Economics has developed as a science, conveniently forgetting its roots in political philosophy. Unfortunately, that “science” is severely dated, and the functioning of the global capital markets has become separated from the real world. A simple thought experiment throws light on the theoretically correct strategies for a rational saver but leaves us with unsatisfactory answers. Neglecting the societal context of our saving activity only serves to further isolate the capital markets. Instead, a self-perpetuating system requires investors to evolve from simple allocators of capital to its steward, with far broader responsibilities. Maximizing holistic returns requires practical action on the part of responsible investors, and it stretches far beyond creating wealth simply for its own sake.

In a lecture I heard some years ago, a philosopher asserted that science tries to answer the question “how,” but philosophy tries to answer the question “why.” In looking at the corpus of work produced by academics and practitioners on finance, it seems to me that most, if not all, are trying to answer the “how” question, but almost none attempt to answer the “why” question. I think this is because finance as a discipline sees itself as an extension of economics; and economics, since the 19th-century work of economists such as Walras (1874) and later of Marshall (1890), essentially has been seen as a science, and this preoccupation with the “how” question is a result of that assumption.

**ARRESTED DEVELOPMENT**

Scientists, of course, would find the idea of a science that relies on the concept of externalities and an attempted aggregation of individuals’ often disparate behaviors and mood shifts to explain why the laws postulated by this science do not seem to work dynamically or universally somewhat baffling. Reinhocker (2007) relates a meeting between economists and scientists in the mid-1990s in Santa Fe, New Mexico. The scientists found it most fascinating that economists took a snapshot of science in the late 19th century, applied it to their discipline, then evolved this discipline with scant regard to the huge advances made in science thereafter. Economics as a discipline has therefore developed within the confines of how science saw the world at that point in time, and science has moved on. Thus, for example, economists still talk of “equilibrium”—which in 1880 was all the rage in physics—and scientists today talk of entropy. Perhaps there is also still a misreading of Adam Smith where many students of economics read The Wealth of Nations but pay less attention to Smith’s The Theory of Moral Sentiments, which contextualizes it, and so they fail to place Smith within the context of the moral philosophy of the 18th century that believed in the rationality of humans.

The object of this article is not to enter this debate. In the interest of common sense, and because how we perceive economics has a direct bearing on how we perceive financial theory, I would point out that we are all perfectly comfortable in boarding a metal tube with wings to fly because we are confident that outside the context of quantum mechanics, the laws of Newtonian physics will always apply in the same way and are never affected by externalities. However, I would venture that no one would do the same if the laws affecting flight were as ill-fitting as, and with the constantly shifting outcomes of, the laws of economics.

Common sense, therefore, tells us the laws of physics are constant, observable, and universal, and observation tells us the “laws” of economics are not. To my mind this argues that we should stop treating economics, and indeed financial theory, as a science and go back to treating it as part of political philosophy. Perhaps by re-examining the ideas of the 19th-century economist Frédéric Bastiat’s notion of the “full picture” (1850) we can begin to make sense of the failures seen in the financial markets in the context of what we can observe today.

**GLOBAL CAPITAL MARKETS SEPARATE FROM THE REAL WORLD**

The world we live in today is financed by the pool of global savings, some $75 trillion (Lay 2014, 142), which indirectly or directly controls the remainder of the global capital markets estimated at some $230 trillion (Hoogvelt 2012, 30). It is my contention that much of the dysfunction of the financial landscape today can be traced to this obsession with answering the “how” question in trying to put capital to use, and its negligence of the “why” question. The result is that as we
continue to try to fit what actually happens in the observable world to our financial and economic theories and laws, we are constantly forced into a reality that Lewis Carroll described in 1865 in Alice in Wonderland:

*If I had a world of my own, every thing would be nonsense. Nothing would be what it is because every thing would be what it isn’t. And contrariwise what is, it wouldn’t be. And what wouldn’t be, it would!*

That the current state of the financial system is somewhat irrational has been pointed to by many more learned and knowledgeable than myself. King (2016) points out the extraordinary state of banking following the 2008 crisis where the assets of the top 10 banks in the United States accounted for 60 percent of gross domestic product (GDP) and those in the United Kingdom amounted to 450 percent of GDP. In his turn, Kay (2015a) points out that the size of the world foreign exchange market (latest figures put it at $1,800 trillion) is several times the size of world exports at $16 trillion and foreign direct investment at $27 trillion. To me this suggests two facts about the financial system today. First, it is concerned with something other than economic endeavor to shape and better the conditions of all citizens; and second, there is in the mind of practitioners a separation between the financial system and the society we live in.

