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INVESTING FOR LONG-TERM VALUE CREATION

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Non-technical summary

Investors can realise long-term investment returns by investing in and engaging with companies that are capable of adding value over the long-term. To achieve this, a paradigm shift is needed.

The inherent problems of the current discourse

Traditional (neo-classical) investment approaches only capture financial value in their financial risk and return space. The efficient markets hypothesis assumes that all relevant information of a company is incorporated in its market or stock price. The theory argues for keeping the amount of buying and selling to a minimum, which eliminates a lot of visible costs (for example fees). This theory however presupposes entirely rational investors, of which behavioural finance studies have shown the contrary. Evidence shows that markets are not always efficient, investors are not always rational and sustainability anomalies are usually not incorporated. Due to these anomalies markets can be seriously over- or undervalued and pricing should therefore not be followed blindly. Moreover, passive investment strategies fail to seize opportunities in the creation of long-term value.

Modern portfolio theory on the other hand, does not offer complete salvation either. The capital asset pricing model emphasizes that risk is an inherent part of higher reward. Based on the level of risk, expected return can be maximized. The problem with this model however, is that the concept of risk is solely understood in financial terms and moreover focuses too much on risk indicators that are based on past information. This model therefore fails to incorporate other risks (environmental, social) as well as future risks adequately.

Performance measurement is also induced by strong financial risk-return thinking and based on the idea that an index can be representative for the entire market a portfolio is in. Portfolios are measured as a whole against their market index (benchmarking). This method is however too narrow and constrains from analysing companies individually properly as well as providing integrative insights (concerning environmental and social dimensions) on the long term.

The limitations of ESG-ratings

There have been numerous attempts to complement these purely financial metrics by integrating ESG-ratings. However, they have their limitations by design. They have too little focus on material issues; a company with major governance issues can still score quite well on average (by ticking all the other boxes positively). Additionally, the ratings are usually solely based on reported data and policies. This covers only part of the relevant data and creates a bias towards larger companies who have the capacity to report on sustainability more extensively. Plus, the rating scores are based mainly on operations and do not take the sector as a whole into account. This can lead to the counterintuitive situation in which a coal company is a 'sustainability leader' in its industry. Lastly, the number of stocks analysed per ESG-analyst is usually too high to perform actual in-depth research. As long as ESG-ratings are only supplementary and not an integrative part of business models and financials, they will only help to some extent: they will shift away capital from some of the worst companies and industries, but not truly boost sustainable business (opportunities).

Long investment chains

Another problem lies with long investment chains. The longer the investment chain, the more parties are involved, the more valuable information gets lost along the way. And paradoxically, when investing with a long-term focus, these problems will only get worse.

As the payoff is more distant and uncertain, there will be more incentive to combat these insecurities with short-term measurement.

Adaptive markets as a new paradigm

A more appropriate approach could be the adaptive markets hypothesis, in which the principles of evolution such as adaptation and natural selection are applied. This theory suggests that prices reflect as much information as dictated by the combination of environmental conditions and the number and nature of distinct groups of market participants. Contrary to the efficient market theory thus, this hypothesis holds that the efficiency of markets depends eminently on context and which way competitors can adapt adequately. This model offers a possible (conceptual) solution to work towards long term value creation and adaptation to a sustainable economy.

How to make it work

It might provide relevant insights, but how do we make long-term value creation within an adaptive framework actually work? Using solely ESG-indices is not sufficient to truly boost sustainable business. Investors need to conduct fundamental analysis of a company's business model and strategy with a view of assessing their potential for long-term value creation. Based on such in-depth analysis, meaningful and active engagement can be executed. There is a need for a broader understanding of how to measure performance: from short-term financial to long-term financial and extra-financial. Benchmarking as a performance measurement is problematic since it provides mainly backward looking information and is predominantly finance based.

New developments in measuring performance

Benchmarking does have important merits, even when it comes to a more sustainable approach. A possible solution would be to use benchmarking as a method in a more flexible and slightly adapted way (while not losing sight of its limitations of only measuring the financial dimension). For example by using a broader range of indices or an absolute five-year average return target. It is also crucial to include non-financial measurement: measuring contribution to the UN global sustainability goals and performance on specific (ESG) KPIs. KPI integration on ESG is relatively new; it still has some limitations in terms of clear definition, cross-company and cross-sectoral measurement and in offering a comprehensive understanding on a company's contribution to sustainability on a whole. The SDG's form a welcome 'new' development as well. Even though extensive data is not yet available and full measurement not yet possible, the framework allows for investors to assess their portfolios on SDG exposure and see in what way companies are prepared for the transition to a sustainable economy.

Transition preparedness as a new lens to look through

In conclusion, long-term value creation can be achieved if we shift towards a more adaptive paradigm. Achieving such paradigm (behavioural) change is quite a challenge. It can only work in an active investment strategy in which substantive (ESG-) assessment of companies is key to analyse the transition preparedness (to a sustainable economy) of these companies.

Solely quantitative approach will not suffice, since the rating models we currently have are of limited use (see earlier) and there is a lack of universally relevant indicators (which makes it impossible to rate on a market level). A bigger and different role will therefore be set out for asset management. There will be a need for new expertise and knowledge, tools and sufficient data (a new and broader 'lens' to look through). This kind of in-depth transition preparedness analysis is only effective when you have a limited amount of companies. For effective and active engagement with companies, this is also important. As such, it pleads for concentrated portfolios and shorter investment chains.

Investing for Long-Term Value Creation

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Abstract

In the transition to a sustainable economy, companies are increasingly adopting the goal of long-term value creation, which integrates financial, social and environmental value. However, investors struggle to invest for long-term value and perform the social function of finance. Traditional investment approaches, based on the neo-classical paradigm of efficient markets and portfolio theory, only capture financial value in their financial risk and return space. Attempts at ESG integration are typically too shallow to overcome this problem. In this paper, we examine the set of issues that make this problem so stubborn and we outline the contours of an alternative paradigm that is better able to pursue long-term value creation. Its elements include short investment chains, active management that assesses companies' transition preparedness, concentrated portfolios, and deep engagement.

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1. Introduction

To guide the transformation towards a sustainable and inclusive economy, the United Nations have developed the 2030 Agenda for Sustainable Development with 17 concrete sustainable development goals (UN, 2015). The corporate sector can play an important role in achieving these sustainable development goals through long-term value creation. The concept of long-term value creation means that a company aims to optimise its financial, social and environmental value in the long term (Dyllick and Muff, 2016; Tirole, 2017; Schoenmaker, 2018). The optimisation requires a careful balancing of the three dimensions whereby none should deteriorate in favour of the others. Unfortunately, current business practices are still too narrowly focused on short-term financial returns, meaning that we fail to achieve inclusive capitalism (e.g. Cort, 2018). For decades, maximising profits has been the leading objective in corporate finance. However, recent papers (e.g. Magill, Quinzii and Rochet, 2015; Hart and Zingales, 2017) argue for a broader corporate objective than shareholder value in a narrow sense.

