

**The third, systems stage of corporate governance:  
Why institutional investors need to move beyond modern portfolio theory**

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*Abstract*

This paper focuses on underlying causes for the emerging systemic emphasis among major corporate governance institutional owners. It does this by building incorporating three stages of corporate governance: structure and process as governance (stage I), broadening to include E and S factors (stage II), and stage III, a system focus. By looking at system focus this paper breaks ground by arguing one must examine the role modern portfolio theory (MPT) in the investment processes and explore how MPT impacts corporate structure, behavior and governance.

We focus on the dynamics of a portfolio, and of multiple portfolios (the market) becoming part of governance analysis and actions, challenging the idea that portfolio investment risk is limited to diversifying idiosyncratic risk through security selection assuming that will have no impact on beta. There are strong feedback loops between portfolio risk management, beta and systemic risk: they are conjoined.

Key Words:

Modern Portfolio Theory; Systemic Risk; Institutional Owners; Universal Owners; Asset Management

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Some ideas and sections of this paper are from previously papers and articles by the authors. See, Jim Hawley and Jon Lukomnik, "The Long and Short of it: Are we asking the right questions? Modern portfolio theory and time horizons", *Seattle University Law Review* (41:449), 2018, pp. 449-74; and, "The Purpose of Asset Management," Pension Insurance Company, London, UK 2018 March (forthcoming).

## ***I. Introduction***

Two recent statements, one by the world's largest pension fund and the other by the largest asset manager, are harbingers of future corporate governance challenges. Both indicate the changing scale and scope of governance.

The first is the recent initiative by the Japanese Government Pension Investment Fund (GPIF)-- (the largest public pension fund in the world, AUM +/- \$1.32 trillion) to focus on improving and enhancing beta, which it defines as the market as a whole, through corporate governance stewardship.<sup>2</sup> Hiromichi Mizuno, the fund's CIO and Executive Managing Director, noted that as a 'universal owner' (UO), the GPIF's returns (especially long-term ones), due to its sheer size, are overwhelmingly a function of the market and of the systemic risks which affect the real-world economy, rather than beating a benchmark and achieving alpha, or a skill-based return above (but sometimes below) a specific financial market benchmark<sup>3</sup> As we discussed below, we call this type of a macro market and system risk focus 'beta activism.' Indeed, unlike the vast majority of institutional investors which either try to beat the benchmark through alpha-seeking trading, or which merely accept the return of the market through a passive indexation investment strategy, GPIF sees seeking alpha as entirely irrelevant to its investment strategies while it views the dominant risk/return concepts and metrics of the market as sub-optimal.

The second statement is by BlackRock's CEO and Board Chair Larry Fink. In January 2018 letter to corporate CEO's in its vast portfolio Fink said firms must be about 'making a positive contribution to society'. Thus, in addition to financial performance socially positive, sustainable contributions are over the long-term part and parcel, indeed the *sine qua non*, of ensuring continuing financial performance. This is another way to put 'building a better beta'. As Fink puts it (emphasis in original): "...to prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society."<sup>4</sup> If both public and private firms do not have or develop this sense of purpose they will, Fink suggests, lose their license to operate from key stakeholders specifically identified as shareholders, employees, customers and communities in which they operate. Companies as part of this focus cannot 'succumb to short-term pressures' to

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<sup>2</sup> Douglas Appell, GPIF hopes to use size as way to enhance beta', *Pensions and Investments*, November 27 2017, at: <http://www.pionline.com/article/20171127/PRINT/171129920/gpif-hopes-to-use-size-as-way-to-enhance-beta?newsletter=esg-digest&issue=20171127>

<sup>3</sup> Remarks of Hiromichi Mizuno at the Investor Summit on Climate Risk, United Nations, New York, NY, on January 31, 2018.

<sup>4</sup> At: <https://www.nytimes.com/interactive/2018/01/16/business/dealbook/document-BlackRock-s-Laurence-Fink-Urges-C-E-O-s-to-Focus.html?dlbk>. BlackRock AUM as of January 2018 is somewhat over \$7 trillion.

distribute profits at the expense of investments in employee development, innovative research and development and long-term capital projects. Fink links this core focus to BlackRock's fiduciary obligations to the 'ultimate long-term investors': the clients of and investors in investment management institutions like BlackRock. The letter sees its clients as the ultimate "company's owners", for whom BlackRock sees itself as their fiduciary agent. In many ways this is a throwback to the idea of a social license to operate<sup>5</sup>, and very much a repudiation of the portion of modern investing which sees securities as bloodless numbers and collections of risks, somewhat distanced from the companies which issued them, and the red-blooded owners, employees, customers and communities which own, work for, buy and support those companies. (Additionally these ideas reject the Friedman simplistic concept that the social responsibility of the firm is to make a profit or to maximize profits. Period.)

That the world's largest asset owner and largest asset manager very recently explicitly focused their corporate governance on system-wide (market 'beta' issues) is highly significant, and represents a change from the company specific (and occasionally sector specific) focus which has been the dominant paradigm of governance activism for the past quarter century.

The purpose of this paper is to provide what the authors see as underlying causes for this emerging systemic emphasis. In addition, the contextual real-world state of asset management is explored to understand why this systemic focus is emerging at this time.

In the U.S. a quick historical taxonomy of recent corporate governance begins with the imperial CEO of the 1980's, along with the rise of greenmail and raiders and the initial organizing of institutional investors to end those practices. This led to a focus on largely structural and process issues such as such as confidential voting, board structure, election processes, and compensation through the 1990's (what Hawley and Williams have previously called stage I governance). Since about 2005 there has been the additional focus on social and environmental concerns, in addition to stage I type governance issues. This is stage II, E(nvironmental), S(ocial) and G(overnance) issues. The huge growth of the Principles for Responsible Investment is indicative of this institutional investor focus. However, institutions practicing

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<sup>5</sup> The "social license to operate" or SLO, originated in the mining sector, but has become a more generally applied concept, arguing that businesses must be seen as legitimate contributors to society. See, generally, Jason Prno and d. Scott Slocombe, "Exploring the origins of 'social license to operate' in the mining sector: Perspectives from governance and sustainability theories," *Resources Policy*, 37(3); 346-357, September 2012. See also, Jeroen Veldman, "The seprate legal entity and the architecture of the modern corporation", in Nina Boeger and Charlotte Villiers, *Shaping the Corporate Landscape*, (Oxford and Portland, Oregon, 2018, forthcoming). Veldman points out the social license to operate was central to Berle's and Means' concept of the modern corporation, a creature of law and thus socio-political in origins, and dependent on social legitimation for its continuity. (pp. 67-70).

stage 2 governance primarily focus on individual corporate situations.<sup>6</sup> What is currently emerging as stage III 'governance' incorporates the prior two, but adds a systemic focus. System focus includes both financial market issues that are system-wide (e.g. agency issues in the investment chain; changing elements of fiduciary obligations) and economy/society-wide issues (e.g. climate change, income and wealth inequality) due to their ability to impact market risk and return. That is not a trivial addition. By moving from corporate specificity to a systemic focus investors are implicitly rejecting a fundamental tenet of modern portfolio theory (MPT) as the dominant paradigm for large scale investment for more than half a century. MPT posits that beta, or market risk and return, is a given which is exogenous to investing and unaffected by investment activities. As we have argued elsewhere and as we suggest below, with concentrated institutional ownership dominating markets, the opposite has become the case. Thus, MPT specifically, and more generally investment philosophy, investment practices and strategy have become governance topics.

Focusing on systemic/beta (market wide issues), stage III governance' confronts and integrates in its analysis the dynamics of investment markets themselves. Stage III governance must examine one of, if not the, most important drivers of equity and other asset market dynamics: the underlying role MPT. That in turn has had and continues to have important impacts on corporate behavior, corporate governance and corporate structure.

One of the unintended consequences of the massive growth of huge institutional investors and the concentration of asset ownership and asset management that comes with it is that these institutional owners and managers have come to dominate markets. In turn the dynamic of investment markets themselves has changed as a result. This change has, again unintentionally, intersected with the massive impact of MPT as the explicit or implicit northern star of investment philosophy and practice. One result is that MPT no longer functions as originally intended, sometimes creating paradoxical and perverse consequences.

