

# INCOME INEQUALITY AND THE INTRACORPORATE PAY GAP

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## Key Findings

- We observed a relationship between the intracorporate pay gap (the gap between highest paid executives and average worker salary) and country income inequality during the period between 2009 and 2014.
- Comparable to economic research cited in this paper suggesting country income inequality tended to slow GDP growth across countries, we observed that between 2009 and 2014 average profit margins were higher for companies with lower intracorporate pay gaps across all sectors except Materials.
- We estimate that the Consumer Staples sector had the highest intracorporate pay gap globally; in the US the highest gap was seen in the Consumer Discretionary sector. Both sectors are likely to be highly impacted by movements advocating for adjustments to minimum wages in certain countries.
- Labor productivity, measured by sales per employee, was lower for companies with higher intracorporate pay gaps on average during the study period, a finding we noted in nine of ten GICS sectors.

## Executive Summary

Based on the GINI coefficient, a commonly used measure of income distribution, income inequality has increased in 63% of countries in the world from 1980 to the current decade<sup>1</sup>, and has continued to expand since the Great Recession (post-2008). The Organization for Economic Cooperation and Development (OECD) estimates that growing inequality has cumulatively shaved almost nine percentage points from growth of gross domestic product in the U.K., Finland, and Norway, and between six and seven percent in the U.S., Italy, and Sweden between 1990 and 2010.<sup>2</sup> However, the role that corporates play with regards to country-level income inequality is not as well understood. This paper attempts to begin bridging that gap by examining intracorporate pay gaps – defined as the ratio in pay between the highest paid executives and average employees.

Our findings suggest that intracorporate pay gaps paralleled country-level income inequality between 2009 and 2014. A ‘tragedy of the commons’<sup>3</sup> appeared to be in effect – or at a minimum, a *tragedy of horizons* – in which company management respond to (and may be paid to achieve) short-term performance, which encourages tactics like maintaining dividends, share buybacks, and quarterly earnings. This short-termism tends to treat labor as a cost to be minimized rather than an asset to be utilized over long time horizons.

We found a possible, though tenuous, relationship between intracorporate pay gaps and company profitability that reflects academic findings that income inequality hinders GDP growth. We also note possible “pendulum” effects of intracorporate pay gaps in which investor, social, or political pressure grows to either slow CEO pay growth or increase wages, especially for minimum wage workers. Lastly, we found that labor output (measured as sales per employee) may suffer for companies operating in highly unequal markets.

<sup>1</sup> GINI Coefficient was sourced from the World Bank and the US Central Intelligence Agency World Factbook

<sup>2</sup> *Focus on Inequality and Growth*. OECD. December 2014

<sup>3</sup> Tragedy of the Commons: <http://www.econlib.org/library/Enc/TragedyoftheCommons.html>

## Evolving Research on the Economic Impact of Income Inequality

Some economic research has examined the concern that over the long term, income inequality may perpetuate, exacerbate, or precipitate other, possibly significant, economic and social events. For instance, the International Monetary Fund's paper *Inequality and Unsustainable Growth: Two Sides of the Same Coin?* stated that, while some inequality is integral to market functions and incentives, too much may be destructive, and periods of long economic growth "are robustly associated with more equality in the income distribution."<sup>4</sup> The OECD similarly suggested that "income inequality has a negative and statistically significant impact on medium-term growth." By their estimate, a rise of 3 GINI points represented a cumulative loss in GDP over a 25 year period of 8.5 per cent.<sup>5</sup> Even Standard & Poor's more recent research suggested "extreme income inequality drag[s] on long-run economic growth."<sup>6</sup>

While research has warned of constraints on economic growth due to income inequality, other economists warn of its contribution to financial instability, as stagnant wages may precipitate policies and practices encouraging over-crediting.<sup>7,8</sup> David A. Moss, an economic and policy historian at the Harvard Business School, pointed out in 2010 that high income inequality precipitated the major economic declines in the US in both 1928 and 2007.<sup>9</sup>

The impacts, or possibly the causes, of income inequality on populations (and by extension, labor forces) can be wide. Nobel Laureate economist Joseph Stiglitz stated, "Lack of opportunity means that [an economy's] most valuable asset – its people – is not being fully used. Many at the bottom, or even in the middle, are not living up to their potential."<sup>10</sup> The effect on labor is exacerbated by the disparity in access to and quality of healthcare and education.