**A THOUGHT EXPERIMENT ABOUT RETIREMENT**

In trying to answer the “why” question in relation to the narrow confines of the global savings pool, I would like to pose (as scientists would) a thought experiment. Let us assume that the only objective of all savers is simply to maximize their wealth to ensure that they have a pot of wealth at the end of their working lives that they can then spend in retirement. Further, let us assume that savers have no concern other than accumulating sufficient funds throughout their working life to finance the years they believe they will survive in their retirements. In this case they have two possible options. One is to save a portion of their income over the length of their working lives (and let us assume that they can do this in an inflation-neutral way, perhaps by putting all their savings in gold, because we have to contend with fiat currency today). Then they would spend the accumulated total over the length of their retirement years. This straightforward scenario is simply a transfer of wealth from today, at constant prices, to the future. There is no investment involved.

The other option for savers is to try to grow their savings in an attempt to increase the final amount at the point of retirement. Rationally, according to the parameters we set out, a saver should not care how this can be achieved provided the saver abides by the laws of the land to avoid financial or legal penalty. This, in essence, is a transfer to finance of Milton Friedman’s economic dictum that the only rational objective of a commercial concern is to increase profit within the parameters of what is legal (Friedman 1962, 1982). The saver can then calculate the risk and return on various strategies to determine the optimal outcome for real returns. Logically, one of the best strategies to increase one’s savings would be to gamble in a manner that shifts the odds in the saver’s favor. One of the better ways the saver could do this would be either through a poker bet or with a top-seeded poker player. Why? Because the hit rate runs at approximately 55 percent (Levitt and Miles 2014); the venture is isolated from any externality other than cheating or an inability of the loser to pay out, and more fundamentally because this venture is only concerned with increasing financial wealth, in isolation from all else.

Another strategy, perhaps more readily understandable to the financial industry, would be to try to plug into general economic growth, whenever it occurs. Under such a scenario, the bet would be simply a two-way bet—is the economy growing or is it not? The saver places the bet if the answer is yes and takes it off if the answer is no. This is the logical reduction of the accepted wisdom among the financial academic community that strategy, or allocation, if you will, is where the majority of returns are made. Using the rationale we outlined in our thought experiment, the saver would invest only if the economy is in a growth phase and revert into inflation neutral cash when it is not. Moreover, because the majority of active managers achieve a 49-percent hit ratio, with skilled alpha managers achieving a 51-percent hit ratio (Di Mascia and Smith 2008), the bet then becomes, “If I can stack the odds of predicting future economic outcomes in my favor, I simply bet on the market rather than pick managers.” However, because the track record of financial strategists is even worse than that of active managers, this approach is still irrational compared to playing poker.

As ludicrous as this may seem, the betting logic lies at the heart of much of modern financial academic work. We even talk of investments (whether strategic or company-specific) as bets. According to this perception, an active manager represents a double bet (picking one that has a 51-percent hit ratio and picking an allocator with a 51-percent hit ratio) and a passive manager represents a single bet (is the economy going up or down?). The cop out, of course, has been that because developed economies have been growing since the end of World War II, staying in the market throughout the cycles in a passive strategy will capture the assumed long-term upside of economic growth. However, this is irrational for two reasons. First, a skilled poker player or a poker bot avoids the drawdown of contractionary cycles and thus mathematically accumulates more wealth in the long term. Second, there is an implicit assumption that the post-WWII world of continued upward trend in economic growth (which is not
provable) will continue forever, and thus enters the realm of faith, not rationality.

So, if this is the outcome of rational behavior, why is the $75 trillion of world savings not directed to a continuous giant global gaming tournament, where there is a better statistical chance of success, instead of the economy, where there is a far lower chance of success? The answer could be that there simply isn’t enough capacity in the gaming world to satisfy the demand generated by this pool, or perhaps the answer lies elsewhere.

