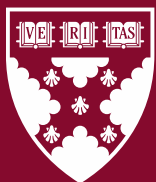


Working Paper 22-076

A Conceptualization of Sub-Living Wages: Liabilities, Leverage, and Risk

Drew Keller
Katie Panella
George Serafeim



**Harvard
Business
School**

A Conceptualization of Sub-Living Wages: Liabilities, Leverage, and Risk

Drew Keller
Harvard Business School

Katie Panella
Harvard Business School

George Serafeim
Harvard Business School

Working Paper 22-076

Copyright © 2022 by Drew Keller, Katie Panella, and George Serafeim.

Working papers are in draft form. This working paper is distributed for purposes of comment and discussion only. It may not be reproduced without permission of the copyright holder. Copies of working papers are available from the author.

Funding for this research was provided in part by Harvard Business School.

A Conceptualization of Sub-Living Wages: Liabilities, Leverage, and Risk

Drew Keller, Katie Panella, and George Serafeim*

Harvard Business School

Impact-Weighted Accounts Project Research Report

Abstract

Currently the accounting system records employee wages as an expense in the income statement. However, paying below living wages can expose an organization to reputational and operational risks. In this paper, we offer an alternative conceptualization of the issue of low wages and in particular wages that are below the local living wage. We propose a simple double entry bookkeeping approach to account for wages paid below a local living wage level through a firm's balance sheet, where wages below the living wage threshold create a leverage effect as the organization borrows from society. Firms paying below the living wage therefore exhibit higher leverage reflecting higher stakeholder risk. Investors, policymakers, customers, corporate managers, and other stakeholders can use this alternative conceptualization to assess an organization's exposure to human capital erosion.

* Drew Keller is a 2022 MBA graduate at Harvard Business School. Katie Panella is the Project Manager at the Impact-Weighted Accounts Project at Harvard Business School. George Serafeim is the Charles M. Williams Professor of Business Administration at Harvard Business School and the faculty Chair of the Impact-Weighted Accounts Project at Harvard Business School. We are grateful to the Division of Faculty Research and Development at Harvard Business School for financial assistance. We would like to thank Ethan Rouen and Rob Zochowski for many useful comments. Corresponding author: Katie Panella, kpanella@hbs.edu. For more information about Impact-Weighted Accounting visit www.hbs.edu/impact-weighted-accounts or email ImpactWeightedAccounts@hbs.edu.

Introduction

Currently the accounting system records employee wages as an expense in the income statement. A firm records a debit on employee expenses and a credit on cash reflecting the fact that a cash outlay has been made from an organization's bank account and has been transferred to employees. Within this system the lower the wages a firm pays, the higher its reported earnings will be for the year. Often, organizations that can control expenses provide an effective signal of superior management and governance. This further signals an ability to scale up the production and distribution of their products and services. In turn, higher earnings can translate to higher executive compensation, public recognition and market valuation, all powerful incentives that shape managerial behavior. Of course, the gravitating force towards increased earnings by reducing wages is constrained by regulations (i.e., minimum wage requirements) and market forces (i.e., paying enough to attract or retain employees and managerial perspective on how low wages could be detrimental over time to employee engagement and consumer sentiment).

In the past few years, there has been considerable interest in measuring and analyzing organizational impact on society and specifically on employees. Moreover, while control over expenses and costs can be a positive market signal, paying below living wages can expose an organization to reputational and operational risks. In this paper, we offer an alternative conceptualization of the issue of low wages and in particular wages that are below the local living wage. Investors, policymakers, customers, corporate managers, and other stakeholders interested in accounting for employment impact can use this alternative conceptualization as a way to assess an organization's exposure to human capital erosion.

Our approach proposes that wages below the local living wage create a leverage effect as the organization borrows from society. Therefore, organizations paying below the living wage exhibit higher leverage reflecting higher stakeholder risk.

The Challenge

The past forty years have seen impressive economic growth in the US. From 1979 to 2020, overall economic productivity increased by 62% (Economic Policy Institute, 2021), and the S&P 500 grew by 2,984%.¹ One would expect this growth in productivity to be coupled with a corresponding growth in average wages. However, during this time average earnings growth has substantially lagged productivity growth (Gould, 2020). More broadly, the labor share of national income has fallen in several industrialized nations over the last three decades (Karabarbounis & Neiman, 2013).