FIGURE 1 Average Lifespan by Country Segmented by Income Inequality, 2014



Source: MSCI ESG Research, World Bank, CIA World Fact Book

<sup>4</sup> Berg, Andrew; Ostry, Jonathan. IMF. *Inequality and Unsustainable Growth: Two Sides of the Same Coin?*. April 2011.

<sup>5</sup> OECD. *Focus on Inequality and Growth*. <http://www.oecd.org/social/Focus-Inequality-and-Growth-2014.pdf>. December 2014

<sup>6</sup> Standard and Poor's. *Economic Research: How Increasing Income Inequality is Dampening US Economic Growth, And Possible Ways to Change the Tide*. Aug 2014.

<sup>7</sup> Rajan, Raghuram. *How Inequality Fueled the Crisis*. <https://www.project-syndicate.org/commentary/how-inequality-fueled-the-crisis>. July 2010.

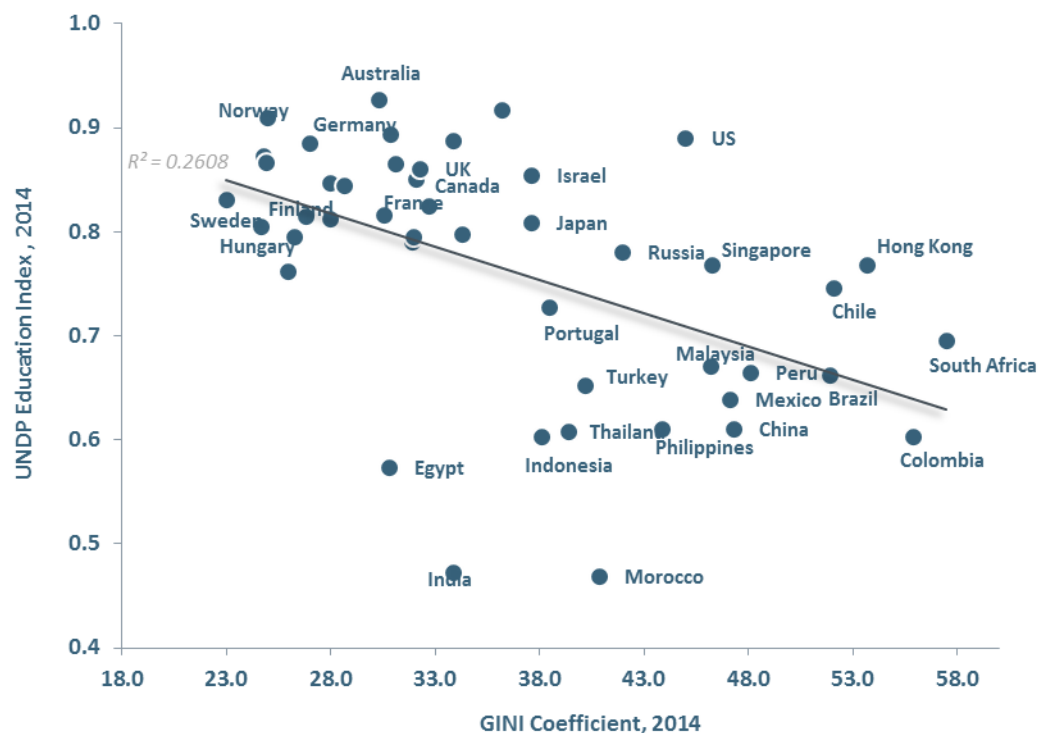
<sup>8</sup> Sturn, Simon. Treeck, Till van. *Income inequality as a cause of the Great Recessions? A survey of current debates*. International Labour Office, Conditions of Work and Employment Branch. - Geneva: ILO, 2012

<sup>9</sup> Story, Louise. *Income Inequality and Financial Crisis*. <http://www.nytimes.com/2010/08/22/weekinreview/22story.html>

<sup>10</sup> Stiglitz, Joseph. *The Price of Inequality*. <http://www.theguardian.com/business/2012/jun/05/price-of-inequality-united-states>

Uneven access to social services - such as education gaps in South Africa, Colombia, and Brazil –may limit the depth of labor pool skills and versatility, encumber opportunities for upward mobility, and exacerbate (or create) country-wide income inequality that drags economic outcomes (see figure 2).