SHAPING SOCIETY

Let us now leave our thought experiment and turn to examining the “why” question. I would like to suggest that the reason we invest our savings goes beyond the simple quest for the accumulation of wealth. The reason for such an assertion has to do with the fact that we, as citizens, shape the society we live in through our work, through our taxes (which finance public policy), and through the daily pursuit of our businesses and the way we live our lives. I would contend, therefore, that our savings form part of this open adaptive system. In other words, the $75 trillion is not separate from the economic-social fabric of our lives, but rather an intrinsic part of it. Moreover, it is a tool we should use to control it, in the same way that the taxes we pay to finance government initiatives that help shape the direction and structure of our social economy are equally part of it.

If we accept this assertion, then we arrive at two main reasons why we invest. The first is the straightforward accumulation of wealth through trying to plug into economic growth. But the second, and I would suggest equally important reason, has to do with the shaping of our social economy. We take it as given that our taxes are spent in part to safeguard, nurture, and grow our economic-social landscape. Therefore, logically, our savings also should be used for the same purpose. We invest in our economy to help it grow and to help shape it, so that in accumulating our wealth we benefit ourselves as a community of citizens and individually by improving our economic chances with the creation of new industries or the provision of cheaper goods. Equally importantly is an inter-generational concord, so that we leave the next generation a viable economic landscape in the same way those who came before us left us with an economic base we could build on. This is in fact an ancient concept described in the Hebrew (and Arabic) parable of Caesar and the old man planting fig trees. Caesar asks, “Why do you bother to plant trees you would never benefit from?” The old man answers, “Because those who came before us planted trees for us to harvest and I plant trees for the next generation to harvest.”

Their shareholders are citizens in the countries these corporations operate in, own and work for their suppliers, are employees in them, and are their customers.

SHAREHOLDER RESPONSIBILITY AND THE ECONOMIC MACHINE

The structure of the capital markets has evolved beyond what economic theory thinks it should be. The large corporations of the world no longer raise the majority of the capital they need from shareholders as they did in the 19th century (Kay 2012). However, the $69-trillion equity markets (Witkowski 2015) do have shareholders and these shares are held as part of their savings, so we have to ask ourselves, “What function do these shareholdings fulfill if they no longer fulfill the function postulated by economic theory?” It cannot be that they are simply chips in a grand casino, because the logical conclusion of that thought is it is not an efficient way of betting, as pointed out above. Furthermore, we end up in a world, as Kay (2015b) pointed out, where the C-suite has the rights of owners and not the shareholders, which starts to sound like the quote from Alice in Wonderland. This is particularly the case because these corporations, along with governments, control and shape our economic landscape. Their shareholders are citizens in the countries these corporations operate in, own and work for their suppliers, are employees in them, and are their customers.

Economically speaking, according to the accepted theory pointed out by Kay (2015b), this model dictates that savers, as shareholders of these corporations, which collectively have an enormous influence over their lives, have only a tangential relationship with them based on dividend payouts and being a proxy for a roulette wheel. Moreover, this perception ignores the fact that the power of the quoted sector goes beyond what may appear at first sight. This is because it includes the banks, which advance many of the loans to the commercial sector (the rest is often advanced by the same savers who own the shares via their bond portfolios), and many of the private equity firms that finance the non-quoted sector. The collective profits and salaries they pay out, which form most of the tax base that finances public economic expenditure. To dismiss, therefore, the function of the quoted sector because the reality does not fit within economic theory reminds one of the debate between Galileo and the church theoreticians in Berthold Brecht’s play Life of Galileo. Possibly the theory should reflect reality and not the other way around.

Because of the enormous control quoted companies have over the life of ordinary citizens who own their shares, we must look for the purpose, the “why” if you will, in something other than capital-raising, dividend payout, and capital accumulation. It seems to me that with the maturing of the capital markets, shareholding should serve a different
The function of share sense in a way that trying to place a control, maintaining these holdings in times where it is primarily self-perpetuating. The quoted sector no longer looks to equity markets as the main source to raise capital. The ownership of shares must therefore evolve so that it becomes the conduit for bringing about long-term sustainable prosperity for the entire system. If we accept, therefore, that part of the function of share-ownership is control, maintaining these holdings in times of economic contraction starts to make sense in a way that trying to place a directional bet on the economy does not.