As capital markets have become ever more concentrated there has emerged the slow recognition that most large institutional investors have long-term, macro interests: they are essentially permanent investors, and, when equity investors, universal owners (UOs). Universal owners diverse as GPIF and BlackRock, but also including, Norges Bank, TIAA, CalPERs, CalSTRs, Caisse des Dépôts et Placements du Quebec, the Church Commissioners of England, the British Columbia Investment Management Corporation, Amundi, and AXA Investment Management, whatever

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<sup>6</sup> Hawley, James P. and Williams, Andrew T., 'Shifting Ground: Emerging global corporate-governance standards and the rise of fiduciary capitalism', *Environmental Planning A: economy and space* (37:11) November 2005, pp. 1995-2013. Also at: [https://www.researchgate.net/publication/23539498\\_Shifting\\_ground\\_Emerging\\_global\\_corporate-governance\\_standards\\_and\\_the\\_rise\\_of\\_fiduciary\\_capitalism](https://www.researchgate.net/publication/23539498_Shifting_ground_Emerging_global_corporate-governance_standards_and_the_rise_of_fiduciary_capitalism).

their differences, increasingly and explicitly have come to recognize system and market wide issues, as the primary input into investment return.<sup>7</sup> As UOs (whether they use the term or not) their returns long-term are fundamentally dependent on not 'merely' the financial markets, but on the economy as a whole, which, over time, drive and are in turn driven by those financial markets. In other words, they have lost the ability for trading to have much impact on their returns (if, in fact, they ever had such an ability). As such, what they focus on in terms of corporate governance has changed since the first Cadbury Report in the 1980's (early Stage I governance) as the then benchmark of governance standards.

The impact of contemporary corporate governance activism is entirely due to the massive growth (varying market to market, jurisdiction to jurisdiction) of non-controlling institutional owners and large asset managers *as separated from* corporate managers and/or closely linked corporate owners (that is, not including traditional keiretsu Japanese networks or German banks with significant or controlling ownership positions). Initially, they saw corporate governance as a way to protect their economic interests from rent seeking, and other expropriative activities.<sup>8</sup>

The purpose of modern corporate governance activism (and over time of ESG, and now, more broadly, responsible and sustainable investment) is the performance of firms and of investments in securities of those firms<sup>9</sup>. But parallel to these developments has been the expansion of what defines performance, from a narrow purely financial one to one that is either portfolio-wide (parallel to MPT) and/or macro economic, that is, including an accounting for externalities. A UO/integrated perspective links the real-world firm to the securities portfolio, accounting for internalized externalities in addition to traditionally a portfolio perspective captured by MPT. Thus, the dynamics of a portfolio, and of multiple portfolios (the market), is becoming part of a governance analysis. Yet even as these developments currently unfold, there has been little attempt to examine the relation between MPT to these developments. Often this relation and impact is implicit. This paper focuses on these intersections.

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<sup>7</sup> See, for example, William Burckart, Steve Lydenberg and Jessica Ziegler, "TIIPing points 2016: Summary of 50 Asset Owners' and Managers' Approaches to Investing in Global Systems," The Investment Integration Project and The Investor Responsibility Research Center Institute, November 2016. Available at: [https://irrcinstitute.org/wp-content/uploads/2016/11/TIIP-and-IRRCi\\_State-of-Industry\\_Nov-2016.pdf](https://irrcinstitute.org/wp-content/uploads/2016/11/TIIP-and-IRRCi_State-of-Industry_Nov-2016.pdf)

<sup>8</sup> Jon Lukomnik, "Why We Bother: A Primer in How Activism Enhances Returns," Fordham Journal of Corporate and Finance Law," Vol 2, No 1, 1997. Available at <https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1110&context=jcfl>

<sup>9</sup> While non-investor stakeholders, such as issue-oriented NGOs, have engaged with corporations, they have gained traction on their issues primarily when couched in terms of corporate performance impact.

## **II. What does it mean to own and manage assets?**

Another way of posing these issues is to ask: “What is the purpose of finance”.<sup>10</sup> And more specifically, “What is the purpose of asset and ownership management?”. We define asset management as the deployment, oversight and disposition of cash, securities and other financial assets by a third party on behalf of a client, the owner. To the degree that some large institutional owners manage their assets in-house, we will combine that role as an asset (self) manager. (We use the term ‘asset management’ to include both external and in-house management.) The market is huge and growing. In the UK, the asset management industry controls £5.7 trillion.<sup>11</sup> Across Europe, that number is €22.8 trillion.<sup>12</sup> PWC predicts that, worldwide, the asset management will comprise some \$111.2 trillion in 2020.<sup>13</sup>

Finance is, or normatively should be, a service function to society. Asset managers owe a duty to the person or organization that provided the funds. Specifically, the asset management and ownership industry provides risk mitigation/return generation for investors, and provides capital where it is needed by the real economy (i.e. intermediation). This immediately negates the common refrain of profit in and of itself as purpose: “Making money” is not a purpose for the asset management industry, but a necessary condition, much like breathing is required for living, but is not the purpose of life. Profit should of course not be underestimated. Life would stop without breath; profit rewards the asset management industry and allows its perpetuation. Absent profit, the industry would cease to exist and thus risk mitigation and intermediation would stop. But it is an error to confuse an essential input into self-perpetuation for the industry with the industry’s broader socio-economic purpose, which is to serve the provider of the funds managed and to allocate those funds to societally useful purposes.

In this broader social light we suggest there are two levels of risk analysis: micro (traditional risk analysis of various types) and macro (or extended) risk analysis. Additionally, we suggest that both forms of risk (micro and extended) are closely related to one of the other essential functions of financial markets: intermediation. We discuss each in turn.

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<sup>10</sup> See, David Pitt-Watson and Dr. Hari Mann, “The Purpose of Finance” (Pension Insurance Corporation, London, 2017).

<sup>11</sup> “Asset Management in the UK. 2015-2016”, The Investment Association, London, September 2016. These data exclude in-house management by asset owners, as do the sources in the follow two footnotes.

<sup>12</sup> “Asset Management in Europe,” European Fund and Management Association, May 2017.

<sup>13</sup> “Asset and Wealth Management Insights: Asset Management 2020: Taking Stock”, PWC, May 2017.

### *Risk Mitigation and Intermediation: micro and macro*

The risk mitigation/return function is neither simple to understand nor to execute. Risk is multi-dimensional, and sometimes minimizing one risk can increase another. For example permanent loss of capital is among many people's worst fears. One can easily mitigate that risk by keeping investments in cash, but that subjects one to inflation risk. It is also an opportunity cost beyond inflation risk since under most circumstances real growth is tied, for example, to the U.S. prime or U.K. Treasury rate. Therefore, ideally, to fulfill the service function of asset management would, at a minimum, require an understanding of the desires and needs of the clients (the ultimate owners or beneficiaries) so as to make a judgment about which risks to minimize and which to accept (or even maximize) for each investor/saver. To do that, the asset manager should know:

1. The aim of the client, in other words for what purpose he or she wanted the money invested. Often, that would involve understanding the particular liability the client might face in the future, such as saving for retirement or for a vacation or to buy a home, all of which imply radically different time frames, levels and types of risk tolerance, needed return, and the liquidity required.
2. There are other aspects of the clients' investment preferences, for example if they held particular religious or other convictions that might sway how the money was to be invested. While some might think that such preferences are solely the province of "socially responsible" or "ethical" investors, the reality is that every investor has different preferences. Central banks, for example, typically are adverse to credit risk (the potential of not getting paid back), while some defined benefit pension plans seek out highly profitable illiquidity investments as they have the potential to return more over time.

In reality, such bespoke asset management is the exception, not the rule. Instead, the practical manifestation involves the asset management industry creating products which have, or should have, certain risk profiles. Allocators, whether professionals such as the investment staff at a pension scheme or a financial advisor to an individual, or the savers themselves, then mix and match those products into a blend that approximates the risk/return profile they desire.

In the course of making investments, the asset management industry aggregates various sources of capital and then allocates it. If markets are working well, then that aggregated capital will finance the economy, creating real growth and the

intermediation process works. This intermediation is the second key element we discuss below.<sup>14</sup> Suffice it to say, risk and intermediation are closely linked.

### *Risk Function*

As traditionally conceived, the goal of (micro) risk mitigation is to maximize (risk adjusted) returns to the investor or beneficiary, as just discussed.

While traditional financial analysis cites hundreds of sources of risk, the goal of mainstream asset management risk mitigation is singular: Create the best monetary return possible per unit of risk (whatever the risk and however the risk is measured). Certainly, that is one important aspect of risk mitigation.