Hart and Zingales (2017) challenge the prevailing idea that externalities, like charity, can be outsourced to the shareholders. They make a distinction between shareholder value, which aims for maximisation of financial value only, and shareholder welfare, which incorporates social and environmental externalities. An important assumption in their model is that these externalities are linked to a company's operations. So, companies face a choice in the degree of sustainability in their business model. The mechanism in Hart and Zingales (2017) to guide that choice is voting by prosocial shareholders on corporate policy.

Magill, Quinzii and Rochet (2015) also argue that large companies should act in the interests of a broader group of agents than just their shareholders (the stakeholder view). In their model, a large firm typically faces endogenous risks that may have a significant impact on the workers it employs and the consumers it serves. These risks generate externalities on these stakeholders, which are not internalised by shareholders. Magill *et al* (2015) analyse how a stakeholder criterion can improve on the shareholder profit-maximising equilibrium.

The internalisation of externalities is a dynamic process. Some externalities are already internalised through best business practices at companies, for example, energy and material savings in the production process and cultivating an inspired work force. Further externalities may be internalised in the future under pressure from government interaction, such as regulation and tax, societal pressure, and technological developments, such as low cost solar and wind energy. Companies can incorporate externalities by connecting the relevant social and environmental dimensions to their business model (Schramade, 2016). That is in line with the Hart-Zingales and Magill-Quinzii-Rochet models, which assume that the externalities are connected to a company's production process.

The materiality (or lack thereof) of the social and environmental dimensions varies per industry, and also within industries, depending on the nature of the industry, the specific company's business model and local conditions. New evidence indicates that there is a business case for full environmental, social and governance (ESG) integration into investment. Companies that perform well on material ESG issues, also show a superior financial performance (e.g. Khan, Serafeim and Yoon, 2016; Clark, Feiner and Viehs, 2015).

This is consistent with the idea that strong management of material ESG issues brings a real competitive advantage.

But the evidence on the link between ESG and performance is mixed. In a meta-study, Friede, Busch and Bassen (2015) obtain that some 90 per cent of studies find a nonnegative relation between ESG and company financial performance, while the large majority of studies reports positive findings. In another meta-study, however, Revelli and Viviani (2015) find there there is no real cost or benefit to socially responsible investing (SRI) but that the level of performance depends on the methodological choices made by researchers to consider the matter or the ability of SRI funds managers to generate performance.

Investors are increasingly using ESG ratings to incorporate the social and environmental dimensions in the investment process. But these external ratings rely on scanty and sometimes conflicting data (Tirole, 2017) and provide only limited information on material ESG factors. Schramade (2016) argues that investing in sustainable companies (defined as companies that optimise financial, social and environmental value in the long term) requires doing fundamental analysis of the business model and the underlying value drivers of investee companies. In that way, fundamental analysts can assess companies' social and environmental value, in addition to their financial value. Unfortunately, very few investors actually do this.

In this paper, we examine the set of issues that make this problem so stubborn: the fact that pricing, allocation and performance measurement are all versed in the language of efficient markets; and that the other components of the current paradigm are skewed towards optimisation within that same narrow financial risk-return framework. Long and complicated investment chains -from the ultimate provider of capital to the ultimate user of capital- mean that incentives are distorted, the horizon gets shorter with each extra party in the chain and meaningful information is lost along the chain (Neal and Warren, 2015).

We outline the contours of an alternative paradigm that is better able to pursue long term value creation (summarised in Figure 1). It breaks away from efficient market thinking and assumes adaptive markets where the incorporation of sustainability information into stock prices is an adaptive process, of which the success is dependent on the number of fundamental analysts engage in transition preparedness analysis – and the speed and quality of their learning; where investment chains are short, engagement is deep. In such a setting, the financial system can fulfil its task of allocating funding to its most productive use, and achieving long-term value creation.

This paper is organised as follows. Section 2 discusses how the current paradigm suffers from an overreliance on market metrics and complicated investment chains. Section 3 then outlines what an alternative paradigm could look like and how it could be achieved. Finally, Section 4 concludes.

Figure 1 Contours of an alternative paradigm

Dimension	Old paradigm	New paradigm
Pricing	Efficient markets hypothesis	Adaptive markets hypothesis
Objective function	Max F s.t. minimum S and E	Max F + S + E
Allocation	Factors, indices and ratings	Long-term value creation potential
Performance measurement	Financial	Financial & extra-financial
ESG considerations	Shallow: ESG as an overlay	Deep: assessing transition preparedness
Favoured approach	Passive, limited engagement	Active, deep engagement
Investment chain	Long and complex	Short
Role for asset management	Efficiency / aggregation	Financial performance and social function of finance

2. The current investment paradigm and its (over)reliance on market metrics

The efficient markets hypothesis and portfolio theory have been so influential over the past five decades that they pervade the language and thinking of asset management. These theories also established the separation of finance and ethics. Traditional finance is consistent with the argument of Friedman (1970) that ‘the business of business is business’. In this view, it is the task of the government to take care of social and environmental concerns. This separation between finance and societal concerns seems especially true in the US (Simon, 2017) but it applies to the entire global financial system, which is dominated by US asset managers and US investment banks. It is second nature for investors to think and communicate in market benchmarks and market risks. This naturally affects the functions of pricing, allocation and performance measurement in the investment process. It also affects how sustainability is integrated; what investment approaches are favoured; the complexity of investment chains; and the role of asset managers.

2.1 ‘Efficient’ pricing makes blind

The efficient markets hypothesis assumes that all relevant information of a company is incorporated in that company’s stock or market price (Fama, 1970). So, investors cannot systematically beat the market. The market is supposed to be so efficient that it immediately incorporates all relevant new information, making it impossible for investors to benefit from superior insights or information. While there are differences in risk-return profiles across assets, these assets are assumed to be priced accordingly. Arbitrage makes sure that prices stay correct: abnormally high return assets immediately attract more fund flows, which drive up prices and reset expected returns back to the market rate. As a result, in the world of efficient markets, all information is incorporated in stock prices.

However, there is plenty of evidence that markets are not always efficient. Whereas the efficient markets hypothesis assumes perfectly rational investors, a vast body of

behavioural finance literature has shown since the 1970s that people (including investors) are far from rational (e.g. the early work by Tversky and Kahneman (1973), the review article by Barberis and Thaler (2003)). The efficiency of markets has also been questioned by strong evidence on the momentum factor, which shows that stocks that have done well over the past few months tend to continue to do well over the next several months (Jegadeesh and Titman, 1993). Behavioural finance indicates that such lack of rationality has important implications for financial markets, which can be seriously overvalued or undervalued for extended periods of time. More recently, these behavioural anomalies have been supplemented by sustainability anomalies (e.g. Khan, Serafeim and Yoon, 2016; Hong, Li and Xu, 2016)). This indicates that pricing is a far from perfect signal, which should not be followed blindly.