**STEWARDSHIP AND ADVOCACY: A SOCIAL CONTEXT FOR INVESTING**

However, to accept this precept implies profound changes to the way we invest. It implies that a large part of the reason for investing in quoted companies is stewardship and that in turn brings its own set of issues. How can a disparate group of shareholders, say the members of a fund such as the California Public Employees’ Retirement System, agree on what basis they wish to direct the companies they own collectively? Some may want to ban tobacco, some carbon; some may have specific political agendas (the West Bank is a hot topic for example), etc. The answer, I think, lies in thinking beyond specific local items and concentrating instead on the big issues that so clearly affect human society as a whole. The Brexit vote and the U.S. presidential election clearly point to a disenchantedment of the majority with the way the free-market model appears to be working. Part of that is structural (globalization, artificial intelligence, etc.) and is hard to tackle outside the realm of public policy, but part of it can be tackled through stewardship (fairness—better wages, union rights, diversity, anti-slave labor clauses, governance, executive pay, etc.). In like manner, the problems that affect humanity as a whole (global warming, water shortage, food disparity) should be tackled partly through public policy and partly through stewardship (awareness of carbon footprint, encouraging energy companies to move to cleaner energy, open architecture, or shared resources for food and water technology, etc.).

This in turn would change the way we think of investment in markets. Investing in statistical or accounting factors or in high-frequency trading (HFT) would be laid bare for what it is, a bet on a roulette wheel. Although investment in beta would make sense only over the cycles if it is coupled with deep long-term stewardship, engagement, and, perhaps controversially for many activists, the end of disposal as a tool of control. If our concern is to stop carbon emissions, selling shares does not produce the desired result because the target mining company still would produce coal, relying on its index shareholders. Such a model would allow for the existence of both active and passive management. A saver would have most assets in beta strategies whose main function is control through stewardship to produce a sustainable economic landscape over the long term, and a much smaller portion in active managers. This assumes that the saver can identify active managers with high active share and skill (Cremers and Petajisto 2009), who also hold their shares over the long term, and exercise stewardship, but who can make additional gain by picking companies and industries with strong growth, perhaps due to commercial innovation or technology.

**THE SUM OF THE PARTS**

At this point, we need to go back to the 19th century and Bastiat’s dictum about the “whole picture,” or secondary and tertiary effects of investment, and his parable of a broken window (Bastiat 1850). I would like to suggest that Bastiat was grappling with investment having both a direct and observable financial effect, but also secondary and tertiary effects. If we take his concept as a broad rather than a literal one, I believe we can formulate something akin to what we at Hermes Investment Management term “holistic returns.” The idea is simple. A single investment can be looked at in a narrow sense as an initial sum put in a venture that returns a specific financial return over time, hence the idea of discounted cash flow and the capital asset pricing model as valuation models. However, this approach looks at each investment in complete isolation from its surrounding environment, which in a complex open adaptive system seems irrational. Each investment, and the actions it results in, will have a wider ripple effect, both positive and negative. This is already acknowledged in economic theory as the multiplier effect, but we tend to use it for macroeconomics rather than company-specific investment. However, as pointed to above, investors collectively end up financing or owning the whole of the economy that they live and work in, so knock-on effects that are not apparent when looking at single investments begin to have a profound cumulative effect on them in their totality.

To illustrate this point, allow me to use three examples. In the first example, the investor owns shares in company A. Company A uses perfectly legal methods to pay less tax than it should and as a result its earnings and share price go up. In a narrow sense, the investor has made an additional economic gain equivalent to that rise. However, the investor still lives in the same society in which that company operates. Tax revenues for the government are reduced by that amount. That means that government will need to either cut services or raise taxes to make up the difference. In either case, the investor loses the gain on the share by the investor’s share of the amount of additional tax or reduced service. In other words, by
looking at both sides of the ledger, we can demonstrate that such a gain was a mirage. This even applies within the context of companies operating internationally because the saving pool of the world is interconnected in our globalized capital markets.

