

Impact Investing

Everything we do, our consumption, or work, our investments, our private, social and professional behavior, has an impact on everything else, whether we are aware of it or not. Every investor is already an impact investor, the question is whether they are consciously doing so in a responsible way or not.

The microscopic impact investment goals are well known. How much can we reduce poverty by, how many more mouths can we feed, how many people can we keep healthy, how many minds can we educate, how can we promote racial and gender equality, how can we power the world without destroying it, how can we get more people to work and consume, how do we build an equitable society, maintain and preserve our habitat, and promote collaboration amongst all peoples.

There are macroscopic impact goals as well. To see what they are we need a clearer view of what existence is and means, and the place of sentient beings within this ecosystem. The primal essence of existence is information. The whole of existence is not only information but the processing of it to achieve progress, learning, wisdom.

Each sentient being represents consciousness which can be thought of as collections of information that are self-aware, to varying degrees. Humans occupy a high position in the ordering of consciousnesses. We can store and process more information than most other living things. Yet even human beings are subject to severe limitations in intelligence and wisdom. We are the zoological analog of neurons, or transistors. We have limited knowledge of general conditions around us, limited access to information, and limited information processing power. We are not even sure as to our greater purpose in life. We have been endowed with certain abilities, limitations and impulses. We seek fulfillment and purpose to flourish yet know not our precise purpose. We resemble transistors in a microchip. If the purpose of

the microchip or computer is to solve some macro problem, it is the purpose of the transistor to solve a part of the problem and transmit the result on to other transistors.

Humans therefore have a duty to receive information, in all its forms direct and indirect, process it, and transmit it, by our thoughts and actions. The collective action of humans in this endeavor serves the greater purpose, even if that purpose eludes the individual. We are therefore duty bound to behave rationally and collaboratively. This is hard because rationality is not well defined or unique.

If we accept that our role is the processing of information, certain macroscopic impact goals present themselves. To obtain information, we must both actively seek it as well as be open to its receipt. To process information, we must have learning. To transmit the information post processing, we must be responsible. To be efficient and effective, we must collaborate. To collaborate requires humility and a recognition that we are one of a multitude of transistors.

Obtaining information involves learning, obtaining and retaining facts and data. It requires curiosity. The quality of output is highly dependent on the quality of input so obtaining high quality information, ensuring it has sufficient content, is not contaminated, is relevant and unbiased, is important.

Processing information requires that we develop and constantly upgrade an efficient program. This involves a lifetime of continual learning. The output of this program is how we react to all external stimuli, the general conditions that surround us. Our actions form part of the input for others, perpetuating a chain of information processing that permeates all consciousnesses.

All this sounds theoretical and impractical, yet these concepts can inform a set of principles by which to invest.

Investors need to invest in knowledge and fact. One must always know what one is investing in. One needs sufficient and high-

quality information to make sound decisions. Information which is highly concentrated and multi-collinear is less informative than diverse and independent data. Information needs to be taken in context; some information exhibits different behavior under different regimes and such artefacts need to be considered in the processing of the information. Basically, this just means that one must have as much of the facts that one can get, that the facts are not simply repetitions of the same, and that the facts are taken in context. The obtaining of information has to be circumspect. Too little data and the conclusion will be unstable. Too much information risks a false sense of security surrounding conclusions. Taking information out of context also impairs the reliability of conclusions.

The best investment is in rigorous understanding. Investors need to understand how the economy functions and how businesses and assets are priced. This has its bases in economic theory, finance, and behavioral science. In addition, common sense is an oft-overlooked ingredient in the recipe. Armed with the ability to make sense of the information before them, the investor is better able to make rational decisions on what to buy or sell.

Some industries appear contrary to the well-being of humanity; should the responsible investor fund them? Tobacco, gambling, munitions, alcohol are potentially detrimental to well-being. What about high fashion which feeds vanity, or travel which has a high carbon footprint and can hurt certain habitats and communities, or pharmaceuticals which charge exorbitantly for their drugs? Is technology a bane or boon? Will robots replace or augment?

The impact of our actions may be unpredictable, their net effects indeterminate for years to come. Many impact investors demand measurable impact in short time frames. We can only guess at some of the impact our actions will have, a year or decade or a century into the future. Decision making under such uncertainty, amplified by the long time frames is difficult and humbling. Intractability may discourage action, which is itself a negative impact. Often, life presents us with tradeoffs and asks that we balance the costs

and benefits as best we can. The optimal solutions are known only far in the future. The best we can do, it to be mindful of our actions, to collect information assiduously, process it thoughtfully, and to act responsibly. If we do so, we will have as good an impact as can reasonably be expected.

