Hugh Lawson, Rockefeller Brothers Fund Trustee October 5, 2016 Keynote at World Resources Institute, Sustainable Investing Forum

Good afternoon. Thank you, Andrew, for that kind introduction and for gathering such a wonderful group together for our discussions today. To get these discussions going, I would like to offer a few thoughts on how to integrate sustainability considerations into an investment portfolio. This WRI conference is an inspiring setting in which to discuss this important topic given the WRI's ground-breaking work on sustainability issues. Because sustainability can cover a wide range of topics, I will focus on the dimension that relates to climate change and a lower carbon future.

On a personal note, in some ways, I am a fairly new participant in the sustainable investing discourse. While I have spent twenty years in finance both as an investment banker and asset manager, before 2013, I had spent virtually no time on the relevance of sustainability to investing. That was until I had the opportunity to chair the investment committee of the Rockefeller Brothers Fund, an institution deeply committed to fighting climate change. As part of that fight, we wanted to rethink the relationship of our endowment to carbon, both as a matter of risk management and as an important symbolic act.

Immersing myself in how to prudently decarbonize the Fund's portfolio while maintaining investment rigor went from simply being a task I was asked to perform to a passion, so much so that I now lead Goldman Sachs Asset Management's ESG and Impact investing activities. Leaders in the investment industry tend to be both rigorous and empirically minded as are leading scientists and thinkers on sustainability. Both groups have much in common I would argue. I offer this personal story as an example of how change is happening and of how I believe we have the potential to gain the interest and support of many in the investment industry – including from those for whom sustainability does not feature prominently in their day to day work.

To do that, I would suggest we need to think about how to integrate the issue of sustainability into the efficient capital markets orthodoxy that governs most portfolios. At the same time, I do not believe we should entirely discard the important insights this theory has brought to modern portfolio management. And, importantly, I believe we need to recognize that the integration of sustainability in investing lies on a continuum for which there are few black and white answers. This integration is a large undertaking. It is on a par with the wholesale reexamination of investing that efficient capital market theory itself began over 40 years ago. So how can progress be made?

Many of you will be well versed in the effect the efficient capital market theory wrought on asset management and investor portfolios over the past four decades. In a nutshell, the theory postulates that all known information is priced into markets and that the neutral starting point for most investors is to own public securities in proportion to their relative size as measured by market capitalization in the case of stocks or debt outstanding in the case of bonds.

While many investors try to do better than this purely passive approach through various forms of active management, including through the inclusion of private asset classes, the proverbial benchmarks to beat are passive indices. While we take this for granted now, the application of the efficient capital market hypothesis did many good things for investors' portfolios — it gave investors an objective standard with which to evaluate active investment managers; it focused those active managers; it drove the cost of investing down; it ushered in an era of more robust portfolio construction, better diversification, and more effective risk management. These were all good things. But, here's what it did not do — it did not encourage investors to think about systemic risks latent in a portfolio where large permanent changes in value could be driven by future events quite different than the past. It also did not particularly encourage investors to actively engage with the companies they owned on important issues around how a company pursues its business in the context of the

broader environment. Lastly, it left no room for investors to think about how their values should and could affect the composition of their investments. In sum, it was a framework that assumed the future is well known by the market today and that future returns would look a lot like historical ones. The market told you what to own, in what proportion, and the bar for making an active investment decision was set very high. In part because it relied on historical data to verify its conclusions, the theory inherently is suspect of claims that "this time is different." This led most investors to deviate really very little from market cap based portfolios.

Now, enter sustainability. Many investors who have sustainability as a priority believe that the future has to be, and will be, fundamentally different than the past. Many go further and are taking steps to bring this future closer with urgency. This world view believes that the current state of affairs on the planet is unacceptable and therefore looking to passive indices that do not seem to anticipate the change in the world many would like to see is not a satisfying result. Investors focused on the urgency of transitioning to a more sustainable path rightly ask themselves: aren't there more forward looking ways to pick investments than largely weighting them by market cap indices? This consideration of the future poses a potentially large challenge to efficient capital market theory. How do we deal with those companies that are not adapting to a more sustainable path as guickly as we might like? Is it really the case that the effect of necessary government policy and consumer preferences are already reflected in the prices of all securities? Many investors who care deeply about sustainability would say that this cannot be the case. Some go further and point to big dislocations in markets that a passive approach failed to anticipate or protect investors from. The financial crisis and dot com bubble being two recent ones. Perhaps the need to decarbonize is another? One could go further and look at the effect of two World Wars on European stock markets as other examples.

So where does that leave us? Can both points of view coexist? My view is they can but that there is no *a priori* optimal mix – there are a range of equally plausible mixes from which an investor can choose. The first step in the integration is to take the efficient capital market hypothesis seriously, if not wholly literally. In other words, look at the efficient market hypothesis as being about risk management and a fundamental awareness around what constitutes rewarded versus unrewarded active risk. It implies a degree of rigor in the construction of portfolios and an objective evaluation of them. It also reminds an investor to make sure she is thoughtful in shifting a portfolio to adapt to an expectation that the future will be different than the past. Let me offer four principles to consider in bringing these points of view together:

First, in constructing a portfolio of investments that reinforce norms of greater sustainability, make sure the business case around deviations from a market cap based portfolio is sound. In other words, if you are going to deviate from the market cap portfolio, make sure there is an economic basis for doing so. There are strong risk management arguments for assessing a portfolio's resilience in a world where lowering carbon intensity is urgent. Do the work to think about decarbonizing scenarios.