2.2 Allocation close to the market

The capital asset pricing model built on modern portfolio theory (Markowitz, 1952) stresses that risk is an inherent part of higher reward. Importantly, risk and return characteristics should not be considered in isolation per security, but by how much the investment affects the overall portfolio's risk and return. One can construct an efficient frontier of optimal portfolios that maximise expected return for a given level of risk, leading to an efficient economic allocation (e.g. Elton, Gruber, Brown and Goetzmann, 2014). In the capital asset pricing model, the only relevant variable to determine a stock's return is its sensitivity to the market, which is called systematic risk. The non-systematic or idiosyncratic risk is not priced. In equilibrium, all investors hold the market portfolio, which is replicated in the market index. It suffices to adopt a passive investment approach by investing in the market index. That is a very strong idea indeed. And in practice most investors indeed seem to be positioned close to the market. But the problem is the narrow view on financial risk and return, ignoring the social and environmental dimensions. Even the measure of financial risk is rather narrow, as it is based solely on the volatility of past stock returns, which not necessarily captures future financial risk, let alone the fundamental risks of the companies in the portfolio.

2.3 Narrow performance measurement

Performance measurement is also versed in the language of portfolio theory. The narrow financial risk-return thinking has led to a strong focus on the stock price as central performance measure for executive and investor performance. The traditional way of performance measurement is the benchmarking of an investor's returns to those of the relevant market index, which is confined to the financial risk and return dimension. Market benchmarks are indices, such as the MSCI World Index or the MSCI All Country World Index, that consist of a basket of the largest companies by market capitalisation in a certain market (i.e., the global stock market, a regional market like Developed Asia or a sector like Real Estate). The underlying idea is that the index represents 'the market'. When assessing a fund manager's performance, his or her performance will be measured against such a benchmark (was it higher or lower over the past 5 years, 3 years, 1 year, 6 months, 1 month, and 1 day?), correcting for the amount of risk the fund manager took in achieving that result.

Measures for such market risk-taking include beta, tracking error, information ratio and Sharpe ratio (e.g. Elton, Gruber, Brown and Goetzmann, 2014). These performance measures relate a portfolio's return to the market return (or the risk free rate return), which is calculated in a financial risk-return space. In this view, there is no need to analyse the companies in the portfolio themselves; only the sensitivity of the portfolio's return to the market. The social and environmental dimensions are not included in these performance measures. And how can markets maximise long-term value if its major components are not measured?

2.4 ESG considerations as an overlay

Several efforts have been made to supplement the market metrics with ESG ratings and ESG indices. But they only help to some extent. Like Corporate Social Responsibility (CSR) on the corporate side, they do not address the core of the issue but rather consider ESG as something besides financials and business models, instead of something that is part of what drives business models and financials. That is also how most investment professionals have been using ESG ratings and ESG indices: as yet another indicator that may look good or bad, but which hardly affects their investment decision. The advantage of these ESG ratings is that they provide investors with a quick approximation of a firm's ESG quality, just like a price-earnings ratio provides investors with a quick view on a firm's valuation. However, just like valuation multiples, ESG ratings are merely imprecise shortcuts and one should be vigilant of errors.

In fact, ESG ratings have a number of limitations by design. First, ratings want to be too many things to too many people. They have little focus on material issues (i.e. issues that are relevant to the investee companies), while it is crucial for investment purposes to focus on material issues (Khan, Serafeim and Yoon, 2016). This means that a materially negative (and potentially fatal) issue is easily cancelled out by high scores on immaterial items, resulting in serious mistakes, which would have been spotted in a diagnosis by a seasoned analyst. For example, the software fraud at Volkswagen was not very surprising given the major governance issues at the firm, with fighting shareholders and the local government pushing to maximise financial returns and employment at the expense of environmental standards. Although these issues were well flagged, Volkswagen nevertheless got very high ratings with most of the ESG rating agencies as it ticked many positive boxes on other issues.

Second, the ratings are based on reported data and policies, which is only a fraction of what is needed for a good assessment and sometimes even conflicting (Tirole, 2017). Moreover, it creates biases in scores, for example, on size (as they favour large companies with big sustainability staff departments) and region (higher scores for European companies). Yet other firms, especially small ones, get low ratings since they do not put enough information on their policies in the public domain; or they get misclassified and compared with the wrong kind of firms.

Third, scores are 'industry neutral' and based mainly on operations, while hardly taking into account the products of the companies in question. This can result in ratings that are intuitively wrong, as the least bad companies in very unsustainable industries (say coal or tobacco) still get very high scores and can be named sustainability leaders.

Finally, there are too many stocks (as many as 70) covered per analyst, which also makes an in-depth assessment unlikely. While the ESG ratings agencies do aim to address these design limitations, they seem trapped by their own frameworks, which they are reluctant to change because they want to maintain consistency in their data.

Hence, it is not surprising to see a lack of correlation in scores between ratings agencies. Across 1,600 stocks in the MSCI World benchmark, Howard (2016) finds a correlation of 26 per cent between the scores assigned by the two largest rating agencies. Based on survey data, Mooij (2017a) concludes that ‘reporting fatigue, a lack of convergence and the (sometimes) poor quality and transparency have made the ESG rating industry more vice than virtue in the adoption of responsible investment.’

In sum, ESG ratings need to get better. Investors should not accept them as the conclusion on a company’s sustainability quality, but rather as a starting point for analysis. What is more, they should reconsider some of their core assumptions to really embed ESG in their investment process.

2.5 Passive as the favoured investment approach

The pervasiveness of efficient markets thinking also affects the choice of investment approaches. Since all information is supposedly incorporated in stock prices, one could argue that everyone should do passive investing, as there are no benefits from active investing. The industry has increasingly been buying this argument, also since passive investing minimizes visible costs (i.e., fees) as well as career risks for consultants. However, given the merely economic allocational role of passive investing, this seems pennywise and pound foolish.

