Impact Cubed Manifesto: Towards Sustainable Capitalism

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Foreword

"First they ignore you, then they ridicule you, then they attack you and then you win"
MAHATMA GANDHI

"You are without doubt the worst pirate I've ever heard of!" "But you have heard of me."
JACK SPARROW, PIRATES OF THE CARIBBEAN

We wrote the first "sustainability manifesto" almost ten years ago, arguing that the responsible investment industry has a significant but poorly understood role in sustainable development. At the time, the world seemed challenging but stable, and our industry seemed to have found its ways. Then everything in responsible investment changed, and nothing did.

Despite not only our but the whole of the responsible investment industry's best efforts, all the critical sustainability macro trends we observed a decade ago indicating the health of our society continue to propel us in the wrong direction. Climate is far from solved, inequality keeps growing, and the political environment and corporate behaviour seem increasingly volatile. Among the indicators we initially looked at ten years ago, some, like fossil fuel subsidies, have aggravated even more rapidly than we ever imagined. Some modest improvements, like fossil fuel companies' seemingly less aggressive green marketing, have been watered down by the tremendous and contradictory increase in lobbying spending by the same companies.

A decade ago, specific, well-understood sustainability concerns dominated our understanding of the planet. Today, however, the evolving world presents new and unprecedented challenges, including pandemics, war, the decline in

political discourse and worrying signs of extending trade barriers. All the new challenges piling up on the older, still tricky, challenges make even modest improvements seem negligible.

Going through the state of the planet and macro trends over the past decade tends to be a depressing exercise for everyone, let alone for people like us who do it professionally. These problems still seem solvable, especially for positively thinking engineers like us. But humanity, equally and continuously, still seems to lack the will to act. The only thing we can tell for sure is improving is our ability to know more precisely how fast the state of the planet is worsening.

Amid this somewhat gloomy state of affairs, and despite the responsible investment industry's blatantly obvious failure to deliver any meaningful change (to be fair, not many parts of society are delivering what the planet would need), the conditions for responsible investors have changed completely. What used to be a hobby for a few rogue individuals and even fewer institutional investors has grown to be perceived as a respectable industry. Responsible investment is being talked about, studied, taught, regulated, glorified and vilified in the most significant arenas very differently than a decade ago.

The search term "ESG" has grown tenfold in popularity in Google searches, and the academic research referring to "ESG" has tripled. EU institutions invest time debating responsible investment relevant regulation comparable to the time it takes with the more traditional themes like common agricultural policy. The International Financial Reporting Standards (IFRS) Foundation[GH2] has started to work on global standards for corporate sustainability reporting akin to financial accounts. US presidential election candidates foam about ESG being "woke" in their Trump-esque speeches.

Alongside the uplift of societal importance, ESG assets under management have surged within large institutions and smaller innovative players alike. An increasing amount of ESG-themed products are available for a wider variety of markets and channels, and their performance is more competitive and, more importantly, better understood.

Yet, at the time of writing, it seems almost fashionable to bash ESG as a failure. We firmly believe that the reports of the death of responsible investment and ESG have been greatly exaggerated. Responsible investments are not dead, or in trouble, not even in decline. The industry has matured to mainstream and, with that, it gets the attention of regulators, media, ill-willed pundits and rogue political candidates.

Twenty years ago, responsible investment professionals were a rare combination of blurry-eyed idealists and hated individuals with steel-furnitured windowless offices in the cellar right next to the internal audit department. Today, we manage trillions, conduct thousands of meetings, command executive board seats, and work with central banks and international standardisation organisations. Our professional knowledge is taught in the finest universities, creating a stepping stone for thousands of bright young people to eventually push the proverbial responsible investment envelopes even further. We frequently create content that hits the headlines in prime time on the biggest channels the world over.

The mechanics of responsible investment influence, the theory of change in other words, is exactly the same as it was a decade ago. But the tools are better, and the arena is bigger.