FIGURE 2 **High Inequality May be Reinforced by Poor Education**



Source: MSCI ESG Research, World Bank, CIA Factbook, UN Development Programme

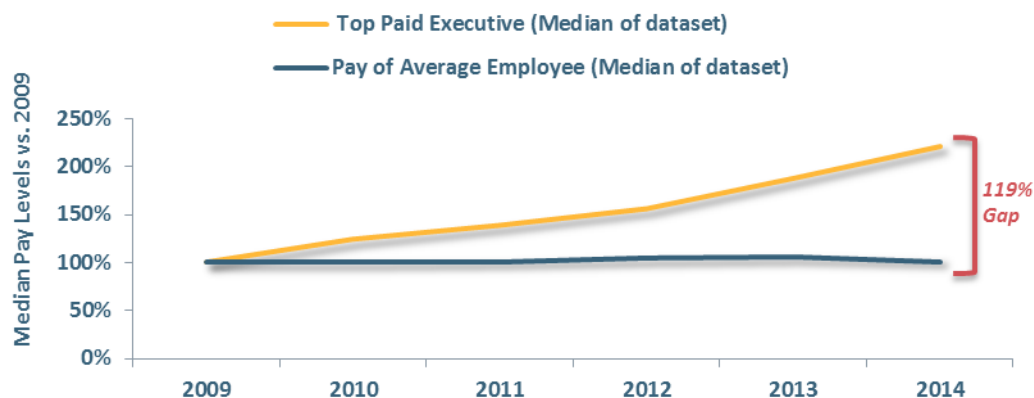
Ultimately, while some research evidence suggests that there are long-term economic and social costs to income inequality, the causes of that inequality have been debated – in particular, the link between the corporate role in country-level income inequality remains largely unexplored. However, we present some early evidence that suggests that the intracorporate pay gaps between executive pay and average worker pay may mirror country-level income inequality, with investors potentially bearing the costs of persistent intracorporate and country income inequality over long time horizons.

## Intracorporate Pay Gaps and Income Inequality

The primary limitation to understanding the link between country-level income inequality and corporate behavior – particularly corporate approaches to labor and compensation – is a data limitation. We collected data on the ratio between top executive total compensation and that of the average worker over a period between 2009 and 2014 for 591 companies included in the MSCI ACWI Investable Market Index (IMI) with a total market capitalization of USD 6.9 trillion as of December 14, 2015 to investigate possible links between macroeconomic income inequality and intracorporate pay gaps (for details on the company sample, please see Appendix A).

Using our sample, we note that the highest executive total summary compensation<sup>11</sup> at a company grew on average by a 20% compound annual growth rate (CAGR) from 2009 to 2014; in contrast, compensation for the average employee grew at only 2% CAGR during this time period. A number of factors can be linked to the rise, including changing regulations on compensation<sup>12</sup>, and the fact that of a sample set of more than 3,600 constituent companies of the MSCI ACWI IMI Index, only 36% offered employee share ownership plans or variable performance pay to the majority of employees as of January 2016—However, what is clear is that the reward received by executives during this time period far outpaced that received by most of the workforce (figure 3).

**FIGURE 3 Growth in Compensation of the Top Paid Executive to that of the Average Employee 2009 -2014**



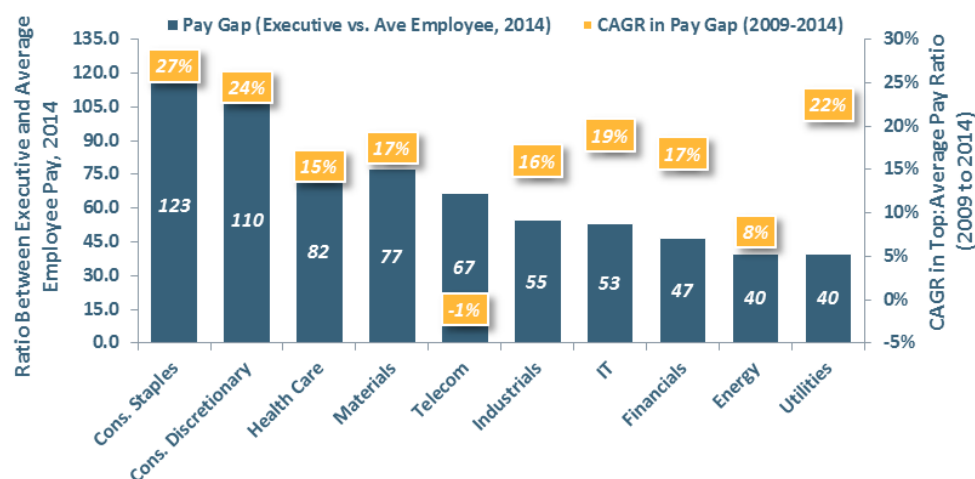
Source: MSCI ESG Research, Worldscope, Company Disclosures; n=591 companies.