In the second example, the saver, who is a U.K. citizen, had investments in bank shares in the 2000s. The return on equity for banks was absurdly high and for several years it looked as if the saver was making a lot of additional gain on the investment in these shares up to the point the U.K. market (FTSE 100) reached its peak at 6,732 in June 2007. Then in 2008 the global financial crisis struck. The net result was a collapse in stock market prices that resulted in eroded value of all shares (not just bank shares), the U.K. government's bail-out of the banks, lower interest rates that lowered yields for years, systemic shock, and a recession that resulted in years of lost GDP growth (the opportunity cost or broken window pane of Bastiat's theory). Today, the market is back past the high of 2007 and the saver that held on for several years it looked as if the saver was making a lot of additional gain on these shares, the U.K. government's bailout of the banks' risky behavior.

Let us now assume for the third example that the saver invests in energy shares. The saver might believe that this investment is creating personal additional economic gain, but if energy companies and indeed the rest of the economy do not make substantial changes to their carbon output, the earth will warm by more than 2.0 degrees. This will result eventually in higher tax bills related to the cost of fighting flooding, higher food bills for consumers, and economic and political disruption. By looking at both sides of the ledger, we can postulate that any such additional gains are equally a mirage, because as a citizen the saver must bear the negative effects of the investment.

INCORPORATING SECONDARY AND TERTIARY EFFECTS ON SOCIETY

One criticism that can be made of this approach is to say that although we can easily quantify the direct financial gain or loss from any investment, the secondary and tertiary costs are almost impossible to quantify, and therefore, as a qualitative overlay, they remain at best a wooly concept, at worst unprovable, and therefore a totally impractical proposition. However, Armen Papazian, an economics professor, has come up with a perfectly workable quantitative answer (Papazian and Nusseibeh 2016).

Papazian then proposes that we arrive at a valuation that looks at both sides of the ledger (he calls this Net Space/Time Value or NSTV) by combining the value of what is created and its effects on wider society (both positive and negative), arrived at with the above formula with the traditional net present value calculation of discounted cash flows thus:

**Space Value with no time:**

\[\text{Net Space Value} = -II + GSV\]

\[GSV = \text{Gross Space Value} = II + NM + NA - EC - WC\]

\[= \text{Initial Investment} \times \text{New Money} + \text{New Assets} - \text{Ecological Costs} - \text{Waste Costs}\]

\[NM = \text{New Money} = \text{Initial Investment} \times \text{Money Multiplier} = II \times m\]

\[NM = IIm\]

\[NA = \text{Inventory} \times \text{Real Estate} \times a \times \text{Technology} \times b + \text{Intellectual Property} \times c\]

\[EC = \text{Ecological Footprint of Production}\]

\[= \text{Ef} \times \text{Vcup}\]

\[WC = \text{Waste Output in Tonnes} \times \text{Cost of treatment price per tonne}\]

\[WC = \text{WO} \times CT\]

\[GSV = II(1 + m) + I = aRE + bT = cIP - (Ef \times Vcup) - (WO \times CT)\]

Papazian then proposes that we arrive at a valuation that looks at both sides of the ledger (he calls this Net Space/Time Value or NSTV) by combining the value of what is created and its effects on wider society (both positive and negative), arrived at with the above formula with the traditional net present value calculation of discounted cash flows thus:

**Net Space/Time Value:**

\[\text{NSTV} = PV + NSF\]

\[\text{Net SpaceTime Value} = \text{Net Present Value} + \text{Net Space Value}\]

\[\text{NSTV} = \sum_{t=0}^{n} \frac{CF}{(1+r)^t} - \sum_{t=0}^{n} CE(t+s) - II + \sum_{t=0}^{n} CF(t+s)\]

\[\text{CE} = \text{Cash Expenditure}\]

\[\text{CF} = \text{Cash Flow}\]
This may or may not be a perfect answer, but it clearly demonstrates how one can incorporate the idea of calculating the effects of any investment to include secondary and tertiary effects on society within the parameters of traditional financial economics. We are already beginning to do that in the realm of real estate investment. The multinational developer Lendlease created value with a multi-million-dollar development project in Sydney, not only in terms of financial gain but also in the fact that the project is net water positive, zero net waste producing, and net positive in inserting culture and open community space. Lendlease is now looking at a similar project in London. Similarly, at Hermes Investment Management we talk, not of development, when discussing our urban renewal projects in King’s Cross, but of place making. We have created value in King’s Cross by training a whole generation of locals in building skills. Furthermore, we created value for London by providing affordable housing for essential services workers (nurses, firemen, policemen); we created value for the district of King’s Cross by creating a London square with a giant fountain to provide a shared utility of public space. Therefore, our investors made a financial return and also benefited the citizens of London and the United Kingdom.