At Impact Cubed, we were not blurry-eyed idealists ten years ago. We were seasoned asset management professionals coming together with a simple but powerful idea that sustainable and responsible investment not

only can be done profitably, but should be done for the good of the planet. We also continue to believe that the responsible investment industry is nowhere near its potential in reaching the impact that it could have, and to be upfront honest, we don't think we as a business are still anywhere near the potential we have. There is plenty of ground to cover, but we now have a further reach and an increasingly more prominent bag of ideas to make responsible investments bigger, easier, faster – in one word, better – for everybody.

Through the ebb and flow of market cycles, we have grown Impact Cubed business to be about ten times bigger than it was ten years ago. While our client roster of large and small asset owners, asset managers, distributors and consultants in all continents might look scattered, we believe that we are united with our clients in the belief that responsible investing presents a clear opportunity and compelling necessity. We are proud that we have managed to grab the attention of like-minded organisations and individuals. We are in an excellent position to repeat the growth for the next decade as the industry inevitably keeps growing and maturing, and with that, we perceive a wonderful opportunity to introduce better tools and techniques to bigger audiences to eventually make every investment decision exponentially better, but also to help the planet to the extent it deserves.

In other words, this is not the end, this is the beginning. With this decennial update of a white paper we internally dubbed the "sustainability manifesto", we hereby declare the next decade to be the decade of responsible investing, combining risk-adjusted returns with maximised societal importance, and announce ourselves to be both honoured and privileged to continue to be part of it.

Introduction

The signs are overwhelming: we are rapidly depleting the Earth's capacity to support life as we know it. The increasingly extreme effects of climate change, rising pollution-related illnesses and rapidly diminishing natural resources are all signs that we have been running on environmental credit for too long. While we have been able to overspend our means temporarily, the sustenance of future generations requires an end to the cycle.

Humans have undoubtedly applied various innovations to local environmental challenges and "tragedies of the commons" in the past. Think of overgrazing of public lands or the sanitation challenges of early urban development. However, the effects of human-related environmental degradation are now so widespread[1] that they require a radical shift in how we relate to the Earth's natural systems. For too long, we have viewed ourselves as separate from the rest of the animal kingdom and nature. Our enlightened long-term self-interest impels us to redesign our relationship with the rest of nature. This kind of shift is not unprecedented: just as our moral understanding of owning fellow humans (i.e. slavery) went through a transformation in the early and mid-nineteenth century,[2] our understanding of our effect on the climate and the survival of other species – not to mention our own – is also changing.

Currently, the closest thing to a global consensus on our environmental and societal problems is the United Nations' ratification of the Sustainable Development Goals for 2030 (SDG). The September 2015 agreement, "Transforming our world: The 2030 Agenda for Sustainable Development", sets out an ambitious, well-defined and measurable agenda of 17 goals with 169 quantifiable targets.[3]

While the SDGs represent laudable global vision, goal-setting and economic growth alone will not achieve the changes we need to realise the SDGs fully. We need more robust global governance structures, such as binding climate treaties, and stringent supporting mechanisms, such as education, health, clean water and waste treatment, that promote human well-being while pursuing economic progress.[4]

In all respects, the global multinational corporation plays a key role. Corporations are created –and mandated – to "maximise shareholder value". Unfortunately, this has been the pursuit regardless of their impact on ecosystems or societies. A corporation's net present value calculation[ii] rarely considers the consumption of finite resources and waste emissions.[5] Today's multinational corporations (MNCs) dominate and influence the global economy – and the Earth's natural systems – through markets, employment and the supply chain, as well as directly or indirectly through communities and political systems. Any attempt to forge sustainable economic growth must involve the corporation.

An effective means to influence corporations' behaviour – and thus their impact on the environment – is by controlling their access to capital. All corporate activity, including innovation, product development, service delivery, productive investment, expansion, merger and acquisition, depends on capital. Every corporation's strategic decision relies on the well-oiled gears of financial fuel. And who controls the tap?

The great majority of today's financial system allocates capital with little to no regard for the environment or long-term benefits to society. The "responsible investment" (RI) community

community is an exception. The RI community can collectively influence the financial system by decisively influencing corporations' access to capital towards sustainable development. RI is rapidly gaining critical mass, as witnessed by the growth of United Nations Principles for Responsible Investment (UN PRI) signatories. However, the combined effect of the RI investors continues to be minor, and tools and technologies related to sustainable and responsible investing are still developing, increasingly under pressure from regulators.