This difference in pay was observed across most industries, but the pace and size of the gap varied. The largest and fastest growing pay gap during this time period occurred within the Consumer Staples and Consumer Discretionary Sectors (see figure 4).

<sup>11</sup> Total summary compensation was used for executive compensation given data availability, results may differ using realizable, realized, or other measures of executive compensation.

<sup>12</sup> Options accounting in the US, for example

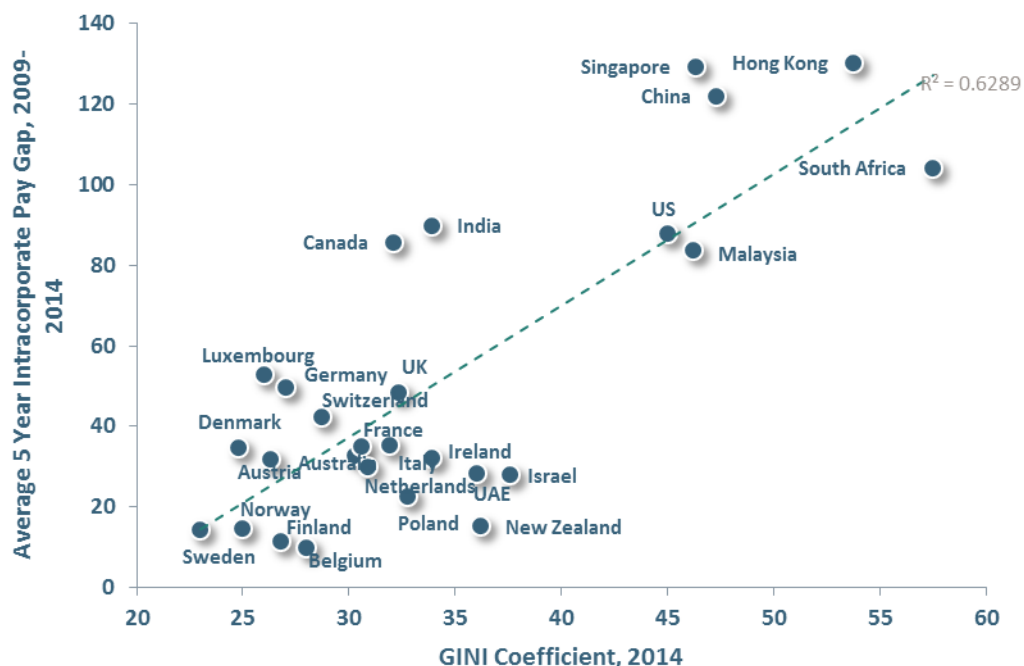
FIGURE 4 Pay Gap and Trend per GICS Sector – MSCI ACWI IMI



Source: MSCI ESG Research, Worldscope, Company Disclosures; n= 1240 or 14.4% of MSCI ACWI IMI

Using this data set, we also found a correlation between intracorporate pay gaps and country-level income inequality, as measured by GINI, of the countries where the companies are domiciled.

FIGURE 5 Intracorporate Pay Gap vs GINI, 2014



Source: MSCI ESG Research, Worldscope, Company Disclosures, World Bank, CIA Factbook; ACWI IMI constituents with disclosure (n = 1240 companies) as of October 2015

Overall, this data implies there is some potential (and intuitive) link between intracorporate pay gaps and country-level income inequality. While we hesitate to definitively link country inequality to the intracorporate pay gap, there may be similar costs or effects associated with both. Specifically for corporations, we identified three core effects of inequality based on our currently available data:

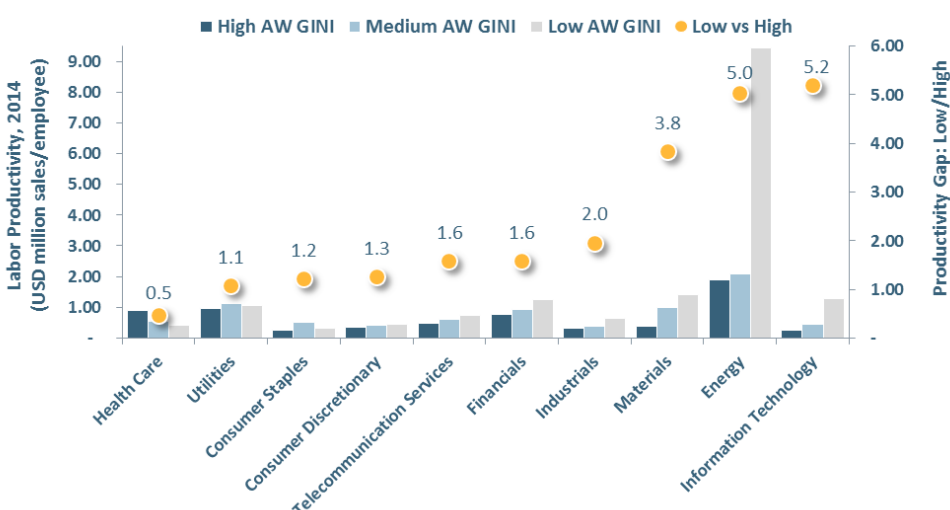
- **Productivity costs** – specifically, is lower sales per employee observed by companies operating in countries with higher income inequality?
- **Profitability costs** – does limiting workforce costs (or having executive pay outpace worker pay) strengthen operating margins in the long run?
- **“Pendulum” costs** – does a persistent and widening intracorporate wage gap precipitate sudden market corrections to labor costs as social and political factors force wage adjustments?

## Country Income Inequality and Corporate Labor Productivity

We found a tenuous relationship between corporate labor productivity and operational exposure to countries with high income inequality. Using revenue per employee as a measure of labor productivity, we found companies with the highest exposure to income inequality – based on an asset-weighted (AW) GINI measure – had much lower worker productivity than companies operating in more equal societies. The situation was consistent among nine out of ten sectors (n= 1,699; MSCI ACWI constituents, see figure 6).

Parsing the reasons for this are difficult – but it may relate in part on the salary expectations of the local labor pool and the resulting choices companies make between their equipment and human capital balance. In any case, the effect was persistent across nine of ten sectors.

FIGURE 6 Sales per Employee by Sector and GINI, 2014



Source: MSCI ESG Research, Worldscope, Company Disclosures, World Bank, CIA Factbook; All constituents were MSCI ACWI constituents, n= 1,699. High GINI countries included Brazil, China, Chile, Singapore, South Africa, and the US. Low GINI countries included Australia, Canada, Poland, South Korea, and Sweden.

## Profitability and the Intracorporate Pay Gap

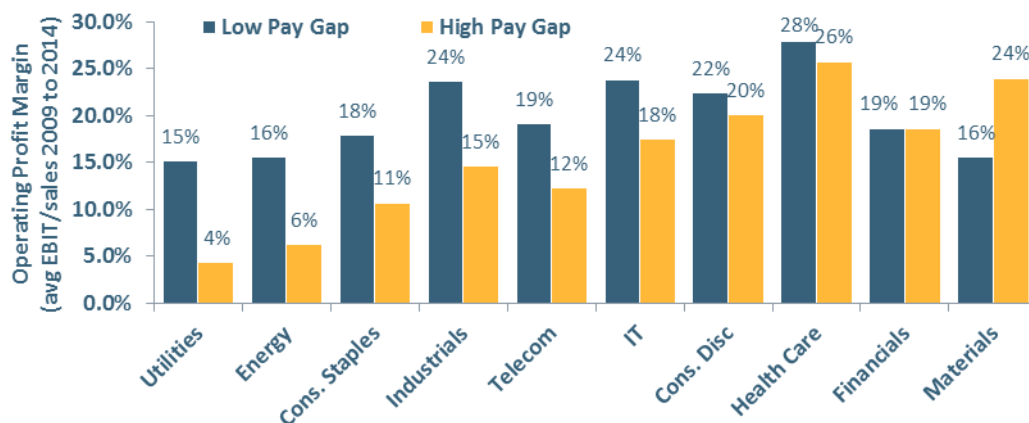
Our research found evidence that companies with higher intracorporate pay gaps experienced lower profitability over the five-year period from 2009 to 2014 compared to peers with smaller pay gaps.

The labor force often bears the brunt of company initiatives to maintain or improve profitability and returns, particularly in turbulent markets, through cuts in benefits, raises, or jobs. At the same time, executives are often rewarded for short-term performance, both through market returns on equity and equity options and increases in performance-linked pay. Coupled with other factors, including changing compensation regulations<sup>13</sup> and potential structural issues (nearly 54% of MSCI ACWI companies lacked fully independent compensation committee oversight as of January 2016), executive incentives may not necessarily reflect the demands of a long-term investor. Our research suggests this “tragedy of horizons” plays out as a long-term profitability effect, and may have further implications for the sustainability of dividends and other returns over time.