However, looking at asset management from a macro or universal owner governance perspective, risk mitigation should be multi-dimensional. In a nutshell, what we mean by this is that risk mitigation certainly needs concern itself with the financial return to the investor (micro), but also the conditions in which purely financial return may be expended (macro). Together these two elements of risk constitute *extended risk mitigation*. Elements of extended risk mitigation have been captured by stage II governance: the integration of E and S factors usually considered as material elements of corporate or sector risk (e.g. water pollution as a negative externality). Stage III governance incorporates this focus, but extends its scope into systemic risk dynamics.

Traditional financial risk assessment focuses entirely on monetary returns, which is absolutely necessary, but also absolutely insufficient. Why? Because they are disconnected from what we call conditions of life. This means the broader context in which future income flows (the results of micro risk mitigation/return generation) are expected to be expended. A retirement pension disbursement to an individual will obviously be spent in the context of the conditions in which that individual lives during his or her retirement years. Thus, if climate change or pollution impacts the health and welfare (or asset values, e.g. home ownership) of the individual, even an extremely good financial return likely will not buy the conditions of life that may have existed when savings and investment began. To put it somewhat more technically, there is not a discount value calculation or even abstract formulation of one for conditions of life. By discount value we mean the ability to normalize future cash flows so that they are equivalent to current cash flows, in principle a net present value (NPV) conceptualization. Clearly, such a discount rate, or even the conceptualization of one, is impossible for some extreme future conditions of life; were such a discount rate to be conceived, it is likely to vary widely according to the

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<sup>14</sup> Some asset managers do more than simply intermediate. For example in pensions or insurance there is often an element of risk sharing in the product; so a pension saver who lives a long life will receive a greater benefit; a life insurance subscriber who lives long will find the policy costly.

perceptions of the person whose life will be affected. Utility values are notoriously hard to calculate among different people. But the lack of mathematical precision via a NPV calculation does not negate the direct and immediate connection between future conditions life (as a risk factor) and today's financial and retirement markets.

A closely related aspect in traditional financial risk frameworks (a core proposition of MPT) is the idea that portfolio investment risk is limited to diversifying idiosyncratic risk (managing alpha) through security selection and that such actions assumed that will have no impact on beta. As we argue below, there are strong feedback loops between portfolio risk management and other investment functions on the one hand, and on systemic risk and beta, on the other. We suggest that this dynamic has developed as a function of the changed structural nature of financial markets: they are no longer typified by relatively small investment and classically competitive entities but rather dominated by large institutional managers and owners. The game has changed.

Simply because asset management is concerned with deploying, overseeing and disposing of financial assets, does not obviate it from the obligation of understanding the macro financial and economic, as well as the societal impacts of that activity. If that were so, money laundering and terrorism financing would be legal, and highly lucrative. Unless contemporary financial markets act in a way that minimizes harm to the environmental, social and financial systems and attempts to mitigate those risks, and therefore minimizes harm to future conditions of life, monetary return may well not be an adequate assurance to a reasonable retirement and retirement security. Solely considering monetary risk and return (because it can be measured easily if far from accurately), without consideration of the conditions of life under which that future return will be used (which is admittedly difficult to measure), makes the asset management industry into Oscar Wilde's definition of a cynic: A man who knows the price of everything and the value of nothing.

#### *Intermediation Function*

The second purpose-of-finance element of asset management, intermediation is, as the third Lord Rothschild once said, "Taking money from Point A, where it is, to Point B, where it is needed." In the traditional general financial context intermediation often begins with an intermediary aggregating individual investors'/savers' wealth. For example, a commercial bank uses funds from savings or deposit accounts to make new loans. Thus, the bank intermediates savers/depositors with borrowers/investors, while taking a fee for the service. In doing so a prudent bank incurs risks of various sorts that it attempts to measure, track, manage, and to a degree offset, to make the risk prudentially manageable. Similarly, in the context of asset management intermediation offers advantages to

savers/investors such as economies of scale (by pooling savers/investors together), access to technologies, and professional knowledge. These are the types of factors traditionally seen as fostering intermediation. We should note in passing that inducements to aggregate individual assets is fundamentally what intermediation does, but it is also intersects with risk mitigation as it allows for greater risk spreading than an individual or small groups of individuals could do on their own.

Yet, like risk micro mitigation, however important this level of micro intermediation, its horizons need to be extended to meet both the challenge of securing long-term investment and that of savings security (including conditions of life security).

Today's state of intermediation – with tens of agents standing between savers and their investments -- sometimes alienates savers from their rights and responsibilities as providers of capital. Minimizing that alienation, while considering conditions of life security is the concept of extended or macro intermediation. Concretely this suggests an additional focus on the efficient allocation of capital for society. It also focuses on how this translates into the ultimate productive use of these investments. For individuals, it includes strengthening capitalism's traditional bonds between providers of capital and the users of capital. This idea conforms to the goals of the GPIF and BlackRock examples in the beginning of this paper.

A critical component of what might be called the social efficiency of capital is how asset management accounts for (or too typically does not account for) the costs (or benefits) of economic externalities. A positive or negative externality is an effect on a party that did not choose to incur either the cost or benefit of a contract, process, product or service. For example, when an industrial plant discharges insufficiently treated wastewater into a river, downstream users of water feel the effects, but have not been a participant in the decision chain that caused the discharge. Such external costs can be either pecuniary or non-pecuniary, the former having a clear monetary impact (the cost of making polluted water cleaner at the moment) or non-pecuniary (the loss of enjoyment of a riverine landscape).<sup>15</sup> The economic concept of opportunity costs captures this idea of a non-pecuniary externality. For either type, the long-term impact is real. To the degree that asset markets, owners and managers ignore externality effects of their investments (that is, how the firms invested and behave) the intermediation process is less than optimal. Traditional notions of intermediation do not capture this idea.

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<sup>15</sup> Of course, externalities can also be positive. For instance, in the hypothetical suggested, increased economic activity around the industrial plant could provide money for schools, which would then increase both education levels and land values in the community.

For example, in the asset management/investment process to the extent that carbon emissions are not mitigated to the degree possible, the value of various assets (e.g. home prices; agricultural lands) decreases while some costs increase (e.g. weather related insurance coverage). There are additionally direct and indirect effects on human health and welfare (e.g. weather-related refugee migration, loss of species), or, as we term it, the conditions of life. These are examples of the close relation between risk and intermediation impact on prices, valuations and financial markets.

In order not to violate the core meaning of sustainability (“...development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>16</sup>) factoring in externalities must be an element in all asset management investment decisions and processes. In sum, extended or macro intermediation takes account not only of the financial processes, but also of the consequences of the intermediation process itself.

Extended intermediation also examines how the intermediation process itself alienates the ultimate providers of capital from the users of that capital. For example, an individual who invests in a FTSE 100 tracker (a passive index) is a partial owner of major UK companies, from the Admiral Group to WPP, and 98 other companies alphabetically in-between. Yet the intermediation process – investing through an advisor, who buys a tracker, created by an asset management firm, etc. – divorces capital from ownership.<sup>17</sup> As a result, few investors understand that such investment is actually fractional ownership. Thankfully, the intermediaries who aggregate assets, particularly in the UK, have undertaken to better fulfill the obligations of ownership. The UK’s stewardship code, and the creation of engagement teams at major asset managers such as Blackrock in the U.S., and asset owners such as USS in the U.K., as well as the focus on stewardship at the U.K. NAPF (National Association of Pension Funds) and the Association of British Insurers, as well as Mr. Fink’s letter, are welcome examples of the movement towards recognizing the extended intermediation concept. Yet the final link in the chain, from the intermediators back to the individuals whose savings are being aggregated, often is still a weak one.

### ***III. Asset Management and the impact of Modern Portfolio Theory***

The question, then, is how well does today’s asset management industry do in fulfilling the twin purposes of providing a reasonable, fully risk-adjusted return to people saving to offset long-term liabilities, while efficiently allocating capital to improve the economy and society? Or, in our terms, how well does it fulfill these functions with extended risk mitigation and in extended intermediation accounting?

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<sup>16</sup> <http://www.iisd.org/topic/sustainable-development> (accessed 08-23-17)

<sup>17</sup> This is identical to Berle’s and Means’ classical formulation of the divorce of ownership and control in the individual firm. Indeed, corporate and institutional ownership divorces intersect in a host of ways that Berle and Means did not foresee.

