ODDO BHF
ASSET MANAGEMENT

SUSTAINABLE FINANCE

HUMAN CAPITAL

A KEY FACTOR IN RESILIENCE AND DIFFERENTIATION

NOVEMBER 2020

CONTENTS

EXECUTIVE SUMMARY

The Covid-19 pandemic has triggered a surge in unemployment – 400 million jobs are expected to be eliminated in the second quarter of 2020[1], according to the International Labour Organisation – along with heightened social inequalities. Moreover, it has also laid bare the weakness of global supply chains. This is why companies are more than ever assuming their societal role and adjusting their working conditions to guarantee their employees' physical and mental health, and to stake out their place in the "post-Covid world".

In a report released in August 2020[2], the World Economic Forum identified human capital as "a key factor of differentiation" in the post-pandemic labour market and considered that "had more companies made more human-centric decisions during the pandemic, that would have produced better social, economic and commercial results: unemployment would have risen less, governments would not have needed to provide such large incentives to encourage companies to refrain from layoffs, and, there would have been lower costs for the public sector and taxpayers".

On the scale of companies, the healthcare and economic crisis has sounded the death knell of a model that is overly shareholder-oriented, that doesn't value human capital sufficiently and that, over the long term, generates costs for the company and negative externalities for the company.

Meanwhile, sustainable investors' priorities, which had been heavily concentrated on environmental issues, such as the climate crisis, pollution, and an abusive exploitation of resources, are now refocusing on social issues, including the resilience of human capital and the ability to adjust the supply chain.

These new economic circumstances have forced companies and investors to adjust and to acknowledge the need to get more value out of human capital, but they still face the challenge of measuring the tangible value of intangible assets.

At ODDO BHF Asset Management, human capital has been a key source of companies' sustainable growth since the start of our research work, and its analysis is at the heart of our proprietary ESG research method, which accounts for 30% of a company's overall ESG score.

Similar to planning conducted over the past few years on environmental accounting and the financial materialisation of natural capital, such as by the Kering group since 2014[3], the current crisis should help accelerate work on human capital accounting. With this in mind, let's salute the World Economic Forum's decision to take on this issue while putting forth a methodological framework. This is a notable advance in moving the corporate world towards accounting of three forms of capital: financial, natural and human.

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1 "Covid-19 and the World of Work", 2020
2 "Human Capital as an Asset: An Accounting Framework to Reset the Value of Talent in the New World of Work", 2020
3 https://www.kering.com/in/sustainability/environmental-profit-loss/what-is-an-ep-l/

1

HUMAN CAPITAL: AT THE HEART OF ESG RESEARCH

FROM THE CONCEPT'S ORIGINS TO ITS CURRENT IMPLICATIONS

REVALUING EMPLOYEES' ROLE AND THEIR CONTRIBUTIONS TO THE COMPANY

FROM AN INTERCHANGEABLE FACTOR… TO A FACTOR OF COMPETITIVENESS

The industrial revolution and the advent of Fordism in the early 20th century, including the division and standardisation of labour and the growing automation of production chains, culminated in the era of "efficient" capitalism. This era considered the salaried worker to be a "labour factor" that, while being essential to the production process, had no individual importance and was therefore interchangeable. Workers were placed at the level of machines, and their skills were devalued until they ultimately became seen as a burden and, hence, a cost to be limited to the utmost. Human capital was completely excluded from theories of growth.

The 1960s were a turning point in valuing employees. They then began to be regarded as a rare resource that was to be nurtured and developed. In 1961, Theodore Schultz, a Nobel laureate in economics, used the term "human capital" for the first time in his work on the nature and origins of growth[4]. By that, he meant employee training, the mastering of certain tools, a certain "knack", and senior executives' management skills. Back then, employees' importance was still far from being acknowledged.

> *„ Although it is obvious that people acquire useful skills and knowledge, it is not obvious that these skills and knowledge are a form of capital, that this capital is in substantial part a product of deliberate investment, […] and that [its] growth could very well be the most distinctive feature of the economic system."*

Theodore Schultz, Nobel laureate, 1961

In 1964, research by another Nobel laureate, Gary Becker, concluded that labour, along with motivation, efficiency and employees' physical and moral health constitute a form of capital in its own right and that **such capital is an intangible asset that belongs to individuals themselves**, and not to the company that employs them[5]. Becker regards the employee as an "**individual-investor**", endowed with intertemporal rationality and capable in particular of undertaking a long period of training (and thus foregoing several years of wages) in order to maximise his future gains.

Both Schultz and Becker developed the idea that employee training is an essential lever in enhancing company profitability, as it has a decisive impact on the amount of human capital owned by employees, and, hence, on their level of productivity. Becker makes a distinction between **general training**, which the individual can use on the entire job market, and **specific training**, which enhances his productivity within his company, but has little or no value outside his company.

In theory, it is therefore in a company's particular interest to fund specific rather than general training, as the latter makes an employee more likely to be hired away by the competition.

The race for competitiveness in the 1980s marked a turning point for employees' status as they became a crucial resource in companies' differentiation strategies; **good human resource management accordingly became a priority**. In 1981, Eric Flamholtz and John Lacey stressed the importance of human capital, in that it encompasses "employee skills, experience and knowledge", which, in their view, can have a "considerable potential relevance" in managing human resources[6]. The conviction that it is the people that make the difference in a competitive environment leads companies to **see human capital as a form of asset just as important as financial capital**, which must therefore be attracted, developed and retained, and, hence, monitored closely.

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[4] "Investment in human capital", 1961
[5] "Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education", 1964
[6] "Human capital theory and human resources", 1981

Sharing power more evenly among all stakeholders

The adoption of the human capital theory had important consequences on governance structures and the power balance within companies. Christopher Bartlett and Sumantra Ghoshal (2002) thus suggested rethinking employees' role and prerogatives (as they are the owners of human capital) in symmetry with those of investors (owners of financial capital) and recommended moving away from the idea under which shareholders have priority rights on the distribution of value created, as financial assets are not a firm's only rare resources[7]. Financial compensation of employees is no longer enough; Bartlett and Ghoshal believe that employees must play an expanded role in corporate governance.

The various human capital strategies possible for companies

Human capital has thus been identified over the past several decades by theoreticians as a lever of value creation within organisations but companies themselves can be reluctant to manage it accordingly. Thomas Kochan et al. (2013) identified two contradictory strategies used by companies in their human capital management:

- One strategy often pursued in ultra-competitive and labour-intensive industries consists in an aggressive low-wage policy, the so-called "**low-road strategy**". Human capital in this case is perceived solely as a cost to be kept under control.
- The other, more ambitious "**high-road strategy**" regards human capital as an advantage and invests in its development in order to stimulate innovation, the quality of products and services, and productivity.