Specifically, using our sample set of 591 companies<sup>14</sup> that disclosed compensation figures for both employees and executives for each year of our study period (2009 to 2014), we did not identify outperformance (as measured by operating margins) for companies whose top executive pay far exceeded that of the common worker. We grouped companies based on the size of their executive to employee pay gap into two buckets – “high” pay gap companies (where gaps were larger than sector average) and “low” pay gap companies (where gaps were smaller than sector average). Operating profit margins at companies with low gaps in pay outperformed those of companies with high gaps in pay between 2009 and 2014 on average across all GICS sectors except Materials. The outperformance was statistically significant (at a two-tailed p-value of 0.04), for Consumer Staples, the sector with the largest pay gap.

The implication here is that, while executives may employ cost-savings strategies that limit employee pay raises or workforce growth, the strategy did not appear to improve profitability over the time-span studied and may have exacerbated existing intracorporate pay gaps instead.

FIGURE 7 Operating Profit Margin by Sector and Intracorporate Pay Gap, 2009-2014



Source: MSCI ESG Research, Worldscope, Company Disclosures

<sup>13</sup> Such as accounting shifts in treating options

<sup>14</sup> See Appendix A



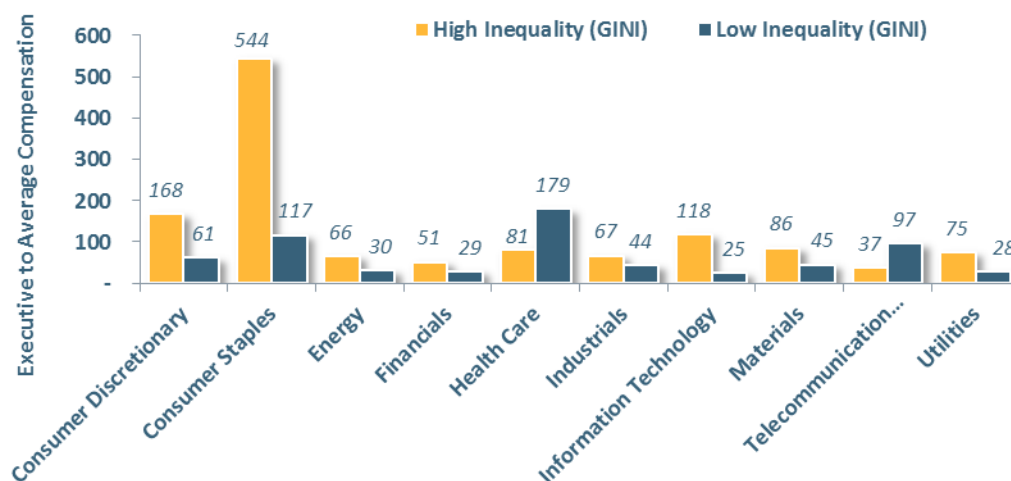
## Pendulum Effect of Intracorporate Pay Gaps

The “tragedy” of the tragedy of the commons (or in this case, horizons) theory assumes that some cross-section of companies would bear the negative impact of aggregate income inequality in potentially sudden, unanticipated ways. Over the last two years, we have seen socio-political pressure to reduce income inequality such as through calls for sharp wage adjustments in some markets. From campaigns for a so-called living wage in the U.K. and Canada, to worker protests across the U.S., or striking mine workers in South Africa, the targeted level of wage increases in some cases represented a multiple of current wage rates.

As of November 2015, the London-based Living Wage Foundation had signed up more than 1,000 UK companies that pledge to pay a living wage of GBP 8.80<sup>15</sup> in London, a 35% premium over the national minimum. U.S. worker protests and proposed legislation are targeting \$15 per hour, more than double the federal minimum wage of \$7.25.<sup>16</sup> Faced with these pressures, both **Wal-Mart** and **McDonald’s** have already announced significant pay increases.

In our data, sectors with the largest pay gaps – Consumer Discretionary, for instance – were particularly squeezed by wage pressure and may be targeted by both political and investor pressure on wage structures. We also note that this pressure on wages is likely to expand in countries with the highest income inequality, especially as these intracorporate pay gaps are often higher in economically polarized countries, the only exception in our study being that of the Health Care sector (see figure 8).