The answer is decidedly mixed, and inextricably linked to two factors: the business model(s) of the industry and the intellectual paradigm of Modern Portfolio Theory (MPT), which drives how much of the industry thinks about risk and risk mitigation. This leads us to a discussion of MPT as an essential context for linking investment (and its purposes), corporate behavior and structure, and corporate governance actions, especially by large institutional investors.

Before the second half of the twentieth century, investment risk analysis (and therefore risk mitigation) focused on the individual security. For example, government bonds were (and still are) considered “safe”, initial public offerings of small company stocks relying on an unproven business model were (and still should be) considered “risky”. And that was it.

Beginning in the 1950’s with the formulation of modern portfolio theory (MPT) by Harry Markowitz, risk analysis was radically transformed by focusing on the portfolio as a whole. This was a hugely important moment as it allowed for portfolio construction that could mix heterogeneous risk factors along a number of dimensions: asset class (stocks/bonds/cash, etc.), size, individual security risk profile, time horizon, etc. As well, it laid the theoretical basis for indexation, although that took a couple of decades to develop significantly. The conceptual and practical power of MPT has made itself felt massively over the decades since Markowitz initially developed its core ideas, for which he was awarded the Nobel Prize. MPT transformed the market’s understanding of risk and in so doing became far and away the dominant asset management theory.

Among the most important aspects of MPT is the idea that you can diversify idiosyncratic risk. A portfolio of multiple “risky” securities is less risky than a singular risky security, since some will zig while others zag. As long as the central tendency for the majority is positive, the zigs and zags will partially cancel out, reducing the overall risk, or, in the semantic of the asset management industry, dampening the volatility of the return pattern.

Diversification based on portfolio-wide mean-variance analysis, Markowitz’s brilliant central tenet, transformed risk mitigation from a security-level function to a portfolio level one. By using mean-variance, Markowitz was able to create an ‘efficient’ portfolio which provides a minimum variance for an expected return, while providing a maximum expected return for a given variance level (expressed as a standard deviation) along what later was named an efficient frontier. This stands in contrast to, for example, a specific portfolio recommendation.<sup>18</sup> Hence the name, Modern Portfolio Theory (MPT).

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<sup>18</sup> Markowitz was certainly not the first observer to point out that diversification *ipso facto* reduces risk, as he himself stressed. See, Harry M. Markowitz, ‘The early history of portfolio theory: 1600-1960’, *Financial Analysts Journal*, July-August 1999, pp. 5-16, at:

Mean-variance based diversification is such a fundamental concept that MPT has been widely adopted, albeit in many versions and shades of grey. It is so prevalent that it underlies present day law (e.g. the US Securities and Exchange Commission, has different rules for “diversified” and “non-diversified” mutual funds<sup>19</sup>) and portfolio volatility has widely been accepted as the *de facto* definition of risk (e.g. in the Key Investor Information Document<sup>20</sup>) and dominates the capital market vehicles (trackers/index funds are a direct outgrowth of MPT).

MPT may be dominant and brilliant. But it is limited, and its omnipresence has unwittingly contributed to a series of problems and misalignments in capital markets globally which do not mitigate systemic risk, but rather may exacerbate it.

For example, analyses of the global financial crisis of 2008-2009 noted that, though that financial system meltdown had many causes, one definitely was the relaxation of underwriting standards by a variety of banks and other credit-creating institutions, and investors’ continued purchase of the resultant loans despite that. The cause for this less-than-optimal behavior: the ability of bankers to package loans into securities (the originate to distribute model). The bankers did not know the people taking out the loans or the uses of the proceeds or, in the case of low- or no-documentation loans (so-called “liar loans”) whether the borrowers had sufficient income or assets to repay them. Instead of traditional underwriting standards, the originators – the bankers – and the buyers – the investors – decided what mattered was that the securities had hundreds or thousands of borrowers.

In theory, investors should have charged more for riskier loans. But that didn’t happen. In the years leading up to the crisis, investors, bought almost any loan securities, and did not charge much (in terms of interest rates) even for packages of loans that were later revealed to be very risky indeed. Why? The investors relied on MPT to mitigate their risk rather than old-fashioned underwriting believing that they had mitigated their portfolio risk by diversifying it. After all, they were not holding just one, or even ten or a hundred loans, but portions of thousands. However, diversification works only when the sources of risk are differentiated. In this case, reliance on diversification by investors, created a feedback loop to the financial system, which allowed underwriting standards to be relaxed, which increased systemic risk, contributing to the financial crisis.

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<https://www.cfapubs.org/doi/pdf/10.2469/faj.v55.n4.2281>. Specifically see p. 5 for Markowitz’s idea of choices based on mean-variance as compared to A.D. Roy (‘Safety first and the holding of assets’, *Econometrica*, July 1952, pp. 431-449, as cited by Markowitz, *ibid*).

<sup>19</sup> <https://www.sec.gov/rules/final/21837.txt>

<sup>20</sup> The risk rating of the fund is determined by volatility. “CESR’s guidelines on the methodology for the calculation of the synthetic risk and reward indicator in the Key Investor Information Document”, Committee of European Securities Regulators, 1 July 2010. Available at [https://www.esma.europa.eu/sites/default/files/library/2015/11/10\\_673.pdf](https://www.esma.europa.eu/sites/default/files/library/2015/11/10_673.pdf). Accessed 2 February, 2018. There are many other forms of widely used risk metrics, especially for short term risk, e.g. Value at Risk (VAR) models; the Sharpe ratio especially for individual firms.

Not all such MPT failures are as dramatic. But they may be as destructive in the long run. For example, as we shall see, the way the asset management industry has adopted MPT, crossed with the current business models of the industry, has created a tendency for equity markets to become over the last decades more and more short-term focused. This is indeed a peculiar twist on the origins in Markowitz's work, which, among other things, facilitated longer term investing, if only implicitly, through increasing investments in longer-duration assets like equities. Longer-term investment horizons are necessary in order to use mean variance metrics, albeit retrospectively rather than forward looking manner. If a risk-return trade off along an efficient frontier means anything it needs to be measured in years, not quarter to quarter.<sup>21</sup>

Or consider this dynamic which links corporate structure, strategy and behavior to governance. By enabling investors to diversify idiosyncratic risk at the portfolio, rather than security level, Markowitz fundamentally changed the risk profile of American companies, which had unintended governance implications. As MPT gained traction, the desirability of mitigating risk at the corporate level – for instance through being a conglomerate whose different businesses would thrive at different times, or through holding cash on the balance sheet as an umbrella against a financially rainy day – was severely curtailed. Investors didn't want diversification or risk dampening at the corporate level; they could do that at their portfolio management level. Indeed, the more narrowly focused a company, the more idiosyncratic, enabling portfolio diversification to work better. So investors called on companies to be “pure plays” and focus on “core competencies”. Similarly, the more leveraged the balance sheet, the more differentiation there was between the equity and the senior debt of a company, enabling asset allocation diversification, and in an extreme example, the birth of “capital arbitrage” strategies by hedge funds.

Thus, corporate governance impacts have been immense, though few have traced them back to the MPT philosophical cause. Today, investors want lean companies; hence the constant call for “returning capital” to investors through buy-backs, special dividends or other means. There are fewer conglomerates and American public companies have been buying back their own stock – in effect increasing the financial leverage of their corporate structure – at a roughly \$500 billion plus pace for the past few years, compared to a pace one fifth of that pre-2000.<sup>22</sup> Companies may today be more economically “efficient,” meaning they have more highly leveraged capital structures, but they are also less resilient. The average age of a company in the S&P 500 was nearly 60 years in the 1950s, but is only 20 years

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<sup>21</sup> See for example: <https://www.manning-napier.com/Corporate/Insights/ResearchLibrary/Article/tabid/308/Article/38/Modern-Portfolio-Theory-Expectation-vs-Reality.aspx>; and, John Y. Campbell, ‘Strategic Asset Allocation: Portfolio choice for long-term investors’, NBER Reporter, Fall 2000, at: <http://www.nber.org/reporter/fall00/campbell.html>

<sup>22</sup> “Stock Market Indicators S&P 500 Buybacks and Dividends,” Yardeni Research, February 1, 2018.

today.<sup>23</sup> While some blame rapid technological change for the rapid turnover in Corporate America, the fact that companies have moved all the way to the “efficiency” end of the efficiency/resiliency spectrum in terms of financial ability to withstand change, has made them susceptible. While financial engineering is completely “rational” when looked at through MPT’s hold on the markets, it is not quite so salutary when examined through a broader lens.