Kochan found that the main obstacles to a broader adoption of the high-road strategy are, on the one hand, the constant short-term pressure that managers at publicly traded companies operate under, which incentivises them to strictly limit personnel and training costs in order to boost margins to the detriment of sustainable long-term value creation, and, on the other hand, the fact that companies choosing a low-road strategy are not facing sufficient penalties for doing so.[8]

Prof. Fabienne Autier (2006) identifies three strategies currently used by companies in human capital management[9]:

- **Depreciation**: Some companies, particularly in the service economy, seek to reduce their human resource management costs and to undermine their employees' negotiating clout. These companies tolerate high turnover rates because they believe that specific individuals are not essential to the company's success and that the cost of developing human capital is greater than its benefits. This strategy may be financially efficient, but it is now less and less socially acceptable.
- **Partnership**: Other companies choose to compromise with their employees. They acknowledge employees' importance in creating value but only to a certain extent and decline to grant them political power within the organisation. These companies seek to reduce their turnover and to increase their employees' motivation and loyalty.
- **Recognition**: And, lastly, some companies value the long-term stability of their personnel and choose to develop employee commitment, in order to fully benefit from their potential in terms of human capital. In addition to a generous compensation policy, they give their employees a "say" within the company. Such companies often have low turnover, but are also more dependent on their employees' human capital.

[7] "Building competitive advantage through people", 2002
[8] "The Human Capital dimensions of sustainable investments", 2013
[9] "Human Capital. Beyond the fad, what the analogy really tells", 2006

HUMAN CAPITAL AND THE TRANSFORMATIONS OF THE ECONOMY IN THE 21ST CENTURY

The 1990s were marked by the beginning of the "**knowledge economy**". Individuals possessing highly valued human capital, i.e. skills that are rare and prized by the market, play a predominant role in this type of economy. It is therefore no wonder that **the value of human capital has now supplanted that of traditional physical assets**. According to a study by the EY Center for Board Matters released in 2019[10], intangible assets, which comprise the company's corporate culture and the human capital at its disposal, now account for an average **52% of companies' market value**.

However, the **digital revolution**, a corollary of the knowledge economy, has potentially very harmful effects on workers. The increased prominence of artificial intelligence, robotics and quantum computers have led to growing automation and digitalisation of production processes in almost all sectors, including those that are traditionally rich in human capital. Labour automation has, in many cases, come with offshoring and increased pressure on the integrity of production systems, due to the shortening in the innovation cycle. Such phenomena can undermine the status of a company's workers. Just as employees' human capital is trending upward with greater educational accomplishments, its value is recognised less by organisations, as it is considered less reliable than technology.

THE DIGITAL REVOLUTION: AN AGGRAVATING FACTOR OF LABOUR MARKET POLARISATION

Although these economic disruptions will not necessarily result in a clear decline in the number of available jobs (given that new, higher-value jobs might replace less-qualified ones)[11], the digital revolution could very well introduce a **schism between** low-paid **owners of "basic" human capital** and higher-paid **owners of ultra-qualitied human capital**, leading to skyrocketing inequalities and more intense social tensions. The increase in inequalities is a **significant risk factor** for investors as it destabilises the financial and social systems in which those investors operate, leading to greater uncertainty and a decline in economic activity. Prof. George Serafeim explains in an article co-authored in 2019[12] that taking human capital into account is even more crucial for investors in this context as it allows them to **adequately manage risks over the long term**. He stresses in particular the importance of companies' training policies and their ability to offer their employees reskilling opportunities that match this environment of fast-changing technologies.

[10] "How and why human capital disclosures are evolving", 2019
[11] Theory of 'creative destruction', Joseph Schumpeter
[12] "Human Capital and the Future of Work: Implications for Investors and ESG integration", 2019

Companies are having to take another look at their societal role

The 21st century is being marked **by shifts in companies' societal role**.

At an international scale, companies and their investors have since 2015 been considered crucial players in order to achieve the UN's Sustainable Development Goals (SDGs). Companies' governance and good human capital management could have a positive impact on many of the 17 SDGs, including:

The World Business Council for Sustainable Development (WBCSD), a coalition of multinationals that have integrated SDGs into their global strategies, released Social & Human Protocol[13], a tool that seeks to identify the best practices in human capital and to help companies include them in their performance reviews and decision-making processes. The protocol focuses in particular on:

- **Equitable recruiting** and **suitable compensation** (SDGs n°5, 8 and 10)
- **Developing employee skills and know-how** (SDG n°4), particularly professional training, reskilling and upskilling;
- Employee **healthcare and safety** by setting up a suitable professional environment, ensuring a balance between professional and private lives, and proactively combatting any form of harassment and discrimination (SDGs n°3, 5 and 10).
- Complying with labour law and monitoring the entire supply chain, in order to **ensure that no use is made of any form of forced labour** (SDGs n°3, 8 and 10)

Far from being an additional burden, companies' contribution to the SDGs can offer them an economic opportunity. A company that organises the upskilling of its employees in environmental transition technologies (renewable energies, energy efficiency, sustainable transport, eco-buildings, etc.) can position itself on markets that are both necessary and promising while contributing significantly to SDGs n°4 and n°8.

The "care economy", which contributes to SDGs n°3, 4, 8 and 10, is growing fast, driven by the expanding middle class in emerging economies and an ageing population that is exerting greater pressure on healthcare systems in industrialised countries. As such, it offers an opportunity for robust financial returns. The care economy includes digital education, which, incidentally, is even more crucial at a time when a significant portion of the global population is still under lockdowns. Human capital is now acknowledged as a theme that matters to sustainable investors. And yet, the materiality of its impact on companies' profitability was long considered difficult to measure and was even disputed.

[13] Social & Human Capital Coalition, "Social & Human Capital Protocol", 2019

HUMAN CAPITAL IN CRISIS TIMES

As the Covid-19 pandemic has plunged the world into the greatest healthcare and financial shock in a century, companies have established two priorities as regards human capital: to guarantee employee safety while maintaining an efficient, flexible and welcoming working environment. A recent study by McKinsey, a consultancy firm, points to five avenues in organisational resilience:

- **Improving the recruiting process:**
  concentration of resources on personnel possessing IT skills and increased use of temporary or free-lance workers; wider use of online recruiting.
- **Making internal training more efficient:**
  upgrading basic digital skills for all personnel and developing an agile organisational culture; efforts to assist personal most affected by sudden shifts in their working conditions, to adapt (in marketing, logistics, etc.) through specific and targeted training.
- **Revising performance management systems:**
  improving line-managers' supervisory skills and replacing the annual employee review with more frequent reviews; overhauling talent-management strategy in order to better identify the top-performing profiles.
- **Optimising the employee experience:**
  enhanced monitoring of employee well-being, in particular when remote working tends to reduce the quality of interactions and blurs the border between professional and private lives, and the use of tools to enhance inclusion and commitment of all employees.
- **Strategic planning of employee turnover:**
  revaluation of the hierarchy of "essential" positions, i.e., those that will create post-pandemic value for the company and setting up of a reservoir of skills suited to rapid changes in work, and monitoring of both employee performances and skills.

THE KEY INVESTOR CHALLENGES OF TRANSPARENCY AND STANDARDISATION OF INFORMATION

There is something of a Catch-22 in the disclosure of human capital data: investors cannot understand and place a value on human capital indicators unless such data are reliable, standardised and, hence, comparable, yet they have no reason to request more human capital data if they cannot discern its impact on the company's value. But without investor pressure, companies, on the one hand, are not inclined to invest in developing their human capital, as they believe that it is not valued enough by the market, and, on the other hand, have no incentive to supply detailed data, which they may regard as counterproductive. And yet, both companies and investors would derive immediate benefits from greater transparency in human capital.

Investors' difficulties in appreciating companies' investments in their human capital are due in part to the **qualitative nature of certain facets of human capital**, of which the direct impact on companies' profitability is the most difficult to grasp.