At Impact Cubed, we are dedicated to driving the growth of the responsible investing community, and magnifying our impact by creating a more sustainable financial system. This document describes Impact Cubed's understanding of sustainable development, our intended work towards a sustainable financial system, and our role within that system. This manifesto contains four sections covering:

- a brief discussion of the state of the planet
- the role of the multinational corporation
- the three levers of change available to each of us
- Impact Cubed's commitments as an agent of change.

The state of the planet

The quality of human life has prospered beyond recognition during the past seven decades. Life expectancy at birth in 1950 was 46; today, it is above 72.[6] The proportion of the world's population living in absolute poverty has fallen from nearly 60% in 1950 to less than 10% today. During the same time, globally measured economic activity increased 13-fold. None of this has been even remotely experienced before. At the same time, plenty of consequences, perhaps unintentional, must be understood in order for well-being and prosperity to continue.

In assessing the state of the planet, we group our thinking into three areas: issues related to environmental externalities, excessive inequality and the transparency of information. These can, of course, be extended to other, more specific, areas such as gender and racial inequality, but we've chosen to leave these for another essay.

Environmental degradation

Current forms of capitalism fail to tax corporations for the negative externalities they create. While we'd like to believe that all of us will make the right personal choices to bring about a sustainable world, most of us need a nudge, and the easiest nudge is for the relative prices of goods and services to reflect their true cost, not just the costs the manufacturer couldn't externalise. We believe that if we correctly price climate change, biodiversity loss and the impacts on local communities, capitalism can solve, rather than create, many of the complex issues we are facing. A popular example is a carbon tax where the "tax" to omit carbon is roughly the cost of offsetting all the (social) costs of emitting carbon. While the exact price is widely debated, we can be sure of one thing – zero is not the correct price! Pricing is no simple task, but it is not impossible. Indeed, to achieve approximately correct prices is better than being precisely wrong.

Consider ecosystem services, the processes by which the environment provides resources used by humans, such as clean air, water, food and materials. Establishing the economic value of ecosystem services is laborious due to the many assumptions and estimates involved, and while global estimates expressed in monetary terms do not signify commoditisation or privatisation, they help highlight the magnitude and comparability of ecosystem services.

For example, in 2011, Costanza et al. [GH1] estimated the total global value of ecosystem services to be $125 trillion annually.[7] More importantly, the authors estimated losses to ecosystem services at between $4.3 trillion and $20.2 trillion a year from 1997 to 2011. More recently, World Economic Forum estimates suggest that around $44 trillion of global economic value generation – more than half of nominal global GDP in 2019 – is moderately or highly dependent on natural assets and their ecosystem services.[8] Whatever the exact numbers might be, this loss to our natural capital is a "tragedy of the commons" of our time.

Excessive inequality

Income and wealth inequality are characteristic of market-based economies. The promise of enjoying the benefits from one's efforts has always been a powerful incentive to invest in new ideas and to accept risk as part of any

investment. Thomas Piketty famously demonstrated how income and wealth gaps have widened since the 1970s.[9] He further argued that if the rate of return on wealth continues to exceed the economic growth rate, wealth, and by extension income, will continue to become concentrated.

This excessive inequality has subtle but far-reaching consequences. High levels of inequality of opportunity discourage skills accumulation, choke economic and social mobility and human development, and, consequently, depress economic growth.[10] A large gap between rich and poor people leads to higher mortality through the breakdown of social cohesion. A marked increase in the residential concentration of poverty and affluence has accompanied the recent surge in income inequality in many countries.[11]

Inequality is a complex concept and is difficult to measure. Excessive inequality can erode social cohesion, lead to political polarisation and lower economic growth.[12]