### *Institutionalization*

Individuals owning about 90% of equities characterized the equity markets Markowitz knew in the 1950s. Institutional ownership was marginal, barely 7% in 1950. Beginning the late 1960’s this began to rapidly change, so that institutions currently own about 78% of all U.S. equities (by capitalization), and more in some countries.<sup>24</sup> Today, in the U.S. market, the top 5 owners (e.g. BlackRock, State Street, Fidelity) often own upwards of 15% of equity, while the top 25 often upwards of 50% of a large cap firm. The actual statistics may vary for different markets -- UK equities, gilts, etc. -- but the same basic trends have been manifest virtually everywhere. Today’s capital markets are dominated by institutional asset managers such as investment management companies and insurance companies which aggregate and intermediate individuals’ savings into institutional pools of capital used to fund (hopefully) productive economic activity, and by institutional asset owners such as sovereign wealth funds and pension funds, which often hire those institutional management companies etc.

There are, of course, benefits to this institutionalization. Few individuals have the expertise, time or desire to manage their own money. Instead, we choose to give our assets to others whom we believe to be expert, and who have the full complement of resources –portfolio managers, analysts, risk managers, compliance officers, traders, data feeds, risk analytics, computer-driven trading programs, etc. – necessary to invest our money professionally. But agency chains come with costs. As with the divorce of ownership and control in the corporation that has been a central problematic for corporate governance, there has as well been an increasing divorce between the saver-investor and the real economy. The owner of a FTSE tracker may be a part owner of some of Britain’s most iconic companies, but few perceive it that way. The layers of intermediaries distance the citizen/saver/beneficial owner from real corporations and the real economy.

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<sup>23</sup> “Technology killing off corporate America: Average lifespan of companies under 20 years”, CNBC, 24 August 2017. Available at: <https://www.cnbc.com/2017/08/24/technology-killing-off-corporations-average-lifespan-of-company-under-20-years.html>. Accessed 2 February 2018.

<sup>24</sup> SEC Commissioner Luis A. Aguilar, speech to Georgia State University, J. Mack Robinson College of Business, April 19, 2013.:at: <https://www.sec.gov/news/speech/2013-spch041913laahtm> ; and, Charles McGrath, “80% of equity market cap held by institutions”, Pensions and Investments, April 25, 2017.

That, in turn, leaves professional, institutional asset managers in charge of capital allocation. And, as we have argued, they operate in an MPT world albeit often with tangential or without deep knowledge of MPT and its variants.

Perhaps the biggest theoretical failing of MPT is that it assumes that the non-diversifiable risk of your investments – the effects of market crises, global warming, political risk and other “systemic” issues -- affect investments, but is unaffected by those same investments.

Investors can and do affect overall market risk and return. Indeed, as we will later argue, they should seek to do so, as a way to mitigate non-diversifiable risk. However, the MPT tenet is that investing is atomistic – that is, portfolio investment takes place within the context of systemic market risk and return (beta), and is affected by it but is unable to affect it – is ingrained in the asset management industry. The irony is that more than 90% of the variation of return is explained by asset allocation (which determines much of systemic risk), not security selection or portfolio construction.<sup>25</sup> Yet, since MPT postulates that beta is a given and cannot be affected by individual portfolio managers, it follows that investors focus on what they can affect, that is, security selection and portfolio construction. From this arises what we call the *MPT paradox*: *MPT postulates that what you can affect matters less than what you can't.*

This leads to three sub-optimal real-world asset management practices, all of which have serious corporate governance implications:

- A focus on *maximizing the relative return* – how your investments do relative to the market -- rather than on absolute return – how well are investments preparing for the financial challenges faced such as saving for retirement, a home, a vacation or even just the uncertainty of the future;
- *Short-termism*; that is, a focus on quarterly or annual results, even at the expense of more robust longer-term wealth creation; and
- Largely *ignoring the ability of the capital markets to mitigate systemic risks*, such as climate change. That impoverishes in two ways: it subjects portfolios to more risk (less return) than necessary, and negatively impacts day-to-day lives now and in the future (conditions of life).

MPT's erroneous insistence that systemic risk is exogenous to portfolio investment has strongly influenced how most asset managers invest and what risk parameters and metrics they use to assess (narrower) risk. While the varieties of investment strategies are myriad, two overarching categories account for a majority of the management of public securities such as stocks and bonds. Investment managers can match the systemic risk and return available by indexing, aka “passive”

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<sup>25</sup> Gary Brinson, L. Randolph Hood and Gilbert Beebower, ‘Determinants of Portfolio Performance’, 1995, Jan-Feb, , *Financial Analysts Journal*, 133-38).

investment<sup>26</sup>. Alternatively, active managers (on the whole) largely focus on trading to try to “beat” the market, rather than improving or even maintaining the financial system, which accounts for the vast bulk of actual absolute returns. Nonetheless, since MPT thinks the market return is immutable, those managers who “beat” the market are lauded, even if their goals are somewhat misaligned to the citizen savers.

To illustrate, assume a stock portfolio that is benchmarked against the FTSE or the S&P or any of the other thousands of indices against which the industry can measure performance.<sup>27</sup> Further, let’s assume an asset manager outperforms the market, even while taking a market level of risk. While that may sound like unabated good news, the truth is that while “beating the market” is definitely beneficial for asset management companies – money flows to those active managers who outperform, even over relatively short time periods<sup>28</sup> – it may or may not be beneficial to the ultimate investor. If the benchmark is down 10%, but the investor has “only” lost 8%, that manager has materially outperformed. It has done its job, at least as that job is now defined. But the investor is still only holding 92 pence of every pound invested at the beginning of the year--further away from a goal, e.g. to fund a home, a retirement, etc. By contrast, if the benchmark is up 10% and the manager underperforms by 2%, the portfolio manager has had an awful year. Assets will flee the fund. But the investor is still has 8% more money than when he or she started, and have probably made progress towards offsetting those future liabilities. The disconnect between reward system of the asset management industry and the needs of its ultimate clients is stark. This gap is a major governance failure in the investment chain.

The focus on relative return also encourages the citizen/owner/ultimate beneficiary to regard investing in the atomistic way that MPT is practiced. Few portfolio managers who outperform that down 10% market are asked what they did to prevent the overall down market.

As one can imagine, there is pressure on active managers to distinguish themselves from their competitors. After all, money flows to funds that outperform, and asset management fees are based on the amount of assets under management. With the industry standard being to compare quarterly and annual returns, portfolio managers try to distinguish themselves quickly. They try to do this by trading stocks or bonds or other securities. Indeed, one study suggested that they do so despite the

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<sup>26</sup> Recently, there has been an increase in factor investing, often called “smart beta” or “alternative beta”. While there are material differences between factor investing and traditional passive investing based on capitalization weighted indices, for this purpose, they both accept the risk/return portfolio of their benchmarks, either the broad market indices or alternative indices designed to mix and match various specific risk exposures in the market and do not try to change those risk portfolios.

<sup>27</sup> George Watson, ‘Exponential rise in indices spells ‘death of benchmarking’, argues Bernstein’, *ETF Strategy*, at: <https://www.etfstrategy.co.uk/exponential-rise-in-indices-spells-death-of-benchmarking-argues-bernstein-48485/> In the U.S. there are currently more indices than individual traded equities.

<sup>28</sup> Op. cit. , Davis, Lukomnik and Pitt-Watson, pp 34-5

fact that “They were aware that excessive turnover was potentially harmful to their clients... (E)xcessive trading may be caused by the *don’t just sit there, do something* imperative. That imperative states that portfolio managers and traders must do something to justify their existence and compensation, even when doing nothing might be the better choice.”<sup>29</sup>

That pressure to differentiate over periods as short as 90 days or a year has resulted in a short-term focus. The World Bank found that today’s average US investor will see his or her portfolio entirely change in less than eight months. In 1976, the turnover rate was more than five years.<sup>30</sup> While there is no doubt that high frequency trading – a controversial, specialized, computerized, strategy – contributes to this short-termism, various studies which net out these trades confirm that the average investor hold their portfolios for only slightly more than a year.<sup>31</sup>

This, in turn, creates short-term pressure in the real economy. Indeed, a 2017 study by the U.S. National Association of Corporate Directors of directors surveyed management’s found that their focus on long-term strategic goals was been ‘compromised by pressure to deliver short-term results’ from activist investors.<sup>32</sup> Similar results were found in prior years. A McKinsey study, among many others, found 65% of directors and top executives saying short-term pressure have increased between 2012 and 2017. The study focused in particular on the cumulative revenue and income growth outperformance of ‘longer’ term vs. ‘shorter’ firms, using a variety of financial and economics metrics.<sup>33</sup>

There are, of course, other ways to invest other than trying to beat the market. Trackers (index funds simply try to match the risk and return of the market. At least they do so at lower cost, in general, than active management. But they are, by definition, reactive, accepting as a given whatever risks and returns the market will provide. Trackers are usually perceived as “passive” investing, because portfolio managers simply replicate the S&P or FTSE or another index, rather than actively picking stocks or bonds. Ironically, however, and most importantly contrary to what MPT implicitly postulates, being passive doesn’t mean they don’t actively affect the overall risk and return of the market.