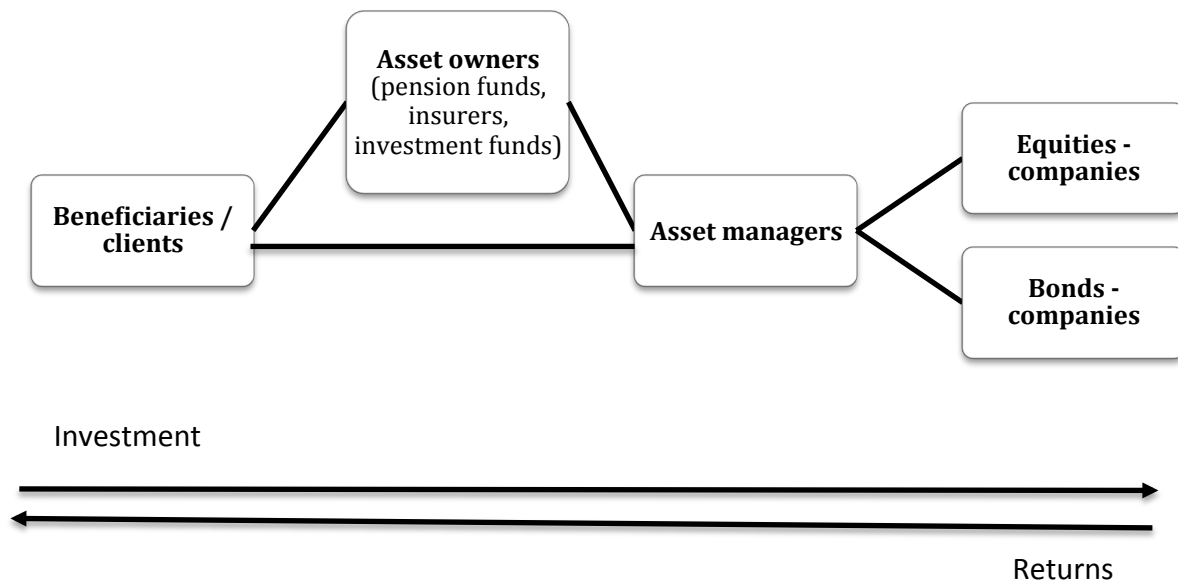
The strength of passive investing is that it involves huge amounts of capital that can be moved across types of passive investing, i.e. across asset classes, and potentially also from unsustainable to sustainable companies. However, its allocational role is ultimately limited as it cannot really distinguish between sustainable and unsustainable business models. Indices based on ratings (and their abovementioned problems) cannot do that. Sustainable indices with exclusions of say tobacco have been an important step forward, as they at least allow investors to avoid allocating capital to the worst companies. But they still do not select for opportunities, let alone long-term value creation.

2.6 Long and complex investment chains

Long investment chains exacerbate the reliance on market metrics, as each party wants to monitor the investment performance of the next party in the chain. Along the chain, a lot of valuable information is lost. In institutional investment, there is a long and complicated chain of parties that sit between the ultimate provider of capital (typically someone investing for his or her retirement) and the ultimate user of capital (typically a company or project). In their simplest form, such investment chains look like Figure 2. But in practice, such chains are much more complicated than suggested by Figure 2, because beneficiaries have investments with multiple asset owners (pension funds of current and past employment; several insurance products) and multiple asset managers. In an investment chain, there is a principal-agent relationship between the parties at each link, with

implications for allocation and performance. The investment performance of the asset manager is, for example, measured against a clearly articulated market benchmark.

Figure 2 A stylised investment chain



Investment decisions are often made across multi-layered asset owner organisations supported by multiple consultants and ratings agencies. A pension fund, for example, typically has a long chain:

- Beneficiaries (pensioners and future pensioners);
- Governing board;
- CEO and/or CIO;
- Asset class heads;
- Supporting functions like finance, accounting, legal, and compliance;
- External and internal asset managers.

Delegated investment management – with multiple parties in the investment chain – causes agency problems between the asset owner or principal on the one hand and the delegated asset manager or agent responsible for making investment decisions on the other hand. Investment objectives, risk appetite, incentives, horizons and knowledge are typically not fully aligned, neither across nor within organisations. These problems are exacerbated when investing for the long term, where the payoff is distant and often highly uncertain (Neal and Warren, 2015). The human reflex is to battle such uncertainty by focusing on short-term metrics that can be measured.

Problems arise from differences in investment horizons, a tendency to evaluate and reward based on short-term results and a failure to commit. While an institutional investor might wish to pursue a long-term investment strategy for its beneficiaries, it might also use a quarterly benchmark to evaluate its asset managers internally. Next, an institutional investor

might appoint internal and external gatekeepers to benchmark them against each other. In such a setting, it is very difficult to avoid tactical investment decisions aimed at short-term investment gains. Neal and Warren (2015) propose that long-term investors should aim to create an environment in which all principals and agents along the chain of delegation are aligned, engaged and incentivised to work towards long-term outcomes and committed to investing for the long run (see Section 3.7).

2.7 A limited role for asset management

In the current setting, the role of asset management firms seems limited to providing efficiency and aggregation, especially as the belief in their alpha generating capabilities has faded. With efficient market thinking, people seem to have forgotten about their social function. However, a much bigger role for asset management looms in a paradigm aimed at long-term value creation, as its success depends on services that need to be provided by asset managers, most notably analysing companies' transition preparedness (see section 3.4).

3. Contours of a new paradigm

This section proposes the elements of a new paradigm that is geared towards long-term value creation. The backbone of such a paradigm is an active investment approach aimed at assessing companies' transition preparedness. The aim is to uncover and realise companies' social and environmental value in addition to their financial value. However, such an approach needs to be fostered in a context of proper incentives and structures. That includes the other dimensions, like pricing, allocation and performance measurement beyond near-term financials. The incorporation of ESG information into stock prices then becomes an adaptive process, dependent on the number of fundamental analysts, how they have their decisions determined by ESG factors, and the quality of their learning. The remainder of this section considers the same dimensions as in Section 2, but through the lens of their proper functioning in such a new investment paradigm.

3.1 Pricing: from efficient markets to adaptive markets

The adaptive markets hypothesis provides an alternative description of markets (Lo, 2017). Contrary to the neoclassical view that individuals maximise expected utility and have rational expectations, an evolutionary perspective makes considerably more modest claims. The degree of market efficiency depends on an evolutionary model of individuals adapting to a changing environment. Prices reflect as much information as dictated by the combination of environmental conditions and the number and nature of distinct groups of market participants, each behaving in a common manner and having a common investment horizon. For example, retail investors, institutional investors, market makers and hedge fund managers can be seen as distinct groups with differing investment horizons. If multiple groups (or the members of a single highly populous group) are competing within a single market, that market is likely to be highly efficient. If, on the other hand, a small number of groups are active in a given market, that market will be less efficient. The adaptive markets

hypothesis can explain how new risks, such as environmental risks, are not yet fully priced in, as not enough investors are examining these new risks.