This divergence has led many workers to feel that they are being left behind. Slow wage growth is exacerbated by large income gains happening at the top of the income distribution. Since 1979, average earnings have only grown 23.9% for the bottom 90% of earners, compared to 157.8% among the top 1% (Gould, 2020). This wage stagnation has corresponded to a spike in the CEO-to-average-worker pay ratio, which increased from 31:1 in 1978 to 320:1 in 2019 (Mishel & Kandra, 2020).

Additionally, stagnating worker pay has failed to keep up with the cost of living, eroding many workers' quality of life. For example, since the late 1960s, an average monthly mortgage payment has increased 168% above inflation and average annual out-of-pocket healthcare expenses have increased 162% above inflation (McGill & Rust, 2021). This has caused many low-wage workers, 27 million according to one study, to struggle to afford essentials like housing and food (Kucik & Leonard, 2021).

The Issue of Living Wages

¹ Measured from July 2, 1979 to July 6, 2020.

These trends have begun to draw considerable attention to the issue of stagnant low wages and the concept of living wages as a way to address them. A living wage, which is also referred to colloquially as a “fair” or “decent” wage, is defined as the wage a worker earns that is “sufficient to afford a decent standard of living for the worker and her or his family” (Global Living Wage Coalition, 2022). This concept is captured as the right to “just and fair remuneration” in the Universal Declaration of Human Rights, ratified by the United Nations in 1948 (United Nations, 2022). A number of organizations and economists have worked to calculate living wages around the world, including the Fair Wage Network, the Global Living Wage Coalition, WageIndicator, and the MIT Living Wage Calculator.

Several stakeholders have increased pressure on businesses to pay their workers a living wage. On the regulatory front, the most visible manifestation of this is the movement for a \$15/hour minimum wage across the US. The current federal minimum wage of \$7.25/hour has been in place since 2009, and its buying power has declined significantly (McGill & Rust, 2021). In response, there are several towns and states that have raised their minimum wage,² and the Biden Administration recently applied a \$15/hour minimum wage to federal contractors (The White House, 2021). While \$15/hour is less than a living wage in many places, it is much closer to the US average living wage for a family of four (\$21.50/hour per parent) than the current \$7.25/hour (Iacurci, 2021).

Consumers are also starting to expect businesses to pay living wages. According to the 2020 Edelman Trust Barometer, 82% of the public believes that business has a duty to pay everyone a decent wage (Edelman, 2020). JUST Capital’s 2020 survey yielded similar findings. The 4,500 Americans they surveyed noted that the most important issue they expect companies to focus on is “paying a fair, livable wage” (JUST Capital, 2021). The public is also in support of policy proposals to address wage levels. According to Pew Research, 67% of Americans favor raising the minimum wage to \$15/hour (Davis & Hartig, 2019).

Investor activism and engagement with companies focused on encouraging them to pay living wages are increasing as well. Several investor coalitions, including the Platform Living Wage Financials with €4 trillion AUM (ShareAction, 2022), Red Line Voting with £600 million AUM (Red Line Voting, 2022), and ShareAction’s Investor Collaborative for a Living Wage (PLWF, 2022), are directly engaging companies to commit to pay a living wage. Investors have also begun signaling that they plan to increase engagement on living wage issues around companies’ Annual General Meetings, suggesting that investor action may become more public and confrontational (PLWF, 2020).

Perhaps most importantly, employees are speaking up and demanding higher pay. According to the New York Fed, the average reservation wage, or the minimum wage workers would need to accept a new job, jumped from \$30.88 / hour in July 2020 to \$33.15 / hour in July 2021 (Reuters, 2021). In 2019, there were more work stoppages from employees walking out or going on strike than at any time since 2001, many of which were caused by low wages and poor benefits (Semuels, 2021). In 2021, the most common reason cited by US workers for leaving their job during “The Great Resignation” was low pay. (Parker & Horowitz, 2022)

Several businesses have already acted on the growing demands from these stakeholder groups. Recently, the Business for Inclusive Growth coalition, a group of big companies and the OECD, called for its members to act on paying a living wage as a key step toward alleviating poverty and creating decent working conditions (Business for Inclusive Growth, 2021). Separately, Unilever made an explicit commitment to paying all its employees and workers in the first tier of its supply chain a living wage by

² See a current list of local minimum wage increases at the UC Berkeley Labor Center, available at: <https://laborcenter.berkeley.edu/inventory-of-us-city-and-county-minimum-wage-ordinances/>.