AS INVESTMENTS IN HUMAN CAPITAL ARE COMPLETELY INVISIBLE, APART FROM THEIR COSTS, INVESTORS STILL HAVE A POOR GRASP OF THE LINK BETWEEN THE COMPANY'S ECONOMIC AND FINANCIAL PERFORMANCE

This form of "data blindness" is also caused to a certain extent by current accounting rules, which tend to **penalise investments in intangible assets by treating them as costs for the company**. Unlike all other major categories of investments that companies make to enhance their future productivity and profitability (e.g., infrastructure and research & development), investments in developing human capital are not accounted for separately, nor publicly disclosed.

Nevertheless, new initiatives on the international level are leading to an improvement in taking human capital into account in the future. **ISO 30414** (Human resource management – Guidelines for internal and external human capital reporting), which was released in 2018, is the first to allow companies to **estimate the real contribution of their human capital to value creation**.

Meanwhile, the Sustainability Accounting Standard Board (SASB), a leader in drawing up accounting standards that integrate ESG criteria, launched a human capital research project in 2019 aiming to **establish an accounting framework to identify the tangible financial impacts of human capital management**.

This project will look into the accounting treatment of all owners of human capital (full-time, part-time and contractual workers), as well as how financial materiality of diversity and inclusion issues are taken into account. This should help enhance the reliability and comparability of human capital information. These new or future standards are a major step forward but are not binding for companies.

On the regulatory front, the Securities and Exchange Commission (SEC) proposed in 2019 an amendment to the disclosure rules to require US companies to report human capital data in a standardised fashion. This obligation is already inscribed in European law under Directive 2014/95/EU, pertaining to extra-financial information, which requires all European companies with more than 500 employees to disclose the way they manage human capital in their production and their entire supply chain to all their stakeholders.

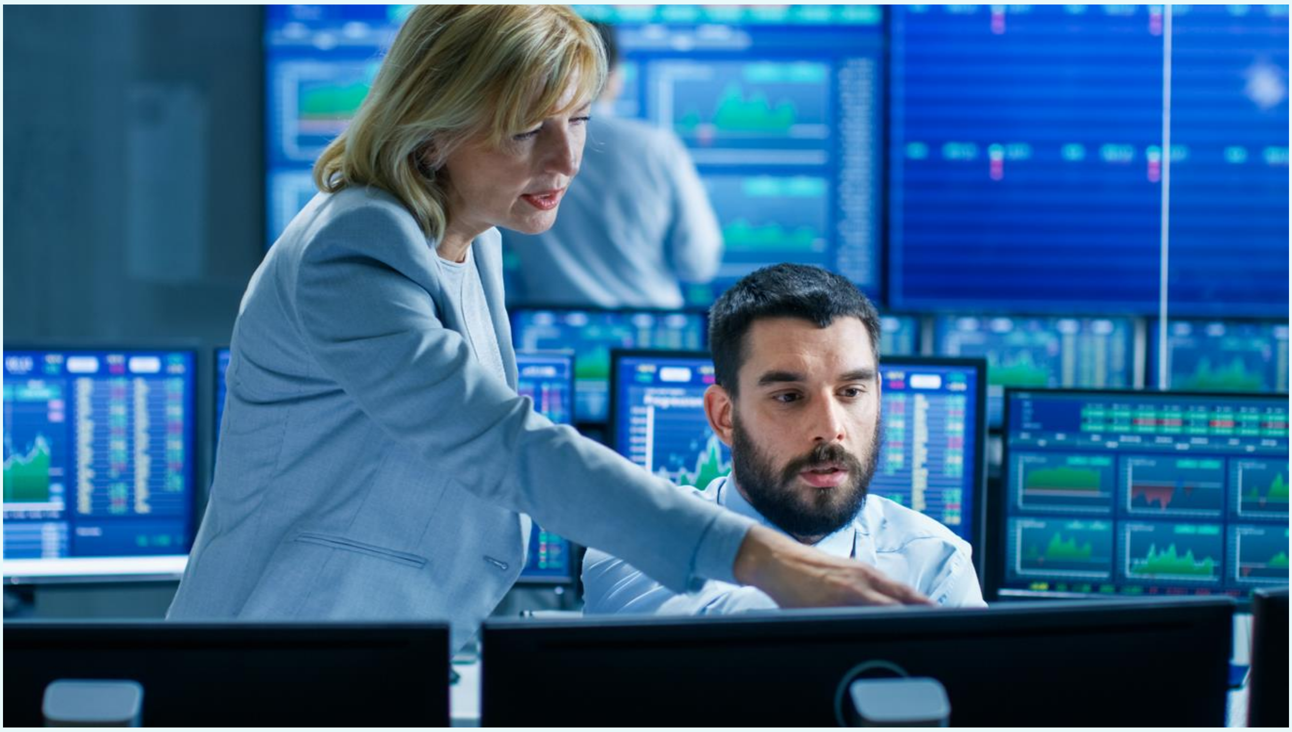
ISO 30414 – Human resources management

ISO 30414 establishes guidelines for companies in inputting, measuring, analysing and disclosing human capital data. This should help enhance standardisation and, accordingly, the proper inclusion of such data by investors.

This standardised approach should, in particular, make data more comparable and increase transparency of financial and non-financial returns generated by investments in human capital.

Human capital accounting analyses 11 areas where a good management of human capital is crucial:

- Compliance and ethics
- Costs
- Diversity
- Leadership
- Organisational culture
- Healthcare, safety and well-being within the company
- Productivity
- Hiring, mobility and staff turnover
- Skills and aptitudes
- Succession planning
- Worker availability



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WHAT AN EXPERT HAS TO SAY

The contribution of intangible capital to value creation is still difficult to grasp, even though such capital can offer companies an important source of growth leverage. The downfall of Boohoo in July 2020, when allegations of severe under-compensation and serious failings in employee health and security in the midst of the pandemic triggered a steep fall in the company's share price, highlighted the importance for investors of a rigorous analysis of human capital in order to anticipate the risks that a mismanagement of these issues pose to companies' performances.

We thank Stéphane Trébucq, Professeur des Universités and holder of the Human Capital and Overall Performance chair at the University of Bordeaux, for providing his expert insight on human capital analysis.

ODDO BHF AM: What, in your opinion, does the notion of human capital take in?

Stéphane Trébucq: Human capital is a multi-disciplinary notion at the crossroads of economics, psychology and human resources, and, accordingly, there is a tendency to take a blanket approach, with a quasi-disciplinary definition. Research by Lepak & Snell (1999) and Ployhart (2014) is, in my view, fundamental in setting a modern definition of the notion of human capital. Ployhart defines human capital as the entire set of an individual's knowledge, skills, abilities and "others" (i.e., the psychological dimensions), and draws a difference between human capital and **human capital resources**, which are the resources that are truly **at the service of a firm's strategic plans**. Lepak & Snell, meanwhile, shed light on alternatives to companies' "internal" human capital. Companies can acquire human capital by hiring employees but they can also do so via **alliances** with external partners. For, in my view, **a fundamental error is to consider that human capital applies solely to the company's employees**. All the company's partners (start-ups, subcontractors, full-time consultants, suppliers, and even their clients, etc.) constitute a precious resource in human capital, which too often is not captured by accounting measurements, nor by traditional ESG criteria, which tend to focus solely on employee compensation, training and well-being. I think a broadened vision of human capital would make sense, with a focus on its **multi-level dimension**; human capital exists at the individual level but also at team level, management level and in external stakeholders. It is the ability to activate knowledge in partnership with all stakeholders that truly creates value for the company.

