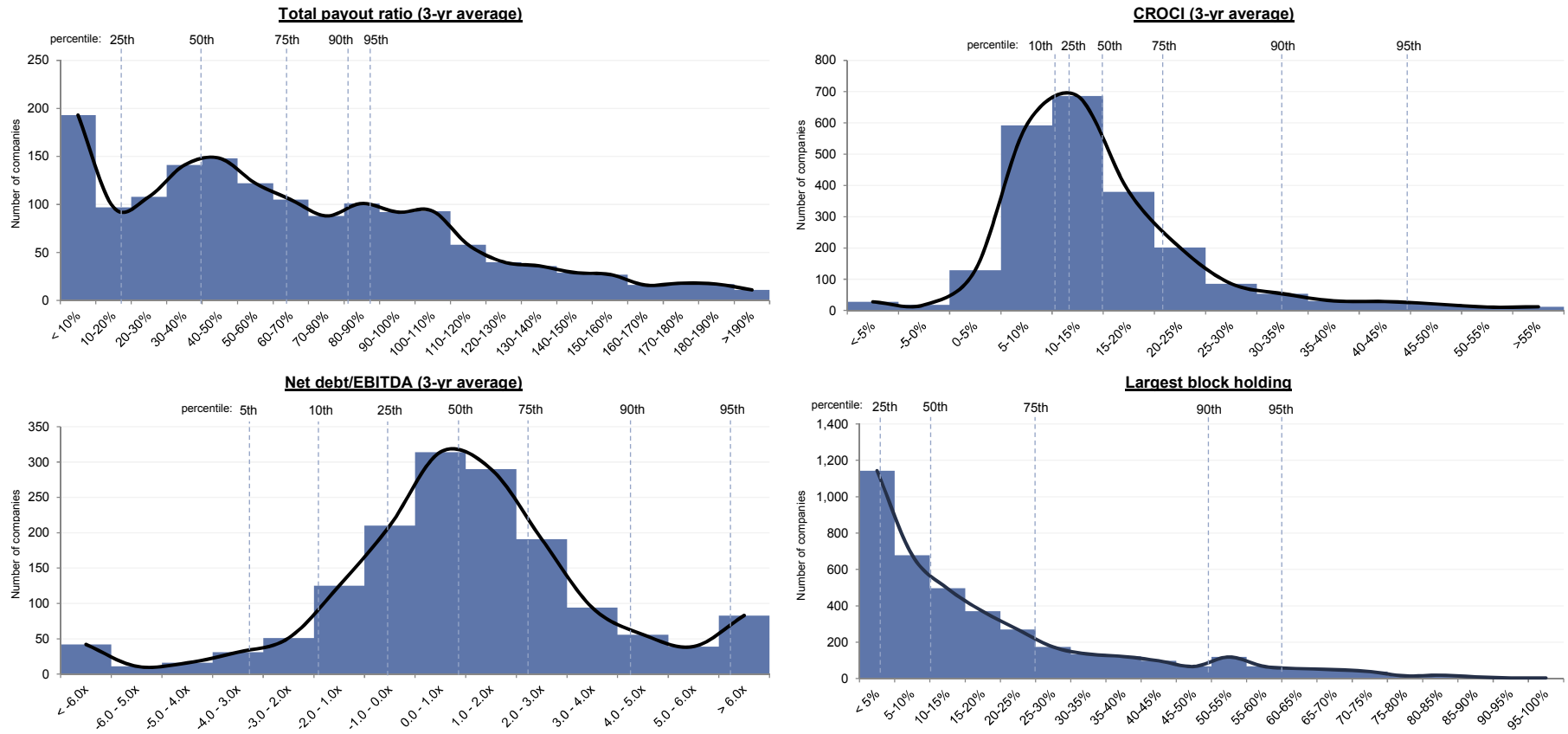
**Exhibit 21: Scoring distribution among select organizational checks & balances measures for our coverage universe**



Source: FactSet, Bloomberg, Thomson Reuters, Goldman Sachs Global Investment Research

## Prior capital allocation and shareholder rights metrics distribution

**Exhibit 22: Scoring distribution among select prior capital allocation and shareholder rights measures for our coverage universe**



Source: FactSet, Bloomberg, Thomson Reuters, Goldman Sachs Global Investment Research

# Disclosure Appendix

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