Andersson, Bolton and Samama (2016) argue, for example, that there is little awareness of carbon risk among (institutional) investors and it is thus not priced by the market. Hong, Li and Xu (2016) investigate whether stock markets efficiently price risks brought on or exacerbated by climate change. Their findings support regulatory concerns that markets that are inexperienced with climate change underreact to such risks. Hong, Li and Xu (2016) thus call for corporate exposure to climate risks to be disclosed.

3.2 Allocation: from factors to investing for long-term value creation

However smart factor models and indices may be, they offer poor proxies of what we truly want: long-term value creation. Indices are an attempt to insert ESG considerations, and a moderate success in that they at least shift away capital from some of the worst industries and companies. But they do so in a very crude way. There might be potential in dynamic indices that adapt portfolios according to pre-set rules, but their effectiveness too depends on the availability of better data, for which we need better performance management (section 3.3), deeper ESG integration (section 3.4) and stronger signals from active management – the backbone of investing for long-term value creation (section 3.5).

3.3 Performance measurement: from short-term financial to long-term financial and extra-financial

3.3.1 Alternative measures of financial performance

Investors face an information problem when judging the performance of their fund manager. One way of mitigating that problem is by benchmarking fund performance, either to others in the industry or to an industry-wide index. That is an important reason why relative return benchmarking and index-tracking is commonplace (Haldane, 2014). The resulting problem is that funds are reduced to a few simple backward looking metrics, which gives incentives for taking shortcuts, without real accountability. Still, those metrics are not entirely without merit. So what to do with them, if we want to move to investing for the long term? A possible solution lies in using those same metrics in a more flexible, slightly adapted way, while being cognisant of their limitations (e.g. only measuring the financial dimension). For example, instead of measuring performance against a single benchmark, one could use:

- A range of indices instead of a single one;
- A peer group of comparable competitor funds;
- An absolute return target, possibly corrected for an absolute risk metric.

An absolute return is appealing as it is often more closely aligned with the goals of the beneficiaries, which are typically in the realm of building capital over the long run rather than beating indices. Jordà *et al.* (2017) find a long-term average return on equity of about 7 per cent in a cross-country study. An absolute return target for equities could, for example, be 5 to 7 per cent over 5 year cycles. An absolute return target is not the holy grail of

performance measurement, but simply switching perspective and putting performance in a wider context is valuable.

3.3.2 Extra-financial performance

It is crucial to also have non-financial performance measurement, as we aim for optimisation of the financial, social and environmental dimensions given risk. There are several ways to do that:

1. Performance on specific key performance indicators (KPIs);
2. Contribution to global sustainability goals.

1. Performance on specific KPIs

Investors increasingly consider company performance on specific KPIs pertaining to components of E, S and G. For example, on E, many companies now report their scope 1, 2, and 3 CO₂ emissions following to the Greenhouse Gas Protocol (WRI, 2005), and these data are fed into the Bloomberg data system available to a large part of the institutional investment community (Bloomberg, 2013). To a lesser extent, this also applies to water and waste data (Bloomberg, 2015). On S, there is increasing reporting of data points like employee attrition, percentage women on of the workforce, job creation and safety data, like lost time injury frequency rates (LTIFR, which measures the number of lost time injuries occurring in a workplace per 1 million hours worked). On G, there is, for example, the number of independent directors, gender balance and voting rules to consider.

It is great that such data is increasingly becoming available and indeed analysed. But there are also limitations to analysing the performance on specific KPIs. First, each one of the KPIs is too narrow individually. As they pertain to specific components of performance, their meaning on a standalone basis is inherently insufficient to obtain a holistic view of sustainability performance. Second, KPIs are very hard to compare across companies and industries. The 'normal' values of these KPIs are very much affected by the nature of a firm's activities, and also by where the boundaries of the firm are drawn. For example, safety issues are much more of a concern for metals and mining companies than for financial institutions. Third, the KPIs in question may not measure all that should be measured. Fourth, it is not clear if performance on a certain KPIs means a sufficient contribution to achieving a more sustainable model. In sum, it is good that these KPIs are measured and reported, but they are in their infancy and should be used with caution. Asking for better reporting should be a focus point in company engagement.

2. Contribution to global sustainability goals

As mentioned above, a problem with specific KPIs is that it is often not clear what performance is good enough. However, the 17 UN Sustainable Development Goals (SDGs), discussed in Section 1, are global sustainability goals that provide a context for assessing just that.

As the SDGs were set as late as 2015, companies have only just begun to report on them. As a result, aggregate corporate data are not yet available, making it not yet possible to measure the corporate contribution to the goals. Nevertheless, Schramade (2017) argues that, even with such poor data, it is possible for investors to get a sense of the SDGs

exposure of their portfolios by simply tagging companies and industries to the SDGs. This can be done by assessing whether a certain company or industry is likely to have a positive, neutral or negative impact on each of the SDGs or on a combination of SDGs. Schramade (2017) estimates that just under 20 per cent of companies and industries are SDG positive, just over 20 per cent of them are SDG negative and 60 per cent are SDG neutral. This method allows investors to assess how a company performs on the social and environmental dimension and to what extent it is prepared for the transition to a sustainable economy.

3.4 ESG considerations: from ESG as an overlay to assessing transition preparedness

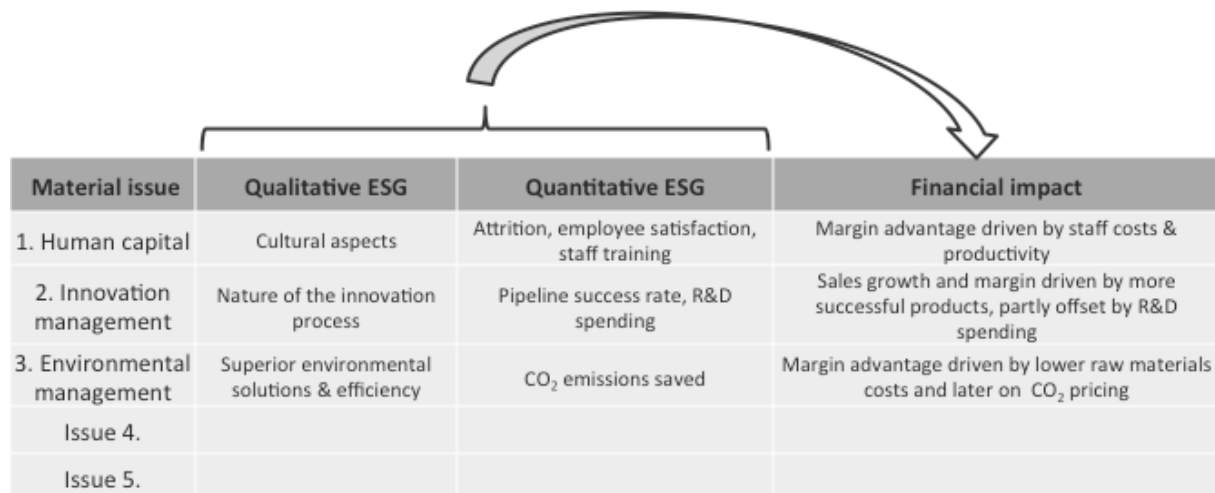
In section 3.2, we argued for active management in concentrated portfolios, aimed at assessing transition preparedness. How does that work? It requires investment analysts to investigate the materiality of ESG factors and their impact on an investee company. As the UN Sustainable Development Goals are about change, true sustainability investing should mean investing in transition. Hence, an investor needs to know how well or ill prepared an investee company is: can the company's business model be adapted to a sustainable economy? Such preparedness can be assessed at the company level and hitherto only in a diagnostic way (Schramade, 2016). This means that one needs an expert, like a fundamental analyst, to make a judgement call as to a company's preparedness. As we lack objective and scalable metrics for preparedness, it is very challenging to make an assessment at the portfolio or market level. Improved metrics and classifications are needed.