ODDO BHF AM: On what aspects of human capital must sustainable investors place the highest priority?

Stéphane Trébucq: The three-pronged model developed by the Human Capital and Overall Performance chair at the University of Bordeaux identifies three pillars of human capital: **Skills**, **Behaviour** and **Creativity**. A company's ability to capture the human capital of individuals endowed with the best **skills** now depends closely on the quality of its recruitment and the concept of open innovation, which consists in repatriating external human capital for the company's benefit, particularly via partnerships or cooperation with start-up or students from leading universities. This approach makes it possible to exceed the creative limits and red tape that often burden large corporations. I am confident that innovative solutions in human capital now come from the outside of a company. The notion of **behaviour** also plays a crucial role, as it has been established that employee sociability and a company's quality of culture are basic factors in its business success. The importance of corporate culture and the quality of management is only imperfectly captured by the accounting approach, which focuses on wages and training costs. **Creativity**, by which I mean employee flexibility and agility, as well as the how work is organised within the organisation ("What role do new ideas play? How are they taken on board by management?") is also generally reflected very poorly in extra-financial reports, and sustainable investors would find it worthwhile to take a closer look.

It's interesting to examine the links between human capital and other forms of capital. This, in my view, is one of the limits of ESG methodologies – there is no transversal vision of human capital in analysing companies' environmental and governance policies (i.e., the E and G pillars) : how does the board of directors take on human capital challenges? How are employees trained in environmental issues?

ODDO BHF AM: Intangible capital in general and human capital in particular tend to be underestimated and undervalued in research on companies. What, in your view, is the best way to make companies' human capital more visible? Which indicator should we trust?

Stéphane Trébucq: Indicators used by sustainable investors depend on the quality – which is still poor – of data disclosed by companies. An indicator such as employee satisfaction, for example, is quite useless for the time being, as data is not standardised, and there is a big disparity in methodologies used. Another interesting fact is that in the current context of the "**talent war**", in which companies are trying to attract rare and hard-to-reproduce human capital, there is no incentive to disclose good practices to socially responsible investors, as a company may consider that obtaining a good SRI score is not worth the risk of seeing its methods imitated by its rivals. Keep in mind, however, that as investors develop their own questionnaires and proprietary analysis methodologies, they can produce a richer and more qualitative vision than that reflected by indicators. There has been an initial response to the issue of reliability and transparency of human capital data with ISO 30414 (Human resource management – Guidelines for internal and external human capital reporting), which covers issues related to ethics, costs, leadership, diversity, organisational culture, healthcare, and so on.. What is really needed is a "**Human Capital Disclosure Project**", based on the model of the Carbon Disclosure Project, which would allow investors to request a broader range of information in a standardised framework and in a far more detailed fashion, which would ultimately lead to the creation of more precise and relevant indicators.

ODDO BHF AM: The advent of the knowledge economy suggests that value creation is shifting from physical capital to intellectual capital and leading in particular to the supremacy of high-tech industries. This is often reflected in the increased prominence of artificial intelligence and the growing automation of labour, which could lead to an explosion in the number of "fourth industrial revolution outcasts". How can a better consideration of human capital by companies and by society at large help prevent this major social crisis?

Stéphane Trébucq: The advent of artificial intelligence is jeopardising human capital. It is now possible to automate a portion of human capital, which is termed "**substitute human capital**" or "synthetic human capital". Some human capital has already vanished. How can we withstand this onslaught? Sustainable investors must remain pragmatic, **avoid over-generalising** and keep in mind that human capital will not matter the same from one sector and business model to another. In some highly automated industries, the challenge is not to have new ideas but to produce a lot and at a low cost. Human capital is not fundamental in such industries. In other, less automated sectors, human capital will no doubt lose value in the coming years, and it is important to pay attention to companies' digitalisation strategies. Indeed, keep in mind that the advent of **artificial intelligence generates hidden costs for a company**. It's true that the reduction in human capital that it makes possible will at first lead to substantial savings, but it will end up being very costly, as it sacrifices some creativity and agility. Lastly, some industries, such as fashion and design will continue to rely heavily on the rare human capital of individuals whose special talent is tied into the company's very identity. While such companies appear to be relatively spared for the time being by the social disruption of a machine-dominated era, it is better to remain alert, as this unique human capital also constitutes a big risk for the firm – in the event of failure, reputational risk is very serious, as seen in the Galliano affair.

ODDO BHF AM: What, in your view, are the mechanisms used in human capital management that can help companies hold up better during the crisis we are going through?

Stéphane Trébucq: Human capital plays a key role at the company level in getting ready for a crisis before it happens, withstanding it when it does happen, and rebounding afterward. **Employee satisfaction** has a big impact on a company's resilience, as it leads to greater creativity, better communication, less social parasitism and greater collective efficiency. **The feeling of organisational justice** (i.e., the feeling of being respected and compensated commensurately to one's contribution) is also crucial to employee commitment, motivation and efficiency. **The feeling of psychological ownership** is also fundamental and can be strengthened by employee share ownership. Human capital and employee share ownership are mutually reinforcing. Employees sign up more readily to the company's plans when they own its shares. This has been demonstrated but there is not yet a harmonised and scientific approach in measuring this phenomenon. That said, companies' resilience to the Covid-19 is not entirely due to their human capital. In some industries, tangible assets play a role equivalent to, or greater than, human capital, which marginalises its role in resilience strategies. Human capital will play a greater role in services firms, which tend to employ over-qualified people.

ODDO BHF AM: Do you believe that employer-employee relations during the Covid-19 crisis will lead to an overhaul of the social contract? How would that happen?

Stéphane Trébucq: Under the social contract theory, the company has an implied contract with society, under which society gives power to the company so that it will create value for society in exchange. **The company's contribution to society exceeds mere profit.** It is also called upon to protect the environment and its employees. But protecting employees doesn't necessarily mean keeping them at the company. It means mainly protecting and developing their general employability and allowing them to find a job elsewhere, if need be.

The current crisis is altering the foundation of this social contract in many ways. First of all, remote working has tested the limits of the vision of the firm as a network of various individuals. We have seen that this has led employees to question the meaning of their work. Some of them have felt less useful than in normal times and have questioned the value of their contribution. I believe that it is in **seeking such meaning** and improving dialogue that managers must focus their efforts. There has also been a certain trend towards flatter hierarchies and greater attention paid to a **humanistic philosophy of management**. During the lockdown, managers paid more attention to their employees' health, which helped improve interpersonal relations. Some managers will now want to modify their approach, but we must be careful not to over-generalise, as we often quickly revert to long-standing organisational routines. Some companies have begun to plan a transformation of their working methods, and this could very well result in positive change for human capital. But if no time is given over to thinking about these issues, if managers do not mention these transformations, the overall philosophy of the social contract will not have changed significantly. Keep in mind that a distressed company, which has far more urgent issues to deal with, will tend to "fall into the trap" and regard an increase of the quality of labour relations as neither urgent nor strategic. I believe there is an underlying **humanist dimension** to the concept of human capital. Those who believe that the notion of "capital" constitutes a deviation of the value of employees by capitalism, in my view, have understood nothing of the concept. Human capital means the possible accumulation of knowledge over time. Unlike talent management, human capital affects everybody. It is a democratic concept.