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<sup>29</sup> Danyelle Guyatt and Jon Lukomnik, “Does Portfolio Turnover Exceed Expectations?,” *Rotman International Journal of Pension Management*, 3 no. 2 (Fall 2010)

<sup>30</sup> <https://perma.cc/Z6H6-YLSY> (accessed 02/12/2018)

<sup>31</sup> Martijn Cremers, Ankur Pareek, and Zarahrias Sautner, “Stock Duration, Analysts Recommendations and Misvaluation” 2014 at: <https://www.aeaweb.org/conference/2015/retrieve.php?pdfid=760>

<sup>32</sup> NACD, press release, November 20, 2017, at:

<https://www.nacdonline.org/AboutUs/PressRelease.cfm?ItemNumber=50393>

<sup>33</sup> ‘Measuring the Economics Impact of Short-Termism’, McKinsey Global Institute, February 2017

For instance, the popularity of tracker funds has created what Wugler calls ‘super portfolios’, the *de facto* price co-movements of numbers of stocks and portfolios as they are implicitly linked by similar investment philosophies and (MPT based) products and techniques, responding to developments in similar ways.<sup>34</sup> Large cash flows into or out of a FTSE 100 tracker will affect each component stock, even if there is no fundamental reason for that stock to move up or down, and even if the investors causing the cash flows don’t even know the names of the stocks in the FTSE. Over time, the unintended result is that MPT’s goal of an efficient portfolio is perverted, as the index fund itself becomes the justification for the index being efficient, which continues the cycle by attracting more capital.<sup>35</sup> In a sense, this turns the efficient market hypothesis--a core element in MPT --on its head, becoming less and less efficient as indexes (and ETFs) are moved not by information as the efficient market hypothesis holds, but can themselves move markets (the super portfolio effect).

Thus, one conclusion is that almost by definition super portfolios can move markets, as Sullivan and Xiong found: ““Such trading commonality then gives way to a rise in systematic fluctuations in overall demand, which, in turn, leads to a fundamental impact on the overall market and investors’ portfolios. In short, the growth in trading of passively managed equity indices corresponds to a rise in systematic market risk.”<sup>36</sup> This contradicts the core MPT idea that investing is atomistic and systemic risk is strictly external to portfolio behavior.

In sum, MPT provided the intellectual foundation for indexation but never considered the effect of its own widespread adoption, especially in the context of increasing investor concentration. This can and has had systemic effects. And those effects can go beyond the marketplace to affect individual companies’ structure, strategy and governance, an unintended consequence of the extended intermediation effect. Thus, for example, Cremers, Pareek, and Sautner; and Appel, Formley and Keim, in separate studies determined that inclusion in prominent investment indices, and the concurrent change in ownership of the companies (which is what the cash flows into the index products represents) result in both

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<sup>34</sup> Wurgler, J. 2010. ‘On the economic consequences of index-linked investing’, NBER Working Paper No.16376. Issued on September 2010.

<sup>35</sup> This should not be understood to mean that there is not concern on the part of some for system health or for various trends in the larger market, social and environmental spheres. For example, the head of the giant \$1.4 trillion Japanese Government Pension Investment Fund expressed concern about the growth, size and impact of passive investing’s impact on market efficiency. Hiromichi Mizuno, the fund’s head, was concerned about less efficient market signals (due to incomplete price discovery) would hurt real growth if and when indexation reached a tipping point, arguing that, “We are long term and a universal owner, so we need to make sure that the market will continue to be efficient.” To this end the Fund is increasing active trading compared with passive investing (James Mackintosh, ‘Streetwise’, *The Wall Street Journal* (08/18/17, B1)

<sup>36</sup> Rodney N. Sullivan and James X. Xiong “How Index Trading Increases Market Vulnerability,” *Financial Analysts Journal*, Volume 68, Number 2, 2012. Pp. 7-84

fundamental corporate governance changes such as an increase in the number of independent directors at a company, changes takeover defenses and more equal voting rights; and even in non-structural changes, such as in changes to research and development budgets.<sup>37</sup> It is worth repeating: Indexation, and therefore index impacts on the corporations included in those benchmarks, would not have existed without MPT.

These effects suggest two interesting questions. First, if passive investment can unintentionally affect the overall market's risk and return, and can even affect the constituent companies whose securities trade in the marketplace, can investors intentionally use their portfolio investments to mitigate systemic risks and therefore reduce the overall "riskiness" of the capital markets, thereby confronting extended "risk mitigation" in an innovative and powerful way. The second question is can intentionality by (especially large institutional owners) impact the structure, strategy and governance if individual firms?

To both questions we suggest they can. Empirically we observe they already are in some spheres. And normatively we suggest, arguably, they should, including as a fiduciary obligation. To reiterate: in an un-concentrated Markowitz market of decades ago, one dominated by active traders, this would not be possible. But the opposite is now the case: Market concentration creates the opportunity, and Universal Ownership creates the motive. Indeed, even non-Universal Owners, if they understand the implications of the Brinson asset allocation study, they should have the motivation to help create a "better beta".

As we have suggested elsewhere, there are four important elements in the changing structure and dynamics of capital markets which argue for a stage 3, systems-level governance focus by institutional investors.<sup>38</sup> They are:

1-MPT has become an unintended victim of its own success given the institutional ownership revolution in the last forty years;

2. Portfolio investment, whether active alpha-seeking or passive beta-matching (including factor investing), can impact systemic risk, changing beta. In other words, systemic risk (and therefore beta) is not exogenous to portfolio investment decisions and dynamics;

3. Alpha and Beta are not distinct and disjoint but intimately linked along a continuum of market recognition and acceptance.

4. MPT has focused on alpha-seeking as a way to extract value, leading to increased short-term (what Haldane has called the 'the short long')<sup>39</sup> trading activity, even though

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<sup>37</sup> Cremers, Martijin; Pareek, Ankur; Sautner, Zacharias, 'Short-term institutions, analysts recommendation and mispricing', (2017) at:

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2190437&rec=1&srcabs=2285470&alg=1&pos=8](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2190437&rec=1&srcabs=2285470&alg=1&pos=8); and, Appel, Ian; Cormley, Todd; and Keim, Donald, "Passive Investors, Not Passive Owners", at: [https://papers.ssrn.com/sol3/Papers.cfm?abstract\\_id=2475150](https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2475150)

<sup>38</sup> Hawley, James; and, Lukomnik, Jon, "The Long and Short of it: Are we asking the right questions? Modern Portfolio Theory and time horizons", *Seattle University Law Review*, (2018)

<sup>39</sup> Haldane, Andrew, "The Great Divide", speech, at: <https://www.bis.org/review/r160520b.pdf>

seeking a “better beta” might be a more impactful way to create value, both in terms of portfolio returns and the economy as a whole, and certainly over the longer term.

There is a doubly irony in MPT’s massive influence given the above four structural changes. The first is that MPT provides a very reasonable logic to justify passive indexation, while simultaneously arguing that active managers’ justification is to beat those indices, and typically on a short-term (quarterly or yearly) basis. The underlying logic for this is price discovery, a clearly essential process for all markets. Yet by maintaining an absolute *a priori* separation between idiosyncratic and systemic risk (between alpha and beta) MPT thus precludes a consideration of what we have called beta: This is a value add, and potentially a huge value add. We discuss this idea in Section IV, below.

The second irony is that variance in return is overwhelmingly explained by asset allocation not security selection. Taken together, the two ironies logically point to what managers can affect, that is alpha.