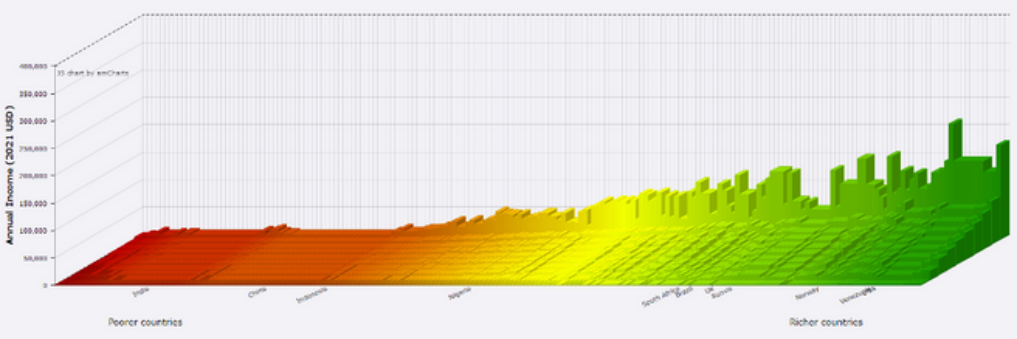
Growing income inequalities can undermine the foundations of market economies and political systems and endanger the well-being of even the best-off,[13] in part by creating unequal opportunities that decrease social mobility and weaken incentives to invest in knowledge. The result is a misallocation of skills and labour, and eventually wasted labour productivity through more unemployment. This process ultimately undermines market-based economies' efficiency and growth potential and threatens social and political stability.

Figure 1 on the following page offers an excellent visualisation of the distribution of wealth within and across countries and how it changed from 1980 to 2020.

To be sure, some degree of inequality may even be considered healthy due to its motivational effects. But current inequities are far from healthy, as illustrated in Figure 2. This chart depicts the results of a survey asking United States citizens about the ideal and actual distribution of wealth in their country. Responses of those earning over $100,000 a year and those earning under $50,000 were reported separately. The actual distribution is shown for comparison.

Americans (both high and low income earners) clearly view some inequality as ideal, but they vastly underestimate the actual amount of inequality.

1980



2020

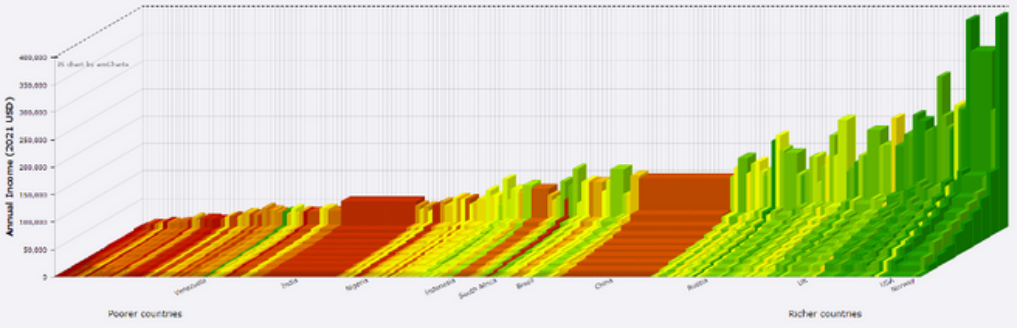


Figure 1. Distribution of wealth in 1980 and 2020.
Source: World Inequality Database

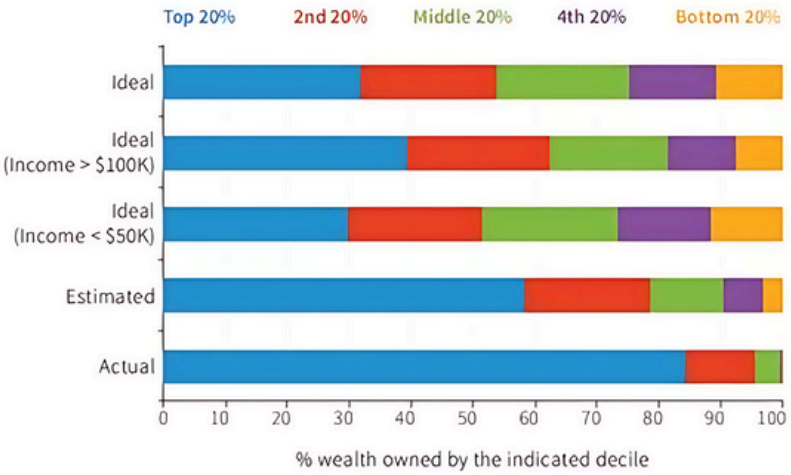


Figure 2. Americans' ideal, estimated and actual distribution of wealth.
Source: Adapted from Figures 2 and 3 in Norton, M.I., & Ariely, D. 2011. Building a Better America—One Wealth Quintile at a Time, Perspectives on Psychological Science 6(1), pp. 9–12

Breakdown in communication standards

Ironically, although access to information is nearly universal, the unequal distribution and presentation of information means that becoming well informed is not easy. Too often, freely available, unbiased information intertwines with biased news, advertising and entertainment – or worse, "alternative facts" whose intention is to mask or distort our understanding of the state of the planet.