Private equity operates more or less in this way. Private equity investors look into companies and analyse future prospects (which could include transition preparedness), while taking a step away from financial markets, short-term metrics and portfolios. It means deviating much more from benchmarks, without caring about that. This is a path taken not just by sustainability investors, but also by several investors looking for better 'alpha opportunities' in less well-known companies that are not covered by several sell-side analysts. Cremers and Pareek (2016) show that investing away from the benchmark (with high active share, as they call it) combined with a patient investment strategy (with holding duration of over two years) generates on average an outperformance of over 2 per cent per year. Moreover, Van Nieuwerburgh and Veldkamp (2010) find evidence for the theory of information advantage. The investor who can first collect information systematically deviates from holding a diversified portfolio (see below).

Another implication of a renewed focus on companies and their preparedness is that the traditional tools do not suffice. Investors have to look at companies through a different lens, and go beyond traditional financial statement analysis. Inserting some ESG ratings does not measure companies' preparedness for transition, as argued above. Rather, one needs to adopt new tools and data (and often invent them) to really assess the earlier mentioned transformational challenge. This includes considering social and environmental externalities, investigating governance and behaviour, and making an educated guess on their impact on companies' strategies and business models (Schramade, 2016). That, in turn, requires an in-depth fundamental analysis of companies. Figure 3 provides a simplified illustration of such ESG analysis at the company and industry level. An analyst starts by identifying the

company’s material ESG issues, and subsequently assesses those issues in both qualitative and quantitative ways to arrive at their financial impact.

Figure 3 Financial impact of qualitative and quantitative ESG information



Note: The first step is identifying the company’s material ESG issues. The second step is assessing those issues in both qualitative and quantitative ways to arrive at their financial impact (the final step).

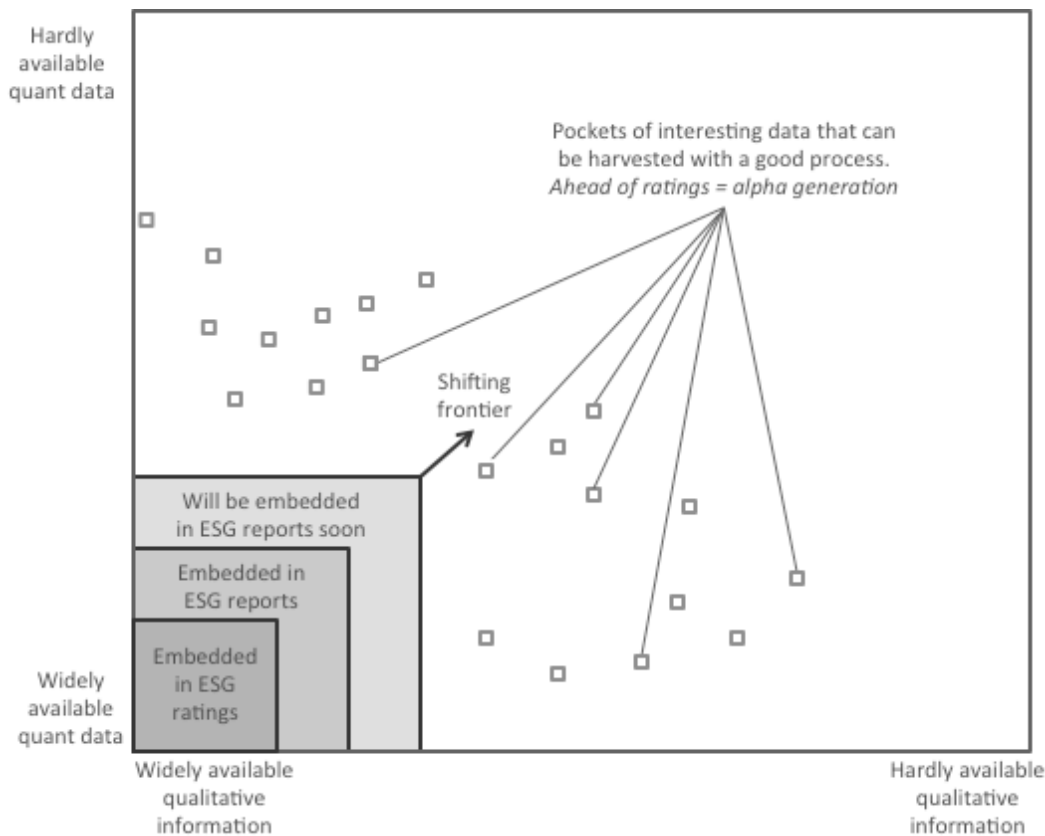
Source: NN Investment Partners.

Such transition preparedness analysis is impossible with a passive investment approach and nearly impossible with a quant approach. There are several reasons for this. First, ratings are of limited use, as argued in section 2.4 and this section. Second, there is a lack of universally relevant indicators. For quant and passive approaches to be meaningful in assessing transition preparedness, they require indicators that ‘work’ at the market level, i.e. are relevant across companies and sectors. But so far, these indicators are rare because materiality is industry or even company specific. Where quant ESG is successful, it is mostly at tracking short-term ESG momentum (Kaiser, 2017) often without a theoretical model or clear thought behind it, let alone a view on transitions. Hence, it is complementary to fundamental analysis rather than an alternative to it.