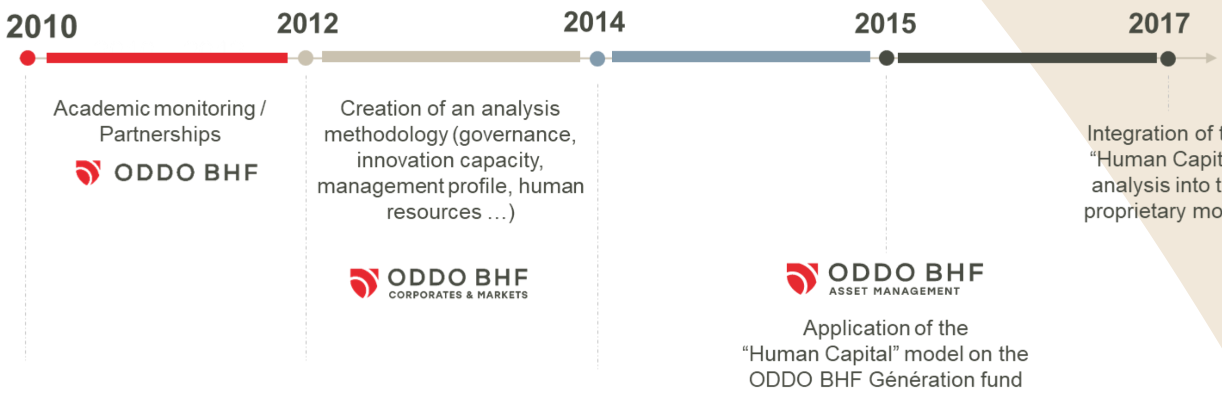
3

HUMAN CAPITAL: A KEY AVENUE OF RESEARCH AT ODDO BHF ASSET MANAGEMENT

The ODDO BHF group has been committed to extra-financial research for about 15 years, first within its intermediation business, then, since signing the PRIs in 2010, in its asset management business. Placing the issue of governance and human capital at the heart of our research has allowed us to conduct research into companies' various intangible assets, from human resources to innovation to manager profiles.

OUR PROPRIETARY METHODOLOGY

As a long-term and conviction-based investor, ODDO BHF Asset Management is confident that an in-depth analysis of human capital is essential to knowing companies well. Alongside the quality of governance and supervisory bodies, we believe that human capital is a key factor in the proper execution of a company's long-term strategy and, hence, its ability to create value for its shareholders and all its stakeholders. Resulting from a collaborative research process within the ODDO BHF group, our proprietary methodology has been an integral part of our ESG research model[14] since 2017.



Source: ODDO BHF Asset Management

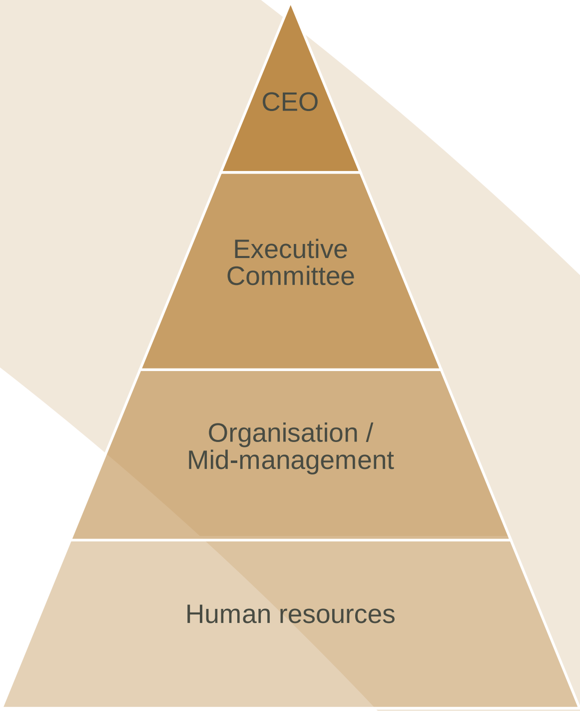
Based on our long-standing monitoring of academic research[15] and on our observation that investors focus their research most often on the quality of management and the top manager himself and his ability to deliver, our research has shifted towards a broad definition of human capital:

- The growing awareness of the human factor, including the individual and his working environment (Elton Mayo[16]) and job incentives (Abraham Maslow[17]);
- A broad definition of management: a company is established and headed by physical persons and not just by organisations and processes (Peter Drucker[18]);
- Leadership: putting the company's interests ahead of one's own interests (Jim Collins[19]).

Hence, our human capital research model is split between quantitative and qualitative data, and reviews the most material criteria throughout the organisation along four avenues: the manager, the executive committee, the mid-level organisation, and human resources.

[14] See in-house model in the appendix.
[15] ODDO BHF is a sponsor and member of the Jury of the FIR-PRI Prize for Academic Research in Sustainable Finance.
[16] "Human Problems of an Industrial Civilization", 1933
[17] "A Theory of Human Motivation", 1943
[18] "Practice of Management", 1954
[19] "From Good to Great", 2001

THE FOUR HUMAN CAPITAL RESEARCH AVENUES



1
- Profile
- Organising succession
- Vision and leadership

2
- Size
- Composition and functioning (cognitive diversity)
- Managing restructurings
- Integration of acquisitions
- Share ownership

3
- Complexity
- Ability to generate organic growth
- Innovativeness

4
- Dysfunction and social risks
- HR management policy (turnover, training, accidents, etc.)
- Productivity
- Employee share ownership

Source: ODDO BHF Asset Management

MANAGER PROFILE

THE IDEAL CEO IS RELIABLE, ANTI-STAR, A VISIONARY AND A LEADER WHO HAS ALREADY LINED UP HIS SUCCESSOR

A reliable and skilful manager who “walks the talk” is needed for any company’s good long-term performance. Our model therefore focuses on indicators that identify managers with a strong professional background and whose past achievements show that they are **able to take and assume brave decisions** for the company’s good. The manager’s **“anti-star” dimension** is another trait that we believe is decisive in how effective he will be. We take a dim view of individuals who serve on several outside boards or who are excessively mediacentric. The highest rated managers in our model are **visionaries** driven by innovation and are able to inculcate an entrepreneurial culture; they are persuasive and thus able to bring all the company’s stakeholders together around a common project.

ORGANISING THE CEO'S SUCCESSION

The matter of organising the CEO's succession should be one of the main items on his agenda and the agenda of the company's board of directors. A refusal to do so (including planning plan B scenarios in the event of a crisis or an accident), regardless of his performance, sends out a negative signal as it suggests that the success of an individual – the CEO in this case – matters more than the success and the future of the company itself.

Succession planning is even more important when:

- the CEO is getting close to the age of 65;
- and/or he/she has completed two terms and/or 10 years at the head of the company.