FIGURE 8 Intracorporate Pay Gaps by Sector in High and Low GINI Countries, 2014



Source: MSCI ESG Research, Worldscope, WorldBank, CIA FactBook, Company Disclosures, n= 1240 or 14.4% of MSCI ACWI IMI

<sup>15</sup> The living wage set by the foundation is GBP 8.80 for London and GBP 7.65 elsewhere in the UK

<sup>16</sup> In the U.S., the state-level minimum wage is often higher than the federal minimum wage. 14 states recently enacted increases to their state minimum wage, effective January 1, 2016. Currently, the states with the highest minimum wage are District of Columbia (\$10.50), California and Massachusetts (both \$10.00).

## Institutional Investor Implications

Universal asset owners with passive exposure to systemic market risks may have the most to lose when companies prioritize short-term profits over longer-term investments. While the links between corporate pay practices and income inequality broadly are still being defined, regulators are beginning to take notice. The new US SEC rule mandating disclosure of CEO to median employee pay for US companies<sup>17</sup> - with disclosure starting January 2017 –may shine a greater spotlight on the gap in pay across US corporates. According to our research, only 15% (1,327 companies) of MSCI ACWI IMI constituents disclosed executive and employee compensation pay data at least one year between 2009 and 2014 and only about 7% (591 companies) disclosed employee pay data each year over the time period. The new disclosures in 2017 will likely showcase the companies with high gaps between executive pay and the average worker pay.

Currently, investor focus on pay gaps has been largely indirect through say-on-pay votes or direct company engagement regarding executive pay practices. We noted in our 2016 ESG Trends to Watch paper the increased use of “beta engagement” – systemically changing market practice through collective asset owner proxy voting campaigns – focused on proxy access which would allow asset owners to nominate their own board members, an effort that may indirectly change compensation practices. However, engagement as the primary tactic to influence intracorporate pay gaps, even if indirectly, may cede to investment options as disclosure and data becomes more readily available.

Using 2014 data only, a company sample covering more than 1,100 MSCI ACWI IMI constituents, we explored the different company profiles broken up by intracorporate pay gaps to understand, at least at a rudimentary level, some basic performance differences for companies with different intracorporate pay gap profiles.

Figure 9 illustrates some of our findings. We used data from the MSCI BarraOne platform and separated companies by intracorporate pay gap quartiles, isolating top, middle, and bottom quartiles. Companies with larger gaps tend to be larger with higher return on equity, book value per share, and earnings (all as of March 31, 2016). However, when we considered dividend payouts from a current, one year, and five year perspective, companies with lower intracorporate pay gaps persistently outperformed on average (as of March 31, 2016).

<sup>17</sup> The SEC defines median employee salary and total CEO compensation in its release on August 5, 2015 (<https://www.sec.gov/news/pressrelease/2015-160.html>)

FIGURE 9 Market Indicators by Intracorporate Pay Gap Quartile, March 31 2016

	Top Intracorporate Pay Gap Quartile (>34.3)	Bottom Intracorporate Pay Gap Quartile (<34.3)
Sample Size (# cos)	523	489
Market Cap (USDbn)	\$14.6	\$6.0
ROE	21.3%	19.4%
Book Value per Share	18.53	17.70
EPS	2.37	2.18
P/E	29.20	12.40
Dividend Yield	2.7%	2.9%
Div Yield(5 yrs)	0.4%	0.6%
Div Yld(1 yr)	1.8%	2.1%
Growth in BV/Share	7.0%	8.2%
Growth in CF/Share	10.5%	12.5%

Intracorporate pay gap data as of YE 2014, performance data as of March 31, 2016 Source: MSCI ESG Research, Worldscope, Company Disclosures, MSCI BarraOne

The dividend performance did not appear to be the result of sector bias, either. When we reviewed current dividend yields by sector and intracorporate pay gap, even within sectors companies with lower than sector average intracorporate pay gaps largely paid larger dividends (see Figure 10). While these findings are not entirely conclusive, and we do not yet understand what may be driving the differences, the findings are persistent enough that investors may begin scrutinizing links between extreme intracorporate pay gaps and long-term performance indicators.