I would further like to propose that these secondary and tertiary effects are particularly pertinent to the vast majority of savers, but that their import is not grasped by the financial services community because those who work in financial services are unaware of what may be termed the law of small numbers. People who study and work in finance are comfortable with very large numbers. Asset management companies manage billions or even trillions of dollars. Individual portfolio managers manage hundreds of millions if not billions of dollars. Foreign-exchange dealers trade in billions if not trillions of dollars and financial engineers are on the lookout to create new innovative products that funnel billions of dollars. Putting the executives of asset owners to one side, the firms they work for make large margins and they are paid in the top quartile if not top decile of average earnings in their respective countries. They are educated, smart, erudite, and mathematically confident.

THE BIG PICTURE: HOLISTIC RETURNS FOR INVESTORS

But—and there is a but—most of the $75 trillion that makes up the pool of world savings that fuels the capital markets that shape our global economy and is controlled by the financial industry is owned by ordinary citizens. They are average workers with average incomes, not the wealthy capitalists of 19th-century economics, nor equivalent in earnings to what people in finance earn. We know much about them. Fifty percent are women so we must assume that issues to do with diversity are important to them. Most are employees and often work in the companies they own through their savings or are customers of these companies. Therefore, we know that working conditions, fair pay, and fair prices are also important to them. Most importantly, if they are lucky and live in the developed world they will retire with a lump sum of $300,000-500,000, which translates to about £11,000–18,000 per annum.3 At this level of income, certainly in the United Kingdom, they cannot cope financially without the additional support of government tax breaks, services, and pensions of about £4,000–6,000 per annum—that is why it is so crucial to them that the collective tax take of the country is not compromised by economic misfortune or specific company action.

Actors in the financial industry work hard for their clients and try to do the best according to the parameters of how they see the world and the financial theory they were taught. Increasing the investment pot for a saver by 10 percent was worth it from a holistic point of view. If we did not use the saver’s assets pooled with others to try to influence companies to reduce carbon emission and the price of water goes up, what use is that additional £95 per month against a water bill that grows at a higher rate than that? If food prices rise because of that, what use is that additional £95 per month for a struggling pensioner already finding it hard to get by? The truth is that social impacts, the other side of the ledger if you will, have a much more profound impact on the majority of savers whose money the financial services manages, because they earn substantially less and will retire on substantially less, so that well—meaning as the industry is, it simply fails to see the world from the perspective of the average saver whose assets it looks after.

SUMMARY

I have argued in this article that the traditional concept that the purpose of investing is only to create additional wealth is flawed when applied to the savings pool today. I argued further that such an approach reduces investment to mere gambling and removes the financial world entirely from the real world that investors live and work in. That investing has become a glorified form of gambling on the roulette wheel of the economy is amply illustrated by the trading nature of active funds and the move to index funds, factor investing, derivative instruments, HFT, etc., which are all treating the market as a directional bet. This is further illustrated by the many TV programs that report on financial markets, minute by minute, tick by tick, like a horse race. I suggested that the role of equity markets has evolved since the capital—raising period in the 19th—century and that it should be...
redefined as a method for owners to control the companies that control their destiny. I proposed that investing the $75 trillion pool of assets should have a dual purpose of stewardship as well as wealth creation and that all investments should look at both sides of the ledger for any investment for the long term. This is holistic return. It is a rational way to invest and to assess the success of our investments, and by applying it we will manage to bring back the financial world from the virtual dislocated place it occupies at present to become relevant to our lives and our future.

Saker Nusseibeh, PhD, is chief executive officer of Hermes Investment Management. He earned BA and PhD degrees from King’s College London. Contact the author at jeannise.dumas@hermes-investment.com.

ENDNOTES
2. This conclusion is based on our own calculations.
4. See endnote 4.

REFERENCES
Carroll, L. 1865. Alice in Wonderland.

——. 2015b. Shareholders Think They Own the Company—They Are Wrong. Financial Times (November 10). www.ft.com/content/bdb-1b20a-879b-11e5-90de-f44762b989b.

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