We prefer successions organised in-house except in the exceptional event of a profound governance crisis, a strategic dilemma or an internal stalemate. Ideally, a manager who has been with the company for more than eight years and has served at several levels of responsibility, in particular in operating roles, has every chance for his/her appointment as CEO to be a success for him/her and, more importantly, for the company and its shareholders. We therefore place a high value on companies that know how to organise the emergence of managers who have already proven themselves at the company. In contrast, "political" appointments from outside the company incur risks of failure or poor performance.

THE EXECUTIVE COMMITTEE

Our model values companies having an executive committee of optimum size (10 to 12 people for a mid or large cap company) to forestall a risk of diluting responsibilities, and an annual turnover of 10 to 20%. We are also attentive to the company's record in integrating acquisitions and managing restructurings. We take a dim view of reactive and non-targeted approaches that do not reflect a long-term strategic view and, most often, create no value. Lastly, we believe that equity shareholdings by executive committee members that link them to financial risk, help align their interests with the company's interests over the long term.

COGNITIVE DIVERSITY ON THE EXECUTIVE COMMITTEE

We recommend a certain level of cognitive diversity within executive committees, as academic research has long found that a diversity of profiles helps the management team make the best possible decisions in economic environments that are increasingly complex and uncertain.

Cognitive diversity can take various forms:

- Diversity in representative roles (operational, support and other roles)
- Diversity by age, which also promotes succession plans (40, 50, 60 years)
- Depending on the company's size, geographical footprint and development strategy: diversity in gender, nationality, expertise, and initial educational background.

ORGANISATION AND MIDDLE MANAGEMENT

We consider it a best practice for companies to have a relatively flat organisational structure, with **few layers of management**, as this makes it possible to clearly identify the repartition of roles and responsibilities. This goes hand in hand with a company's ability to prevent cost overruns for support roles, something that often happens at mature companies that tend to become less nimble.

The company's organisational structure should allow it to generate sustained **organic growth**. This is a good indicator of investor risk, as organic growth comes with limited social and/or cultural risks and cannot be compared to external acquisitions, in particular in the event of mergers between equals.

Innovativeness is another factor in differentiation and long-term performance, making it possible, at least partially and temporarily, to limit price wars and competitive pressure. For investors, innovativeness should generate more growth in revenues and/or pricing power. The indicators that we monitor, which vary in importance from one sector to another, are R&D, number of patent filings, and percentage of revenues generated with new products or services.

HUMAN RESOURCES

TRAINING, IN-HOUSE MOBILITY AND EMPLOYEE SHARE OWNERSHIP ... ALL INDICATORS THAT MAKE A COMPANY MORE ATTRACTIVE

Our ESG research model pays special attention to possible **social dysfunctioning and risks** at companies. We take particular interest in the seriousness and frequency of occupational accidents, absenteeism rates, personnel turnover, and the frequency and duration of strikes. These indicators are compared to sector peers and geographical locations in order to prevent any bias in interpretation.

Human resources management is prominent in our scoring system. We pay especially close attention to policies that promote gender equality and diversity, compensation mechanisms and employee training, as well as opportunities for internal mobility. Good management of human resources makes a company more attractive and better able to recruit skilful, loyal and motivated employees.

Suitable human resource management also enhances **employee productivity**, which can be measured in particular by indicators such as revenues per employee or operating margin per employee.

EMPLOYEE SHAREHOLDING

Employee shareholdings tend to enhance employee commitment and, hence, a company's ability to attract and retain talent. In our view, this is one of the keys to optimum management of human capital within companies.

Employee share ownership means the holding of the company's shares by a significant number of employees in addition to the management team. This indicator is especially positive if:

- at least 25% of employees are shareholders;
- at least 3% of the company's shares are held by its employees.

HUMAN CAPITAL: A CREATOR OF VALUE FOR THE MEDIUM AND LONG TERMS

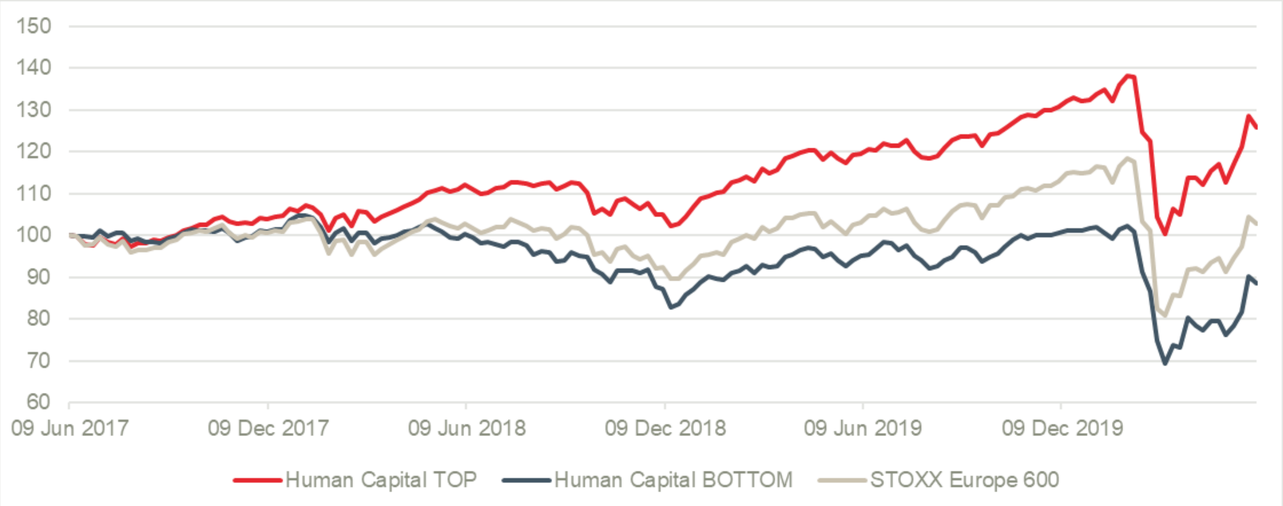
A CONFIRMATION OF FINANCIAL MATERIALITY

Of the 700 companies covered by our proprietary research model thus far (as of June 2020), we identified those that are the top rated (4/5 or 5/5) in the "human capital" pillar and that also have a good overall ESG score (4/5 or 5/5). The 101 companies meeting these criteria are in the "TOP" basket.

We also looked at the performances of companies rated the lowest in our model (1/5 or 2/5 in the "human capital" pillar, as well as the overall ESG score): 49 companies meet these criteria and comprise the "BOTTOM" basket.

As our research focuses mainly on European mid and large caps, it makes sense to compare the performances of these two baskets with the DJ Stoxx Europe 600. We found a very significant outperformance by the "TOP" basket in the past three years (+25.8%), vs. both the Stoxx Europe 600 (2.9%) and the "BOTTOM" basket (-11.5%). This would tend to confirm that good human capital management is a source of performance and superior value creation in the medium and long terms, while, conversely, a subpar strategy in human capital management could have a harmful effect on companies' financial performances.