FIGURE 10 Dividend Yields as of March 31, 2016 by Sector and Intracorporate Pay Gap

GICS Sector	n=	2014 Average Intracorporate Pay Gap	Above 2014 Sector Average Intracorporate Pay Gap	Below 2014 Sector Average Intracorporate Pay Gap
Consumer Discretionary	138	134.6	2.13%	2.35%
Consumer Staples	62	123.2	2.87%	2.39%
Health Care	50	104.0	0.81%	1.73%
Materials	76	91.4	2.81%	2.98%
Telecommunication Services	30	68.3	4.05%	4.07%
Industrials	179	61.3	2.38%	3.02%
Information Technology	48	59.2	1.28%	1.94%
Financials	356	54.9	2.96%	3.10%
Utilities	33	38.5	3.16%	3.99%
Energy	39	32.1	3.68%	3.02%

Source: MSCI ESG Research, Worldscope, Company Disclosures, MSCI BarraOne

## Appendix A: Methodology and Sample Data

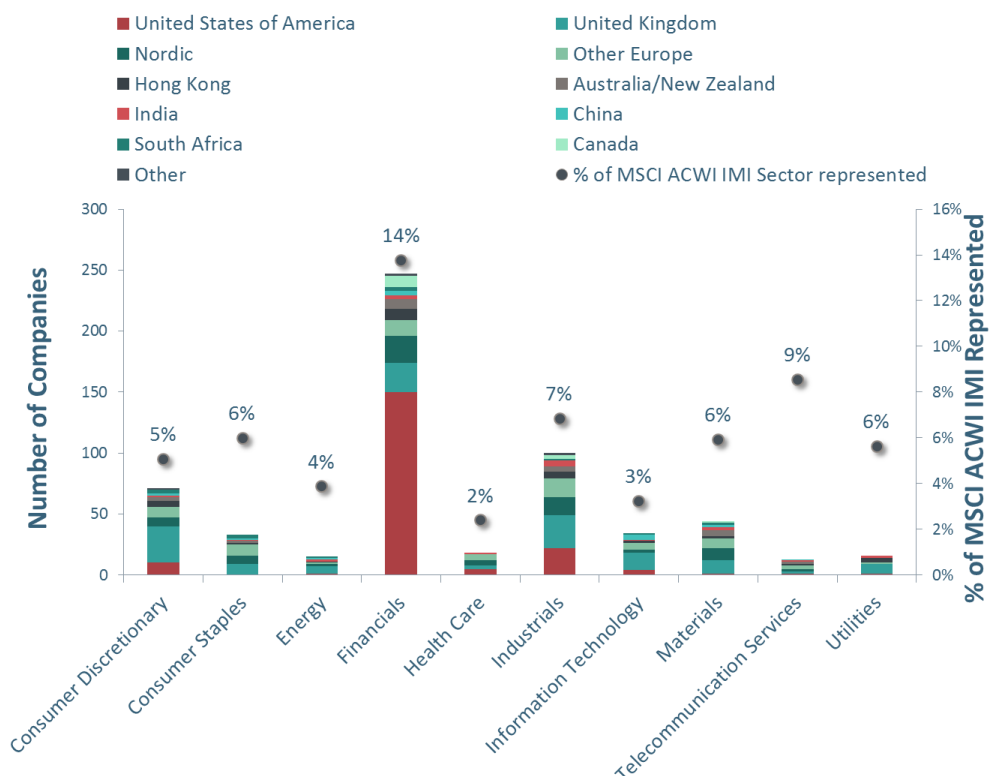
**Top Paid Executive:** The top pay figure was based on the database of executive compensation at MSCI ESG Research and is based on the highest Total Summary Pay per year for each company, which was not always the same person but was overwhelmingly the CEO. Total Summary Pay is collected through company disclosures in proxy filings and annual reports (the most recent data sourced from 2015).

**Wage data:** The average employee compensation figure was derived using a top level figure of *Salaries and Benefits* reported in a company's financial or corporate social responsibility reporting and obtained from either Worldscope or MSCI ESG Research. We then divided by the number of total employees in the corresponding year collected by either MSCI ESG Research or through a third-party provider.

**Wage Data Limitations:** Figures were rejected when data quality issues were suspected or where company disclosures did not meet normative methodology. As a result our data quality review rejected data from some regions, most significantly for companies listed in Japan and South Korea. However, the rest of the data was fairly well distributed that resulted in having reliable data of average worker and executive compensation for at least one year in the study for about 14% of MSCI ACWI IMI constituents.

**Final Sample:** This paper used a final sample of 591 companies globally for which we had a six year history of both average worker and executive compensation.

FIGURE 11 Consistent Data Set Details



Source: MSCI ESG Research

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