A number of well known and widely commented on phenomena result: a strong tendency to short-termism, as alpha’s fleeting success reverts the mean the rather rapidly. The focus is usually on the rate of change of specific stocks in a portfolio, rather than the market (beta) exposure over time.<sup>40</sup> Another very significant consequence of these practices is that the alpha tail tends to wag the beta dog. This is due primarily to the fact that most indexes are cap-weighted. It would seem reasonable that indexation appeals and is about long-term time horizons, focused on beta exposure, and the recent growth of indexation indeed appeals with good reason to this goal. Yet there is less here, unfortunately, than meets the eye as the only difference between index fund trading and fundamental investor trading is that the index funds trade on autopilot rather than by human or algorithmic decision-making. Capitalization weighted indices are weighted to match the sum of active, non-index, alpha-seeking market trades. Hence, ‘long-term’ passive owners and managers may own long-term, but they don’t determine or influence the capitalization of what they own. Short-term alpha seeking ends up setting parameters for passive beta tracking. Ironically, the same (but inverse) process holds for alpha seekers, as whatever is sold will be replaced by what is bought, both result in permanent exposure to beta (assuming continuing public equity exposure).<sup>41</sup>

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<sup>40</sup> <http://data.worldbank.org/indicator/CM.MKT.TRNR>. Accessed May 4, 2017. U.S. public equity turnover increased from 19.6% in 1976 to 154.8% in 2016 (which is an average holding period of less than eight months).

<sup>41</sup> See, Dichev, Ilia D., What are Stock Investors' Actual Historical Returns? Evidence from Dollar-Weighted Returns (December 2004). Available at SSRN: <https://ssrn.com/abstract=544142> or <http://dx.doi.org/10.2139/ssrn.544142>. Dichev makes the point that ‘...dollar-weighted returns are systemically lower than by-and-hold returns’.

We conclude therefore that the vast majority of all investors, active and passive, hold primarily long-only beta exposure. *Therefore what matters to them is not the average of their trades at any point of time, but the sum of their trades over time.* Yet because of our MPT mind set *we measure the wrong time frames.* We measure time frames as holding periods for individual trades rather than the duration of exposure to the market (beta). This long-term beta exposure is far more important than alpha gains (which must by definition equal alpha losses), and decline in contribution to overall return in proportion to the size of the portfolio, that is, once a fund universal ownership in scope.

This idea is akin to Haldane's suggestion that absolute-return benchmarking (liability benchmarking) is better than relative-return benchmarking.<sup>42</sup> These ideas bring us back to the need to transform financial markets to where they are most effective: making closer links with the real economy which can produce (long-term) returns which account for conditions of life circumstances.

#### ***IV. Systemic risk and beta activism: Stewardship as beta 'investment'***

From political risk to environmental risk, a review of real world events reveals a myriad of occasions when portfolio decisions and/or actions by investors designed to bolster their returns or mitigate risk had systemic effect. Often these involve using tools other than security selection or trading, such as running campaigns to change market practice. This is beta activism, designed to affect systemic risk (and opportunity). It bears similarities to some ideas of stewardship. Ideally, the entire capital market benefits from these perspectives, unlike the type of individual corporate-specific activism practiced by investors such as Carl Icahn. Those activist situations attract more attention, but, ultimately, result in more limited changes and less impact, simply due to the fact that affecting beta is so much more impactful than anything an activist investor can do in a specific corporate situation.

For example, in 2002, the CalPERS (the California Public Employees Retirement System) performed a political risk analysis of a number of emerging markets. It determined that the way Philippine law treated foreign investors created an untenable risk/reward situation. On the day CalPERS announced it was divesting its holdings, the Manila exchange dropped 3.3%. That set off an intense but under-the-radar shuttle diplomacy mission between Manila and Sacramento. The result? The Philippines changed its laws.<sup>43</sup> And, of course, the honored ancestor to such action was the coordinated divestment drive of the 1970s and 1980s designed to pressure South Africa to end Apartheid.

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<sup>42</sup> Andrew G. Haldane, "The Short Long", op. cit.

<sup>43</sup> See, for example, Los Angeles Times at: <http://articles.latimes.com/2004/apr/20/business/fi-calpers20> ; and, Marc Gunther, 'Calpers Rides again...', *Fortune*, at: [http://archive.fortune.com/magazines/fortune/fortune\\_archive/2003/12/08/355099/index.htm](http://archive.fortune.com/magazines/fortune/fortune_archive/2003/12/08/355099/index.htm)

More recently, investors were frequently commended for coming together to argue for the Paris climate accord. Investor focus on climate change as a non-diversifiable system risk continues. In December 2017, a coalition of 256 major institutions, with more than \$30 trillion in assets under management, have agreed to a five-year campaign to engage with the world's biggest carbon emitters. While that type of corporate engagement might have been a stage II (ESG) type of governance activity, it is clear that the goals of the Climate Action 100+ -- "to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures" -- are systemic, stage 3 type governance reforms.<sup>44</sup>

These are example of "beta activism", because they seek to influence not just a specific company stock, or even a group of companies, but the environmental, social and/or financial systems and, as a result, the systemic risk of the capital markets. Beta activism is the current and logical extension of earlier forms of corporate governance identified above as stages I and II, but overwhelmingly is system focused, while the prior stages are focused on a specific firm or related group of firms. This is not to suggest that the three stages are oppositional or contradictory; indeed, they can and often have fed each other.

Recent beta activism examples include Blackrock's communications with corporate boards and executives to increase long-term focus and its current social-stakeholder statement<sup>45</sup>, the New York City pension funds' efforts to change the nomination process for corporate directors at US companies<sup>46</sup>, the 2C degree investing initiative's efforts to have companies focus on climate change risk<sup>47</sup>, and the creation of stewardship codes by and/or for investors in jurisdictions around the world.<sup>48</sup>

Even certain actions by a single investor – such as encouraging adoption of a new environmental or workplace labor strategy at a single firm or a small set of firms -- can be beta activism if, as former California Public Employees' Retirement System CEO Dale Hansen once said: it 'moves the herd'. (Cattlemen move a herd of cattle forward by moving the outliers to the center thereby changing the entire herd's direction.) Beta activism can define acceptable behavior as well change what the market considers relevant and material.<sup>49</sup>

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<sup>44</sup> <http://www.climateaction100.org/>

<sup>45</sup> <https://www.blackrock.com/corporate/en-us/about-us/investment-stewardship/engagement-priorities>; <https://www.blackrock.com/corporate/en-us/about-us/investment-stewardship>

<sup>46</sup> <https://comptroller.nyc.gov/services/financial-matters/boardroom-accountability-project/overview/>

<sup>47</sup> <http://2degrees-investing.org/>

<sup>48</sup> EY, Q&A on Stewardship Codes, August 2017, available at [http://www.ey.com/Publication/vwLUAssets/ey-stewardship-codes-august-2017/\\$FILE/ey-stewardship-codes-august-2017.pdf](http://www.ey.com/Publication/vwLUAssets/ey-stewardship-codes-august-2017/$FILE/ey-stewardship-codes-august-2017.pdf).

<sup>49</sup> See Hawley blogs on materiality at: <https://blog.insight360.io/is-materiality-in-the-eye-of-the-beholder-part-i-199399441f0#.43w13n4nq>; <https://blog.insight360.io/is-materiality-in-the-eye-of-the-beholder-part-ii-199399441f0#.43w13n4nq>

Despite these efforts and others, many of which have been successful, they have been viewed as one-off situations prompted by specific issues or threats – ending Apartheid, fixing an unfair law, combatting short-termism, attacking climate change, improving corporate governance. While we understand the reason for this sequential taxonomy of such governance actions – they involve systems issues and generally involve what The Investment Integration Project calls “tools of intentionally”<sup>50</sup> rather than conforming to today’s MPT-dominated image of “investing” as a trading of securities --we believe that narrow focus on these as a sequential series of unrelated events misses a more impactful insight. They are indicative of a fundamental challenge to the dominant investing paradigm that says you either trade securities to outperform an index, or you track to index to match it, because you can’t affect the index’s risk and returns. These investors and investor coalitions have understood that investor pressure – sometimes by trading or divesting but more typically by suasion and political organizing -- can affect risk and return. And that, in turn, suggests a way for more effective extended risk mitigation: Changing the systemic risk/return of the market. What makes this so powerful is the fact that the risk and return of the overall market dwarf results achievable through trading so a “better beta” poses potential return enhancement heretofore unimaginable through trading alone.<sup>51</sup>

The problem for the asset management industry, however, is that extending risk mitigation to systemic risks benefits ultimate investors and beneficiaries while it may or may not benefit the asset management industry itself. It may even, under some circumstances, benefit the industry overall – a better performance means more assets in an industry where currently revenues depend on the amount of assets under management. But it doesn’t fit the reward system internal to asset management. It doesn’t allow firms to differentiate themselves the way trading does, even though it benefits investors, the industry, and society as a whole.