COMPARED PERFORMANCES OF "TOP" AND "BOTTOM" BASKETS, OVER THREE YEARS



Source: ODDO BHF Asset Management

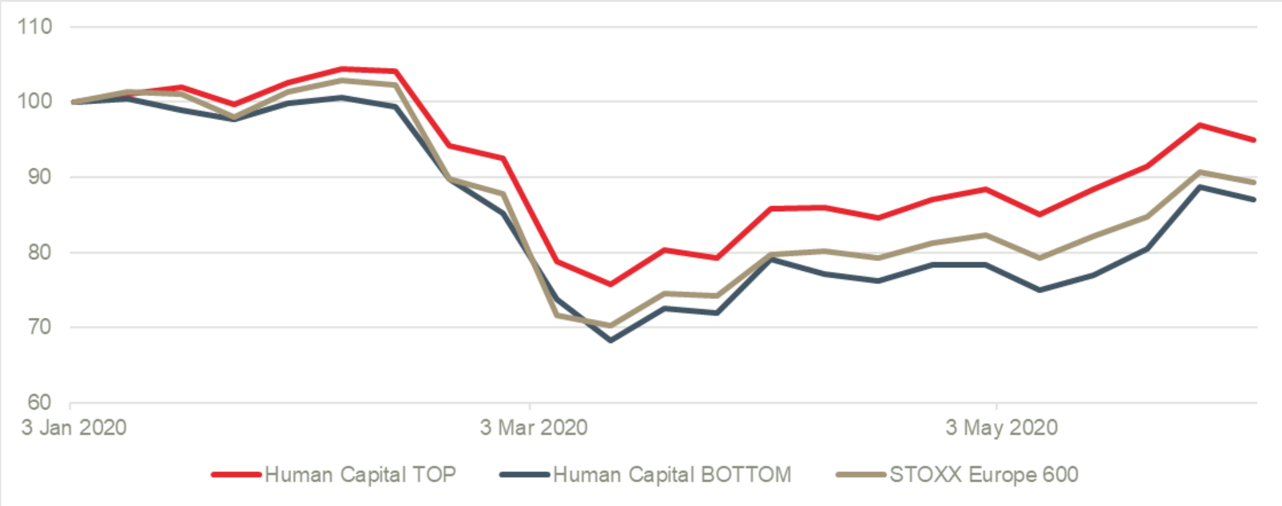
Our findings are in line with earlier research, such as that conducted by Laurie Bassi (2004)[20], which found that a high-quality HR policy produces share outperformance, thus pointing to a true causal link between a proper human capital strategy and solid financial performances.

[20] "The impact of US Firms' Investments in Human Capital on Stock Prices", 2004

A SOURCE OF RESILIENCE DURING CRISIS TIMES

A comparison of the “TOP” and “BOTTOM” baskets’ recent performances is also highly instructive. During the first half of 2020, when the first wave of Covid-19 infections was at its peak and when lockdowns had brought most industries to a standstill and sent the global economy into an unprecedented crisis, the performances of the “TOP” basket were not nearly as bad (-5.1%) as those of the benchmark (-10.7%) and the “BOTTOM” basket (-13%).

COMPARED PERFORMANCES OF “TOP” AND “BOTTOM” BASKETS IN H1 2020



Source: ODDO BHF Asset Management

The enhanced resilience of companies endowed with a suitable human capital strategy during a crisis period echoes a study conducted by Kim & Ployhart after the Great Recession of 2008[21], in which the authors found a positive correlation between the level of investment in human capital and companies’ resilience and concluded that companies that invest their human capital amidst economic turmoil routinely outclass their peers in terms of financial performance.

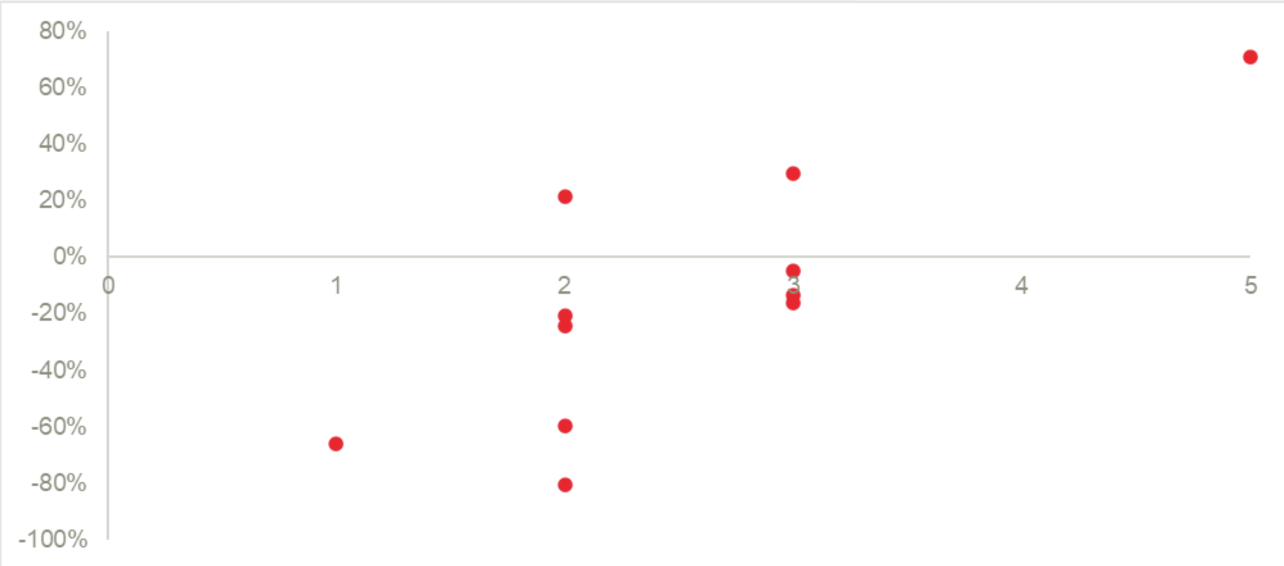
[21] “The effects of staffing and training on firm productivity and profit growth before, during and after the Great Recession”, 2014

CASE STUDY: THE IMPACT OF HUMAN CAPITAL ON TRANSITIONING INDUSTRIES

We also looked into the link between human capital and financial performance in two transitioning sectors – automotive and retailing. We selected companies (mainly European ones) belonging to these two sectors and reviewed the possible correlation between our in-house model's human capital scores (the x-axis) and their share performance over the past three years (the y-axis).

The automotive industry, which is highly consolidated and distressed on a global scale, is facing a double trend that is forcing it to reinvent itself : the declining vehicle sales over the past two years (with things made much worse by the Covid-19 crisis) and strengthened environmental regulations, particularly in the European Union, which are pushing companies to invest massively in research and development into electrical vehicles in order to enhance their carbon balance. The industry regularly faces various issues related to human capital, due mainly to frequent accusations of collusion and anti-competitive practices which cast doubt on the integrity of top management.