Second, quantify the degree of difference a sustainable portfolio may have in terms of tracking error to a market-cap based alternative and make sure you are comfortable with that difference. Make sure you can bear to look different than the market for periods of time. Think about this degree of difference as a risk budget you want to spend on issues of sustainability that you hope will bear fruit. Different investors will have different tolerances for this degree of difference. It is important to think about that up front so you can stay the course, especially in periods of potential underperformance.

Third, be an engaged shareholder — if you believe a company in which you are invested could do better on issues of sustainability, let them know. Companies and business models are not static. If you want issues of sustainability to be on the minds of CEOs and boards, they need to know that these metrics matter to their shareholders.

Fourth, consider what is available to you in much less efficient, private asset markets. I believe this point is very important to building portfolios that benefit from, and reinforce, trends toward greater sustainability. By definition, most market-based equity portfolios are disproportionally allocated to the world's largest companies, about which a great deal of information is widely known. They are the focus of the efficient capital market theory. The theory holds less well in areas of the market where less or little information is known and where shares are not freely or easily tradable. This is where private-market investing comes in. Private asset portfolios tend to be much more concentrated than large public market portfolios and are highly reliant on the skill of the General Partners making the investments. These General Partners often have deep subject matter expertise in a given industry, often specializing in providing primary growth capital to smaller business. Investors who allocate to private equity therefore have chosen to embrace an asset class that by definition does not play the averages and comfortably embraces disruptive business models preparing for a future that is different than the past. In this way, private asset markets are a great match for investors focused on making an impact toward greater global sustainability. For example, on behalf of our investing clients at Goldman Sachs Asset Management, we offer our investors exposure to a wide range of private companies that emphatically advance the cause of sustainability in their business models. Let me share some examples:

- **M-Kopa** is a consumer lending company that uses a SIM-card based payment system to help low-income off-grid customers finance the purchase of solar home lighting systems. As of July 2016, M-KOPA has connected over 400,000 homes to affordable clean power. Current customers are projected to save \$300mm over the next four years and the company is estimated to have reduced CO2 emissions by 260,000 tons.
- **NEXTracker** is a designer and manufacturer of technology that enables solar panels to track the sun for utility-scale solar projects around the world. NEXTracker's technology has helped increase solar project profits for developers and system owners, and makes solar more competitive with fossil fuel energy sources. The company's technology helps avoid 1.1 million tons of CO2 emissions annually.
- **Optoro** is a cloud-based technology company that enables retailers and manufacturers nationwide to manage and sell their excess and returned inventory. Roughly 15% of all goods are either returned or become excess totaling \$500 billion annually in the U.S. and creating a costly logistical and environmental challenge. Optoro's technology has demonstrated waste reductions of up to 60% and savings in fuel-related carbon emissions of up to 31%.

In many ways, this type of private market investing is the most direct way investors can use their capital to advance sustainability. At the same time, traditional best practices in private asset portfolio construction apply just as much when putting together a private asset portfolio focused on sustainability. Investors should establish a budget for private assets based on their liquidity needs. Each position should be sized appropriately and have a well thought through business case. A degree of portfolio diversification is appropriate — no one company, industry or sustainability thesis should unduly dominate the private asset portfolio. A corollary is that patience may be required — it will take time to build a robust portfolio of private investments that advance sustainability.

So where does that leave us? A focus on sustainable investing is about both anticipating and encouraging a more sustainable future. As such, it does create a tension with more backward looking theories of investing. Both perspectives have something to offer. Together, they result in a continuum of possibility, not a binary choice between "good" sustainable portfolios and "bad" non-sustainable portfolios. Some investors will explicitly integrate sustainability considerations in small doses to a conventional portfolio. As a start, they will accept a small degree of deviation from a market cap benchmark in an attempt to make their portfolio incrementally more resilient in, and encouraging of, a lower carbon future. My guess is many will go further once they have been shown the efficacy of these small steps. Other investors will go farther at the outset and have a portfolio that is very different than market cap benchmarks — their public equity portfolio may be fully de-

carbonized and have an overweight to companies and industries that are leaders in sustainability. They may deploy a large portion of their private equity budget toward investments that seek both an investment return and a positive environmental impact. To have staying power, those that create such portfolios should understand the active decisions they have made and have a sound economic and analytical rationale for doing so. A third group of investors will start somewhere between these two approaches.

To the skeptics, I say there is room for you. Even the most ardent advocate of efficient market theory has to acknowledge systemic risks can lurk in portfolios — the leverage built up prior to the financial crisis reminded us of that. At a minimum, ask yourself is my portfolio prepared for a lower carbon world that virtually all of us now agree we need? For those who are impatient with the slow pace of change, I say put your energy and activism to good use. But don't do it by disregarding sound principles of investing. Instead, give yourself an appropriately sized sustainability risk budget. Engage with the public companies you do hold and look to private market investment opportunities to advance innovation in sustainability. In short, there is room on that continuum for virtually all investors — leaving no excuse to ignore the ways in which sustainability considerations can be integrated into all of our portfolios.