Micro-goals can be pursued more specifically but even these can sometimes suffer from unintended consequences and adverse selection. Some of the UN's 17 Sustainable Development Goals are mutually incompatible in specific contexts. The cost of carbon emission reduction may be a price too high for certain less developed countries and would result in negative social and economic outcomes. Hydroelectric renewable energy displacing communities, responsible labour practices impair household income and employment, price controls in pharmaceuticals depriving R&D budgets, are examples of the complex relationships in societies.

Another issue is that measurement has its limitations. Campbell's Law states: "The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor." Goodhart's Law states: "Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes." These and the Lucas Critique are warnings that goal setting in impact investing is not easy and that sharply defined impact metrics can have unintended consequences.

These limitations and difficulties should not discourage us from investing responsibly or consciously. It means that we have to do the best we can, a vague principle but one that can guide our methods.

To invest responsibly, we should do so in an informed way, which means data collection. To collect data, we first have to know what is important to us. Investors seek to make money, so the financial rationale is the central objective. However, the investor should also determine all those other factors that are important to them.

Environment, Social and Governance factors are one classification which has made responsible investing more systematic. Conceptually, the investor should consider all the impacts that their actions can have, from the environmental, social, political, physical and economic. A mental or systematic appraisal of a course of action should consider if that action has positive or negative consequences to these factors. Sometimes it will be possible to clearly define and measure this impact, and other times, it will be difficult, and a qualitative and subjective determination will have to be made. Once all these objectives are defined, the nature of the data required to make these determinations will be better understood and the investor can proceed. Understanding the priority and tractability of the objectives also puts the data in context and improves data collection advising when precision is required and when a rough sense will do. Inappropriate prioritization of data can confound analysis as much as insufficient data.

Analysis and decision making requires understanding the underlying relationships and interactions represented by the information. The analysis should always begin with an exploratory approach rather than seeking to justify preconceptions. Even so, biases are inevitable and should be recognized so that results can be understood in context. An exploratory approach can either be structured where a theory is being tested, or it can be strongly exploratory where a theory is sought. It can be parsimonious (start narrow and widen) or it can be comprehensive (start wide and focus.)

For the responsible investor, those non-financial objectives will need to be considered. The consequences of the profit optimizing solution on the environment, society, economy and on the investor themselves, needs to be considered. It will not always be possible to have a positive impact on all factors, or indeed on the majority of them. Prioritization and judgment are important. Most important of all is that the investor is behaving conscientiously, diligently and honestly. That honesty is very important and

regards an awareness of one's own limitations and the limitations of the operating conditions.

Some principles (including some general, non-impact specific comments):

- Recognize that balance is central in decision making. Processing information under uncertainty invariably requires balance.
- Make as much money as possible, but sustainably over long horizons. Successful investors are efficient processors of information. Financial success increases capital and thus the strength of signal from such investors. If you are also a philanthropist, you can always give it away.
- Realize the trade-off between efficiency and stability.
- Have a net positive impact across environmental, social and economic goals, minimizing damage and maximizing benefit.
- Have all the relevant facts and recognize which ones are more important than others. Spurious and over-analysis reduces the informational efficiency of the system.
- Recognize that one's actions are a source of information for all agents in the system (oneself included) and avoid actions which might reduce or impair the informational efficiency of the economy.
- It is possible to bootstrap this informational process by taking actions to send information to oneself.
- Avoid over paying for assets simply because other agents are doing so.
- Avoid hoarding liquidity when the economy may require it.
- Arbitrage reduces arbitrage opportunity and thus improves information efficiency.
- Diversity of information is a good. Introducing diversity is the basis of contrarian investing. When informational diversity already exists, the benefit of adding to it is reduced.
- Crowded trades reduce informational efficiency.

- Analysis without action impairs the informational efficiency of the system.
- Emotions are a source of information, but should be processed rationally. The emotions of others can be mined if one is not similarly emotional. One's own emotions are more difficult to process given their self-referential nature.

Thus the investor may invest with positive impact, always acting with mindfulness, cognizant of known unknowns and unknown unknowns, and never acting carelessly or neglecting the greater purpose. These principles may appear to be general and lack specific impact objectives, but they encourage the efficient processing and transmission of information, which is an important macroscopic impact objective.