CORRELATION BETWEEN SHARE PRICE PERFORMANCE AND THE HUMAN CAPITAL SCORE OF THE AUTO SECTOR

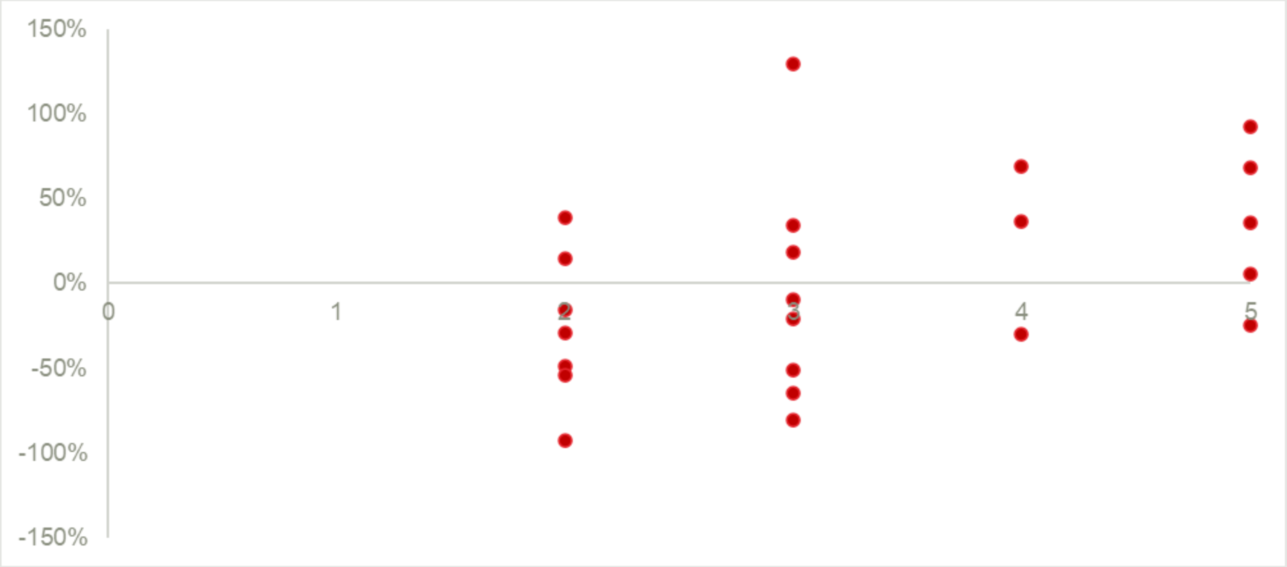


Source: ODDO BHF Asset Management

Interestingly, more than 80% of companies with a below-average human capital score (i.e., 1/5 or 2/5) have had a negative financial performance over the past three years.

Retailing has been one of the sectors hardest hit by the economic fallout of the Covid-19 pandemic, due to its complex and globalised supply chains and the closing of sales outlets in many countries during the lockdowns. This has sped up the digitalisation trend in the industry and led to a boom in e-commerce. The retailing industry is being hit by many human capital challenges, including the guarantee of suitable working conditions, proper compensation, healthcare, and worker safety throughout the supply chain. Retailers also often face accusations of discrimination and hindering freedom of assembly.

CORRELATION BETWEEN SHARE PRICE PERFORMANCE AND THE HUMAN CAPITAL SCORE IN THE RETAILING SECTOR



Source: ODDO BHF Asset Management

75% of companies that scored high in human capital (4/5 or 5/5) have achieved positive financial performances over the past three years, whereas only 28.5% of the companies rated lowest (1/5 or 2/5) on this criterion have.

An isolated analysis of companies' human capital is not sufficient to estimate their future profitability, but this criterion can nonetheless serve as a relevant indicator of the operational risks that they are exposed to. Human capital, which affects the entirety a company and its relations with various stakeholders, thus offers a finer means of understanding that should not be neglected.

Technological revolution, societal trends, and organisational resilience in an unstable world – all this pleads for a standardised measurement of human capital in companies' value creation. ODDO BHF Asset Management has placed human capital at the heart of its extra-financial research methodology for many years, and we closely monitor research and progress in accounting of financial, natural and human capital.

GLOSSARY

Intangible assets: These are all assets that do not exist physically but nonetheless contribute to the companies' revenues. This term covers everything coming under intellectual property, human capital and administrative authorisations.

Knowledge economy: An economic period that began in the early 1970s and was marked by the predominance of industries based on the knowledge and manipulation of information. According to the OECD, this includes high-tech industries, as well as all services, banking and insurance firms.

ESG: environmental, social and governance criteria are used to determine a company's societal contribution and are now commonly used by investors to supplement their research on companies' financial performances, mainly to better grasp the risks that are inherent to their activities.

HCMC: The Human Capital Management Coalition is a coalition of investors with 2.6 trillion dollars of assets under management that promotes enhanced consideration of human capital by investors. The HCMC sent a petition to the US Securities and Exchange Commission (SEC) in 2017 requesting an upgrade of legal disclosure obligations of companies' extra-financial indicators.

SDGs: The Sustainable Development Goals are 17 objectives established by the United Nations in 2015 for the 2020-2030 period. SDGs are designed to meet sustainable global development challenges in many areas, such as poverty, access to water, hunger, inequalities, climate change, environmental destruction, peace and justice.

Open Innovation: Research & development methods based on working with stakeholders outside the company, which make it possible to share risk but also to contribute to the free sharing of knowledge (this is an approach often used by solidarity economy players).

SASB: The Sustainability Accounting Standards Board is an organisation that sets accounting standards suitable to investors' growing demand in ESG themes.

SEC: The Securities & Exchange Commission is the US market regulator, in charge of regulating and supervising financial markets.

WBCSD: The World Business Council for Sustainable Development is a coalition of 190 multinationals founded in the wake of the Rio Earth Summit, in 1992, which seeks to promote sustainable development.

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APPENDIX

OUR ESG RESEARCH MODEL

MSCI | CDP | Bloomberg | FACTSET

ENVIRONMENT

- Environmental management system
- Environmental opportunities
- Environmental risks

10 to 30%

SOCIAL

- Regulation
- License to operate / Reputation
- **Human capital (30%)**
- Social ecosystem

40 to 50%

GOVERNANCE

- Sustainable development strategy
- **Corporate governance (25%)**
- Business ethics

30 to 45%

Internal rating scale of **execution risk**

1	2	3	4	5

High risk… … High opportunity

About ODDO BHF Asset Management

ODDO BHF AM is part of the independent Franco-German financial group ODDO BHF that was founded in 1849.

ODDO BHF AM is an asset management leader in Europe. It comprises ODDO BHF AM GmbH in Germany, ODDO BHF AM SAS, ODDO BHF Private Equity SAS in France and ODDO BHF AM Lux in Luxembourg, which together manage assets totaling € 55.9 billion.

ODDO BHF AM offers its institutional and wholesale clients a unique range of high-performance investment solutions in all main asset classes, i.e. European equities, quantitative strategies, fixed income, multi-asset solutions, private equity and private debt. A UN-PRI signatory since 2010 ODDO BHF AM has integrated sustainable investment criteria into a wide range of strategies. Its ESG approach focuses on ESG criteria integration, engagement with companies and a climate policy supporting the energy transformation.

On a combined basis, 61% of assets under management are from institutional clients and 39% from distribution partners. The teams operate from investment centers in Dusseldorf, Frankfurt, Paris and Luxembourg with additional locations in Milan, Geneva, Stockholm, Madrid, Hong Kong, Abu Dhabi and Zurich.

ODDO BHF AM puts the long-term support of its clients at the heart of its priorities. Its independence allows its teams to be responsive, flexible and innovative in order to constantly find solutions tailored to the customers' needs.

DISCLAIMER

ODDO BHF AM is the asset management division of the ODDO BHF Group. It is the common brand of four legally separate asset management companies: ODDO BHF AM SAS (France), ODDO BHF PRIVATE EQUITY (France), ODDO BHF AM GmbH (Germany) and ODDO BHF AM Lux (Luxembourg).

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