2030 (Unilever, 2021). Encouragingly, these actions are beginning to show up in top-line wage growth numbers (Casselman & Smialek, 2021).

How Can We Account for Living Wages?

Businesses are dependent on human capital. Many business leaders understand this and will often declare that “employees are a company’s greatest assets,” a quote made famous by Xerox CEO Anne Mulcahy in 2003.³ Recent research has documented that investments in human capital positively impact firms’ stock price (Regier & Rouen, 2022). Despite this, several businesses offer wages that do not meet basic human needs.

One of the primary effects of low wages is their negative impact on a worker’s physical and mental health. For example, many studies have found a strong connection between low wages and increased risk of suicides (Dow, et al., 2019), heart disease, diabetes (Braveman, et al., 2010) and smoking (Leigh, et al., 2019). Low wages are also empirically linked to lower employee wellbeing, a proxy for mental health (Reeves, et al., 2017).

Individual health – both physical and mental – is strongly connected to growth and performance at both a firm and societal level. Studies have found that higher levels of employee wellbeing lead to higher levels of productivity and firm performance (Ward, et al., 2019). At a macro level, healthy populations improve society’s economic growth directly, through increased productivity and a reduced economic burden of diseases, and indirectly, through health’s impact on education. Conversely, negative health impacts lead to shorter, less productive lives that reduce the size of the workforce and overall economic productivity. This in turn diminishes a society’s potential economic output (McKinsey, 2020). In other words, by paying less than a living wage, businesses borrow from society’s long-run growth potential.

Often, the gap between low wages and a living wage is paid for by the government in the form of social safety net programs⁴ designed to improve workers’ health and wellbeing. In the US, the government funds these programs for over 9.1 million low wage workers and their families, which costs taxpayers as much as \$40.7 billion per year (Jacobs, et al., 2021). Food insecurity, which is experienced by at least 28.6% of households earning below the living wage, is mitigated by programs such as SNAP (USDA, 2021). Full-time workers currently account for 51.2% of SNAP enrollments, or 4.7 million individuals (Government Accountability Office, 2020). Firms that pay below living wage are reliant on these government programs to ensure worker wellbeing and maintain their productive businesses.

As stakeholder scrutiny of low wages continues to grow, businesses need a transparent, standardized way to understand the amount they are borrowing from society. We propose an approach grounded in the double-entry bookkeeping system that is the basis of financial accounting to enable business leaders to understand the impacts of its wage practices in the broader financial context of the firm. This approach moves beyond treating wages as solely an expense on the income statement, challenging the incentive for firms to minimize their wage bill. Moreover, it clearly represents the amount that businesses borrow from society by paying low wages and proposes accounts on the balance sheet that positively incentivize adequate employee compensation.

Our approach proposes the addition of two new accounts on a parallel balance sheet, a *wage liability account* and a *social goodwill equity account*. A company would credit its wage liability by the present value of the difference between its current average wage and a wage benchmark (such as an expected \$15

³ This quotation is attributed to a speech Mulcahy made in May at the Doral Arrowwood Resort in Rye Brook, N.Y

⁴ Public safety net programs included in this analysis include the Earned Income Tax Credit, the Supplemental Nutrition Assistance Program, and Temporary Aid to Needy Families.

minimum wage or the local living wage) and debit its social goodwill by the same amount. As the company takes steps to close the gap, it would subsequently debit its wage liability and credit its social goodwill by the amount it has increased wages.

We note that our approach does not conform to the existing accounting framework. For example, under International Financial Reporting Standards (IFRS), a liability can only be recognized if it represents “a present obligation that arises from past events and the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.” The absence of an expectation to incur an outflow to remedy the past and present payment of below living wages makes the accounting approach presented in this paper unlikely to conform with existing definitions of liability. However, our objective is not to propose a different definition of liability, but rather to provide clarity about how interested stakeholders could evaluate an organization in the presence of significant concerns about the level of wages paid.