Although transition preparedness analysis is possible with an active approach, unfortunately only very few do it (Cappucci, 2017; Mooij, 2017b). Ironically, that is partly because the low relevance of ratings has made many analysts overly sceptical of ESG. Unfortunately, that scepticism does not stimulate them to dig deeper themselves. The fact that very few do transition preparedness analysis, and that quants cannot do it, is also an opportunity for very good financial performance (alpha generation in Figure 4) – just like any use of valuable additional tools and data that most other market participants do not use. This is adaptation at work. Over time, quant and even passive will get better at it, as ratings are expected to improve. Figure 4 provides a dynamic picture of the availability of qualitative and quantitative ESG data. The lack of available data is very large now, but should diminish over time in line with the adaptive markets hypothesis, with pockets of poorly used (and poorly available) data as inefficiencies and opportunities to be exploited.

ESG integration can be complemented by engagement with investee companies (see section 3.5) to reap the full benefits of ESG research. However, for that to happen, we need a change of governance and incentives in the investment chain, which is overly long and complicated.

Figure 4 The increasing availability of ESG data



3.5 Favoured approach: from passive to active management in concentrated portfolios with deep engagement

Given the above, it is clear that passive investing can only play a complementary role to active management. However, not all active management is the same, and most approaches to active management currently fall short of maximising long-term value creation.

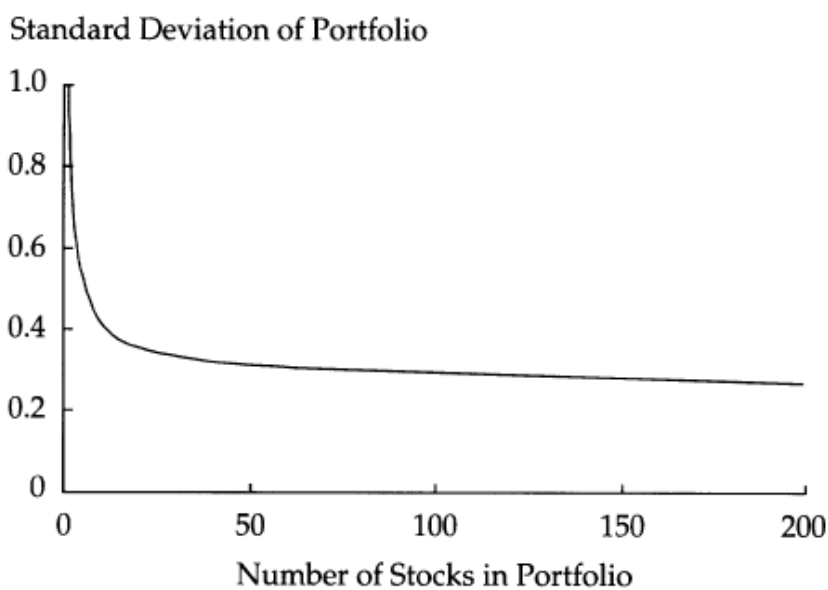
3.5.1 Concentrated portfolios

In active management, allocation not only differs in the type of analysis, but also in the concentration of portfolios. By its nature, thorough fundamental ESG analysis can be done for a limited number of companies only, resulting in more concentrated portfolios. In a large cross-country study of security holdings of institutional investors, Choi, Fedenia, Skiba and Sokolyk (2017) find that concentrated investment strategies in international markets result in excess risk-adjusted returns, conditional on an information advantage. Institutional investors concentrate holdings in their home market and selected foreign markets and industries as if they possess an information advantage. Institutional investors with higher

learning capacity (i.e. skilled investors) form more concentrated portfolios. These results suggest, in contrast to traditional asset pricing theory and in support of information advantage theory (Van Nieuwerburgh and Veldkamp, 2010)), that concentrated investment strategies can be optimal.

Statman (2004) shows that a well-diversified stock portfolio needs to include just 50 to 100 stocks to eliminate idiosyncratic or unsystematic variance of stock returns. There are smaller benefits of diversification beyond those 100 stocks, but they are exhausted when the number of stocks surpasses 300 stocks (see Figure 5). Risk management should monitor that the stocks are not overly correlated (reducing their diversification potential) and are spread over sectors and countries. Moreover, diversification gains are mainly driven by a well-balanced allocation over different asset classes, like equities, bonds and alternative investments (i.e. real estate, private equity, hedge funds, commodities and infrastructure) (see for example Jacobs, Müller and Weber, 2014). Thus, for diversification it is more important to have a concentrated portfolio in each asset class than to have a very diversified portfolio (beyond 100 securities) in a single asset class.

Figure 5 Diminishing benefits from diversification



Source: Statman (2004).

Moreover, diversification comes at a cost, especially in the supposedly low cost passive investment strategy (which charge low fees). First, diversification reduces selectiveness, which disappears almost completely in passive strategies. In passive investing, it is not possible to invest only in the sub-set of companies that are able and willing to transform towards sustainable business models. However, it is possible to build passive investments on ESG adjusted indices that exclude the really bad industries, such as coal and tobacco. This negative screening is a rather crude measure, but does steer investment away from the worst companies.

Second, the larger the number of stocks owned, the harder it becomes to have sufficient knowledge about, and really engage with, multiple companies in the portfolio. Third, on an aggregated level, widely diversified portfolios result in inadequate monitoring of corporate management teams. A free-rider problem arises as small percentage stakes mean that few investors have sufficient incentives to monitor management.

3.5.2 Engagement

Another element of an active investment approach is effective engagement with investee companies on the long-term, both behind the scenes by meeting with companies and in the annual general meeting by voting (McCahery, Sautner and Starks, 2016). Investors and companies can exchange not only funds, but also ideas on how best to put these funds to work. Even the companies that are already on a journey to become more sustainable still need help in developing the most useful and cost-effective disclosure practices. And while lots of investors want companies to provide more and better disclosure of their ESG exposures, they tend to shy away from giving explicit recommendations. So, investors need to become more active in communicating their demands and preferences for information (Higgins, White, Beller and Schapiro, 2017).

However, such engagement is costly. It requires human resources, expertise and time of the asset managers, ideally delivered in cooperation between portfolio managers, investment analysts and sustainability specialists. This is only feasible in a concentrated and actively managed portfolio: 100 stocks can be selected, followed and engaged by a small team of people who work closely together. Engagement needs to be actively managed to allow the investment case knowledge of portfolio managers and investment analysts to be integrated into the engagement.

In practice, this happens at very few financial firms. Rather, engagement is typically done at the group level for a small percentage of the holdings and by a team of engagement specialists that lack knowledge of the firms' investment cases and hence miss important points, resulting in engagement on matters that are often not material. As passive portfolios typically have thousands of stocks, the best a passive asset owner can do in practice is to vote for all those companies along the guidelines of a proxy advisor and do engagement with a few dozen companies, but typically disconnected from the investment case, materiality, and transition preparedness.

Interestingly, new evidence is emerging that financial and societal considerations are converging. In an empirical test of institutional investors' ESG strategies, Dyck, Lins, Roth and Wagner (2018) find growing importance of financial motivations behind investors' push for social and environmental performance.