### ***V: A Better Way Forward***

There are no shortage of ideas to improve risk mitigation/return generation and intermediation in asset management. We have suggested several ourselves in this paper (and elsewhere) – decreased complexity, fee disclosure, behavioral fixes, reductions in information asymmetry.<sup>52</sup> But those are somewhat incremental, able

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[the-beholder-part-ii-57ac2843736#.q9tilbl0v](https://blog.insight360.io/esg-materiality-without-comparable-metrics-back-to-the-future-of-financial-reporting-fda6d1349c00#.hb43h6cxi); <https://blog.insight360.io/esg-materiality-without-comparable-metrics-back-to-the-future-of-financial-reporting-fda6d1349c00#.hb43h6cxi>; and, <https://blog.insight360.io/fiduciary-duty-esg-why-materiality-matters-81fe84d00912#.p9nvn34g1>.

<sup>50</sup> “TIIPing Points 2016”, William Burckhart, Steve Lydenberg, Jessica Zeigler; The Investment Integration Project and Investor Responsibility Research Center Institute, available at [https://irrcinstitute.org/wp-content/uploads/2016/11/TIIP-and-IRRCi\\_State-of-Industry\\_Nov-2016.pdf](https://irrcinstitute.org/wp-content/uploads/2016/11/TIIP-and-IRRCi_State-of-Industry_Nov-2016.pdf). Accessed 2 February 2018

<sup>51</sup> Roger G. Ibbotson, ‘The importance of asset allocation’, *Financial Analysts Journal*, 66:2, March/April 2010.

<sup>52</sup> Hawley and Lukomnik, ‘The long and short of it’, op. cit.

to be implemented within the current MPT-dominant asset management paradigm which is not to underestimate that significant

There is, in addition, a much more powerful way forward. The imperatives of extended risk mitigation and extended intermediation mean that asset management ought to *move from modern portfolio theory to modern systems theory as its dominant paradigm*. Where MPT built portfolio theory onto security selection, modern systems theory would build systems considerations onto MPT. A systems theory approach would mean that asset management would have to function at three levels – security, portfolio and systems. Put somewhat differently, a concern with system ‘health’, as the Japanese GPIF suggests, should extend governance into the realm of investment itself, linking what began as focusing on individual corporate behavior and/or corporate structural standards (e.g. board structures and processes), to mechanisms of investment markets and the systems which influence them. In effect, it is time for beta activism to be recognized as the way to carve the third – and stabilizing --leg on the security selection/portfolio management/systems risk mitigation tripod.

Moving to modern systems theory has three-fold advantages:

- 1) It has previously and is currently being used, as the CalPERS/Philippines, Climate Action 100+ and other examples demonstrate;
- 2) As the goal is beta activism and beta is multiples more impactful than trading (although of course it will, not nor should it, replace trading as such), it has the potential of material improvement in risk mitigation/return;
- 3) By affecting systems, beta activism/stage III governance would benefit all participants in the system: the beneficial owners, users of capital, the asset management industry (focused more on absolute rather than relative return), the real economy and society and stage II governance only seek to improve individual corporate performance and the returns available from the securities of those specific companies. That makes sense: When you improve the economic, social and environmental systems, you affect everyone, that is, impact real productivity. (From this angle it is similar to what Blackrock’s CEO Laurence Fink call for regarding the social responsibility of firms to society, but focusing on the investment side as a complement.)

Systems theory incorporating beta activism does not mean abandoning MPT, but building on it to add a third dimension to the security selection and portfolio creation considerations, and in the process obviously transforming MPT in its contemporary various versions. How would an asset manager do that? The key is what The Investment Integration Project (TIIP) calls “intentionality”, a focused awareness of how portfolio investment and associated activity can either mitigate

systemic risk(s) or increase it, albeit it unintentionally.<sup>53</sup> TIIP details ten tools/techniques that asset managers can use, and which some are already using, such as “solutions” which create investment products designed to impact a systemic issues (think clean tech funds to impact climate risk), “polity” or the use of voice to guide public policy around issues of systemic risk (the asset management industry was a key presence in the negotiations which led to the Paris climate accords), and “standard-setting” (as is done with the UK’s stewardship code and with listing standards around the world ). The overarching purpose of all ten “tools of intentionality” is to create a “better beta”. Remembering that the market’s risk/return has multiples more effect on savers/investors than any trading strategy, systems theory has at least as much potential to improve asset management, as did MPT in the mid-twentieth century. A hypothetical example would be if CalPERS (or any significant governance activist) developed firm level engagement strategies that draw on CalPERS’ macro crisis portfolio-wide ‘best and worse scenarios’.<sup>54</sup> Developed after the financial crisis as a general guide to early warning signals of future crises, engagement with key players (so-called SIFI institutions, systemically important financial institutions) arguably might have influenced the mis-priced risk models financial institutions were using. Such an approach would be or would have been a complement to public policy engagement that CalPERS did extensively.

Of course, traditional governance activism would continue at individual companies, but, as Laurence Fink’s comments suggest, another analytical lens would be added to the governance analyses for firms such as BlackRock. That governance lens would be, in Mr. Fink’s words, an analysis of the level of “positive contribution to society” contributed by the firm, or, in the extreme, the level of negative contribution. Given the feedback loops from “society” to capital markets, BlackRock clearly intends to reach Stage III governance.<sup>55</sup>

Effectively, that means that instead of having two dominant approaches to asset management – active management to beat the market or passive investing to match the market-- systems theory would add beta activism to improve the overall risk/return profile of the market. MPT taught investors how to diversify idiosyncratic risk; systems theory suggests how to identify and mitigate non-diversifiable risk. That would positively impact both financial and condition of life returns (Fink’s “positive contribution”).

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<sup>53</sup> William Burkart, Steve Lydenberg, Jessica Zeigler, “Tipping Points 2016: Summary of 50 Asset Owners’ and Managers’ Approaches to Investing Global Systems”, IRRIC Institute, 2016.

<sup>54</sup> CalPERS’ ‘CalPERS Trust level review, Risk Management Summary’, May 31, 2017, at: <https://www.calpers.ca.gov/docs/forms-publications/risk-management-summary-aug-2017.pdf>

<sup>55</sup> Op. cit. <sup>55</sup> <https://www.nytimes.com/interactive/2018/01/16/business/dealbook/document-BlackRock-s-Laurence-Fink-Urges-C-E-O-s-to-Focus.html?dlbk>.

Of course, trying to impact systems creates its own risk mitigation challenges. Systems are complex and unintended consequences can be severe. So traditional portfolio level risk management, based on history and scenario testing, also needs a third dimension. Here, too, there are green shoots of essential reform taking place. University of California Chief Risk Officer and best-selling author Richard Bookstaber, has begun using “agent theory” to examine what happens in crises, when systems seize up.<sup>56</sup> At its heart, agency theory understands that there are limits to mathematical models in the real world, when real world people and institutions must make decisions based on what is good for them at any particular time, and that those decisions then affect other market actors and changes the context in which those decisions are made, which..... *ad infinitum*. Agency theory is suitable to be incorporated into an asset management paradigm that understands the feedback loops between portfolio investment and the systems in which they operate. It is the antidote to the atomization that prevails in MPT.

## ***VI. Conclusion***

That asset management provides returns to savers is not disputable. Nor is its massive ability to aggregate assets and intermediate them. Indeed, from a portfolio only (not condition of life) view, it is even fairly well risk-mitigated. But could that return be improved without a commensurate increase in risk? Yes, in two ways: First the industry should undertake a set of operational reforms to improve how most investments are managed today. That could improve the financial-only, portfolio risk/return ratio. Second, changing the fundamental tenets against which the asset management industry invests – in other words, a fundamental rethink of how we manage investments so as to move from modern portfolio theory to modern systems theory -- could mainstream “beta activism,” turbocharge portfolio-level returns, improve condition-of-life returns, mitigate systemic risks and create positive externalities for society.

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<sup>56</sup> See, for example, Richard Bookstaber, “The End of Theory: Financial Crises, the Failure of Economics, and the Sweep of Human Interaction,” Princeton University Press, 2014.