Accounting for the Leverage Effect

Imagine a firm expects to pay a worker a \$20,000 annual wage while the living wage is \$30,000. For the sake of simplicity, it expects to pay this wage over the foreseeable future and for the living wage to be the same over time (another assumption that could yield identical result is the firm to expect both the wage and the living wage to grow by the same \$ amount every year). Also, the average turnover in the firm is 20% in which case the firm expects the worker to stay at the firm for 5 years.

In year $t=0$ the firm records the following transactions for an amount equal to the present value of the future (assuming a 3% discount rate) expected difference between wage and living wage:

Debit	<i>Social Goodwill</i>	\$45,797
Credit	<i>Living wage liability</i>	\$45,797

Social goodwill is an equity account and therefore debiting it will reduce equity. Living wage liability is a liability account and crediting creates a liability. Both are non-cash transactions and by decreasing the equity by the same amount that liability increases, the firm’s balance sheet remains balanced. The only difference is that the firm’s leverage ratio (liabilities over equity) increases, to reflect the fact that the firm has borrowed from society. Moreover, note that the income statement is unaffected.

After one year the firm starts decreasing the liability as the tenure of the employee declines and therefore the effect of living wage on the balance sheet and leverage will decline.

In year $t=1$ the firm records the following transaction:

Debit	<i>Living wage liability</i>	\$8,626
Credit	<i>Social Goodwill</i>	\$8,626

In year $t=2$ the firm records the following transaction:

Debit	<i>Living wage liability</i>	\$8,885
Credit	<i>Social Goodwill</i>	\$8,885

In year $t=3$ the firm records the following transaction:

Debit	<i>Living wage liability</i>	\$9,151
-------	------------------------------	---------

Credit	<i>Social Goodwill</i>	\$9,151
--------	------------------------	---------

In year t=4 the firm records the following transaction:

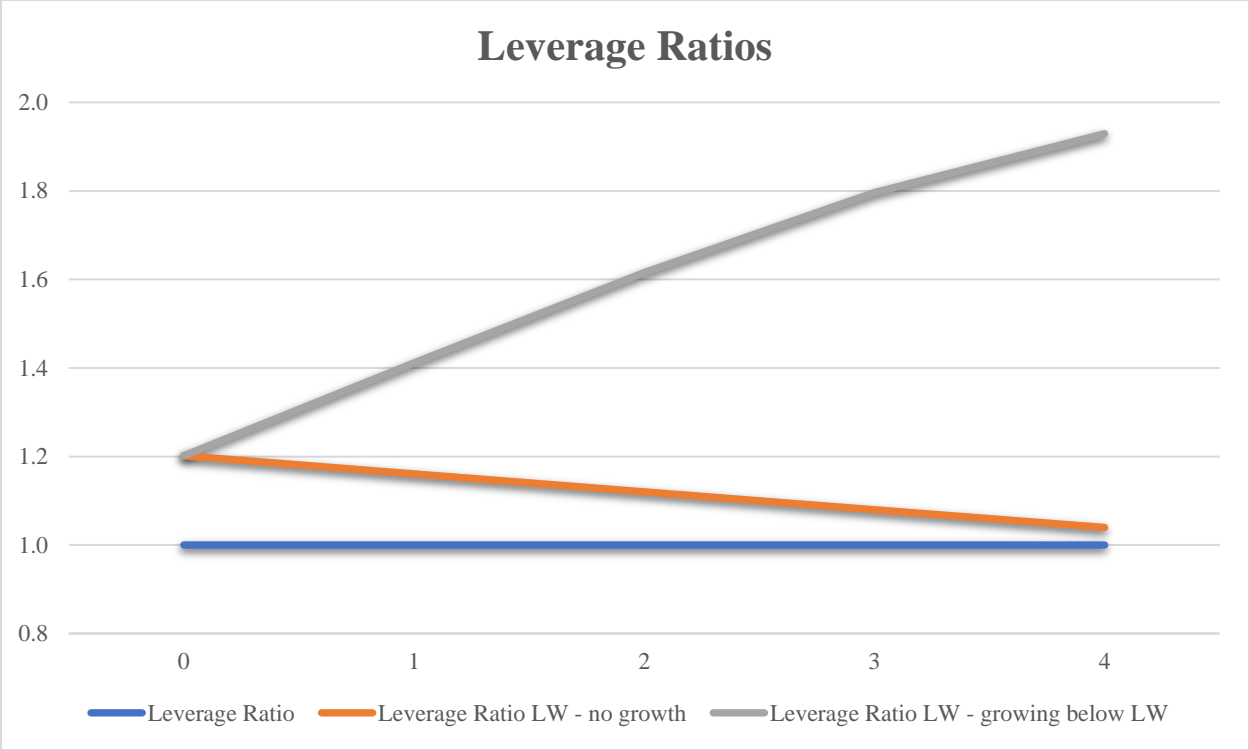
Debit	<i>Living wage liability</i>	\$9,426
Credit	<i>Social Goodwill</i>	\$9,426