3.6 Investment chains: from long & complex to short & simple

Building on our stylised investment chain in Figure 2, Figure 6 contrasts the ideal and the current investment chain. The middle column illustrates the ideal investment chain from a sustainable finance perspective. The asset owner (e.g. a pension fund or a retail client) is a long-term investor, who cares about financial, social and environmental returns. The asset owner appoints an asset manager, who invests on his or her behalf. The asset owner asks the asset manager to report on financial and ESG returns, including carbon-related financial

disclosures of the invested companies. The asset manager is also actively engaging with the company to promote sustainable business practices.

The final party in the investment chain is the company, which ideally has a board that has adopted a sustainable business model, and applies integrated reporting. Closing the circle, the integrated report provides the necessary information on financial, social and environmental values to the asset manager, who can report back to the asset owner. All parts of the chain are expected to understand the important aspects of sustainable finance and its nuances. As a result, they are not easily fooled by ratings.

Figure 6 Ideal versus actual investment chains and their components

Beneficiaries		
Asset owner	Ideally	Often
Horizon	Decades	Quarter
Maximises	$IV = FV + SV + EV$	FV
Internal structure	Simple and flat	Bureaucratic
External structure	Few asset managers and consultants	Hires many asset managers and consultants
Performance metrics	Sophisticated and nuanced	A few market metrics and perhaps ratings
Asset manager	Ideally	Often
Horizon	Years	Quarter
Maximises	$IV = FV + SV + EV$	FV
Investment approaches	<ul style="list-style-type: none"> Consistent and transparent Concentrated portfolio 	<ul style="list-style-type: none"> Do not do as they say Small holdings in large portfolios, close to the benchmark
Engagement approaches	On all holdings, based on materiality and linked to investment decisions	Proxy voting and some engagement with a few holdings, unrelated to investment decisions
Investee company	Ideally	Often
Horizon	Decades, but well balanced with short run execution	Own tenure, but blame shareholders for short-termism
Maximises	$IV = FV + SV + EV$	FV in the sense of earnings per share
Compensation	Aligned with long term value creation mandate, strategy, business model and investment decisions	Based on short term metrics such as EPS; no claw-backs
Reporting	Integrated reporting	Traditional reporting

Note: IV = Integrated Value; FV = Financial Value (F), SV = Social Value (S) and EV = Environmental Value (E).

This ideal investment chain does not exist in practice, and the right column of Figure 6 is a more realistic representation of current investment chains. First, there are multiple parties

in the chain: both within each nexus of the chain and across multiple nexuses (an asset manager may delegate the investment to another asset manager and so on). An example of the latter is an asset manager for a pension fund, who invests in a hedge fund or private equity. There may be so many delegates that monitoring becomes very hard. Second, performance metrics tend to be narrow. For example, the performance of the asset manager is often measured against a clearly articulated benchmark. Third, incentives are shorter term than desirable given fiduciary duty and investment goals. The High Level Expert Group on Sustainable Finance (2018) recommends incorporating sustainability in the fiduciary duty of institutional investors (and their asset managers) towards their beneficiaries and clients.

3.7 Role for asset management: truly performing the social function of finance

A new paradigm has serious implications for the role of asset management. The industry can add a lot of value by offering active management aimed at long-term value creation, truly performing the social function of finance. However, for that potential to be met, the industry needs to step up its efforts in terms of the depth and breadth of transition preparedness analysis, its engagement, and the concentration of its portfolios.

Summing up, investors can realise long-term investment returns by investing in and engaging with companies that are capable of adding value over the long-term, thereby having a positive effect on the value of their portfolios and on society. It may be useful to provide an example of investing for long-term value creation. Alecta, a large Swedish pension fund with assets under management of €84 billion in 2017, applies this approach in practice (Schoenmaker and Schramade, 2019). Alecta's investment strategy is focused on long-term value creation. The pension fund adopts a 15 to 20 year perspective on the asset side and applies ESG integration in its investment process.

Alecta's asset management model is based on active management of a limited number of shareholdings (slightly more than 100 listed shareholdings in 2017). This active management is done through independent in-house analysis, focusing on the absolute return and risks of investments using a 5-year average. This has significant advantages compared with index management. Each investment decision is preceded by a sustainability review of the company being considered. When Alecta invests in a company, it often becomes one of the largest shareholders with a seat on the nominating committee, which enables it to engage in a close dialogue with and influence the company in the desired direction.

Alecta's total management costs are 0.09 per cent of assets under management, of which investment management costs are 0.02 per cent. Alecta can keep its operating costs very low, because it has cut out external asset managers and consultants. Table 1 provides the asset mix and return at end-2017.

Table 1 Investments and return at Alecta (2017)

Investments	Market value (in EUR billion)	Share	Total return (in %)	
			2017	2013-2017
Shares	35.1	42%	12.6%	14.1%
Debt securities	42.6	50%	1.0%	3.2%
Real estate	6.6	8%	12.1%	12.5%
Total investments	84.3	100%	6.7%	8.2%

Source: Alecta Annual Report 2017.

4. Conclusions and achieving paradigm change

The financial system is instrumental in achieving the transition to a sustainable economy. To fulfil that societal role, investors have to move from a focus on short-term financials, towards long-term value creation. This requires doing fundamental research into the investee companies. While several financial institutions aim to move to investing for long-term value creation, traditional investment approaches are still built on the concepts of efficient markets and portfolio theory. Moreover, long and complicated investment chains exacerbate the reliance on market metrics.

Portfolio theory does not have social and environmental issues in its equations and leaves no room for a societal allocation role of finance. Its excessive diversification creates a free rider problem in the monitoring of corporate managements. ESG ratings are developed to distinguish companies' sustainability profiles, but these external ratings are very imprecise shortcuts. Investors need to analyse the investee company and its business model for real ESG integration. The incorporation of ESG information into stock prices is an adaptive process, dependent on the number of fundamental analysts.

Long and complicated investment chains mean that incentives are distorted, meaningful information is lost along the chain and that the allocation role of finance is hampered. This paper identifies the contours of an alternative investment paradigm, aimed at investing for long-term value creation. These alternative ways are available, but not yet widely used. For that to happen, we need behavioural change.

The asset management industry has a big opportunity to strengthen its added value, but achieving paradigm change is quite a challenge. Bodies such as the Principles for Responsible Investment and the EU High Level Expert Group on Sustainable Finance have made recommendations for change but they seem to underestimate the biggest challenge, which is a behavioural one. People are used to doing things the way they have always done them. And finance education at universities is not much different from what it was two decades ago. That needs to change. We need students that are trained in assessing transition preparedness; who are able to look beyond both the numbers and the fuss. That requires examples and a lot of training and repetition. We need examples of long-term value investing and sharing of best practices.

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