In year t=5 the firm records the following transaction:

Debit	<i>Living wage liability</i>	\$9,709
Credit	<i>Social Goodwill</i>	\$9,709

In the absence of unwinding the role of the interest rate, there is no role for the income statement here and the balance sheet can reflect the leverage effect that we described above. One needs to note that the leverage effect will decline over time for firms that do not hire more employees and pay them below living wages. However, for firms that continue to increase the number of employees that are paid below living wages the leverage ratio will increase over time, reflecting the firm's increased borrowing from society.

The figure below shows the evolution of a leverage ratio over time for a firm that starts with \$100 million of equity and \$100 million in liabilities. The example assumes that 200 employees are paid below living wage based on the data given above. The firm has a leverage ratio of 1 when living wages are ignored. This ratio is increased to 1.2 based on the calculation above. This leverage ratio will decline over time and converge to 1 if no more employees are hired at below living wage compensation (orange line). As seen below, the leverage ratio increases over time for a firm that every year hires more and more people below living wage (in this example 210 in year t=1 220 in year t=2 and so on). This firm would see its leverage ratio increase to close to 2.0 by year t=4 as it continuously borrows more human capital from society.



Conclusion

Currently, a firm that pays lower wages, all else equal, produces financial statements that show superior financial performance and position. While an organization’s capacity to control its cost structure can be a signal of strong management and governance for many stakeholders, paying below living wages could represent a weakness rather than a strength that leads to poor outcomes for employees and for the organization, through reputational damage, employee disengagement, and poor consumer relations. Therefore, in this paper we have attempted to provide a conceptualization that portrays an organization paying below a living wage as exhibiting higher leverage. This leverage reflects that fact that the organization is borrowing resources from society and that its boost in earnings from low wages are coming at the risk of stakeholder pressure. The simple double entry bookkeeping process allows for a verifiable and tractable process of the evolution of the leverage effect.

References

Braveman, P.A., Cubbin, C., Egerter, S., Williams, D.R. and Pamuk, E., 2010. Socioeconomic disparities in health in the United States: what the patterns tell us. *American journal of public health*, 100(S1), pp.S186-S196.

Business for Inclusive Growth, 2021. *The B4IG Coalition pushes forward Living Wage as a Corporate Priority*. Available: <https://www.b4ig.org/the-b4ig-coalition-pushes-forward-living-wage-as-a-corporate-priority/>

Casselmann, B. & Smialek, J., 2021. Wage Growth Is Holding Up in Aftermath of the Economic Crash. *New York Times*, 20 July.

Davis, L. & Hartig, H., 2019. *Two-thirds of Americans favor raising federal minimum wage to \$15 an hour*. Available: <https://www.pewresearch.org/fact-tank/2019/07/30/two-thirds-of-americans-favor-raising-federal-minimum-wage-to-15-an-hour/>

Dow, W. H., Godøy, A., Lowenstein, C. A. & Reich, M., 2019. *Can economic policies reduce deaths of despair?*, Cambridge: National Bureau of Economic Research.

Economic Policy Institute, 2021. *The Productivity–Pay Gap*. Available: <https://www.epi.org/productivity-pay-gap/>

Edelman, 2020. *Edelman Trust Barometer 2020*. Available: <https://www.edelman.com/trust/2020-trust-barometer>

Global Living Wage Coalition, 2022. *What is a Living Wage?*. Available: <https://www.globallivingwage.org/about/what-is-a-living-wage/>

Gould, E., 2020. *State of Working America Wages 2019*. Economic Policy Institute. Available: <https://www.epi.org/publication/swa-wages-2019/>

Government Accountability Office, 2020. *Federal Social Safety Net Programs*, Washington: United States Government Accountability Office.

Iacurci, G., 2021. Many Americans, especially families, can't live on a \$15 minimum wage. *CNBC*, 21 February.

Jacobs, K., Perry, I. E. & MacGillvary, J., 2021. *The Public Cost of a Low Federal Minimum Wage*. Available: <https://laborcenter.berkeley.edu/the-public-cost-of-a-low-federal-minimum-wage/>

JUST Capital, 2021. *Amidst Crisis, What Americans Want from Corporate America: JUST Capital's 2020 Survey Results*. Available: <https://justcapital.com/reports/just-capital-2020-survey-results/>

Karabarounis, L. & Neiman, B., 2013. The Global Decline of the Labor Share. *The Quarterly Journal of Economics*, pp. 61-103.

Kucik, J. & Leonard, D., 2021. Millions of working Americans still can't afford food and rent. *The Conversation*, 13 August.

Leigh, P., Leigh, W. & Du, J., 2019. Minimum wages and public health: A literature review. *Preventative Medicine*, pp. 122-134.

McGill, B. & Rust, M., 2021. How Much Does the Federal Minimum Wage Buy You? Now vs. Then.. *Wall Street Journal*, 4 March.

McKinsey, 2020. *Prioritizing health: A prescription for prosperity*. Available: <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/prioritizing-health-a-prescription-for-prosperity>

Mishel, L. & Kandra, J., 2020. *CEO compensation surged 14% in 2019 to \$21.3 million*. Available: <https://www.epi.org/publication/ceo-compensation-surged-14-in-2019-to-21-3-million-ceos-now-earn-320-times-as-much-as-a-typical-worker/>

Parker, K. & Horowitz, J., 2022. *Majority of workers who quit a job in 2021 cite low pay, no opportunities for advancement, feeling disrespected*. Available: <https://www.pewresearch.org/fact-tank/2022/03/09/majority-of-workers-who-quit-a-job-in-2021-cite-low-pay-no-opportunities-for-advancement-feeling-disrespected/>

PLWF, 2020. *Shaping our 2020 engagement priorities*. Available: <https://www.livingwage.nl/wp-content/uploads/2020/02/Insights-into-PLWF-assessments-and-the-trends-in-companies%E2%80%99-performance-and-disclosure-1.pdf>

PLWF, 2022. *Financials for a Living Wage*. Available: <https://www.livingwage.nl/>

Red Line Voting, 2022. *About Us*. Available: <http://redlinevoting.org/about-us/>

Reeves, A. et al., 2017. Introduction of a National Minimum Wage Reduced Depressive Symptoms in Low-Wage Workers. *Health Economics*, pp. 639-655.

Regier, M. & Rouen, E., 2022. *The Stock Market Valuation of Human Capital Creation*, Boston: Harvard Business School.

Reuters, 2021. Workers are changing jobs more often and demanding better wages, Fed survey shows. *NBC*, 7 September.

Samuels, A., 2021. Hourly Workers Are Demanding Better Pay and Benefits—and Getting Them. *Time*, 22 July.

ShareAction, 2022. *Good Work Coalition*. Available: <https://shareaction.org/investor-initiatives/good-work-coalition>

The White House, 2021. *FACT SHEET: Biden-Harris Administration Issues an Executive Order to Raise the Minimum Wage to \$15 for Federal Contractors*. Available: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/27/fact-sheet-biden-harris-administration-issues-an-executive-order-to-raise-the-minimum-wage-to-15-for-federal-contractors/>

Unilever, 2021. *Unilever commits to help build a more inclusive society*. Available: <https://www.unilever.com/news/press-and-media/press-releases/2021/unilever-commits-to-help-build-a-more-inclusive-society/>

United Nations, 2022. *Universal Declaration of Human Rights*. Available: <https://www.un.org/en/about-us/universal-declaration-of-human-rights>

USDA, 2021. *Key Statistics & Graphics*. Available: <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/>

Ward, G., De Neve, J.-E. & Krekel, C., 2019. *It's official: happy employees mean healthy firms*. Available: <https://www.weforum.org/agenda/2019/07/happy-employees-and-their-impact-on-firm-performance>