Consider commercial players that push information to the consumer without context to evaluate the relevance. The tweets below from ExxonMobil and, more recently, from BP are good examples of this lack of context.

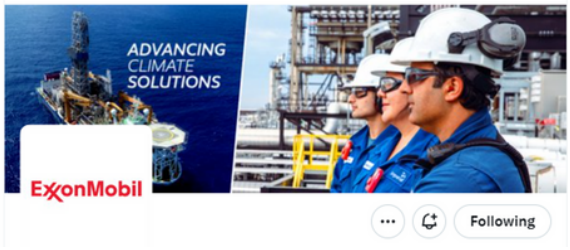
> **Exxon Mobil** @exxonmobil
> From #CarbonCapture to alternative fuels , we've spent over $7b in the past 15 yrs to reduce carbon emissions.

Source: Twitter, 21 December 2016.

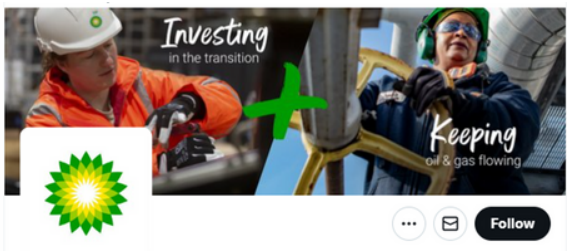
> **bp** @bp_plc
> We're dialling up our low carbon investment to around $5 billion a year by 2030 to help deliver our #bpNetZero ambition - 10 times what we invest today! We're building our integrated portfolio of low carbon technologies, including renewables and bio energy

Source: X, 21 October 2020.

At a glance, the fact that oil companies are spending several billions annually on "alternative" fuels or "low-carbon" technologies reducing carbon emissions sounds impressive, but it is paltry compared with the hundreds of billions of dollars that Exxon and BP have invested in fossil fuels (and did not mention). Over the past years, oil majors' proportional investment in renewables has grown from less than 1% annually to around 5–10%,[14] although their social media imagery, as shown below, suggests more of a 50–50 split.



Source: X, @exxonmobil 5 February 2024.



Source: X, @bp_plc, 5 February 2024.

Global advertising spending hit half a trillion US dollars in 2015 for the first time and is on track to hit a trillion in 2024.[15] This represents 8% annual growth, roughly double the global GDP growth, and in absolute terms, compares to the annual global investment in the electricity industry, including investment in

renewables.[16] The proliferation of the internet has brought the cost of news distribution effectively to zero, further enabling the 24/7 news cycle and creating an array of media outlets from which consumers can and do choose to support their world views. At the same time, ironically, media ownership is highly concentrated. For example, six corporations in the US now control 90% of the media, versus about fifty companies in 1983.[17] The case is very similar in Europe, where the existence of large government-affiliated organisations gives their flavour but does not change the picture, which has remained essentially unchanged for decades.[18] Perhaps more worryingly, relatively recently adopted internet-based technologies like search engines and social media platforms tend to be even more concentrated than traditional print media.[19] While social media is undoubtedly changing how we get our news, connect to people and access services, it also influences our world view, how we are governed and how our democracies work.[20] This new media concentration on a handful of global platforms has also drawn vocal criticism.[21] [22]

Media owners depend on advertising for funding. Given the intense audience competition, private companies use psychological tools to manipulate public opinions to their commercial advantage.[23] An oft-cited study from Cardiff University found that over 60% of local news stories in quality national dailies came wholly or mainly from agency copy or public relations sources; a further 20% had clear elements of wire copy and/or PR.[24] This phenomenon is described through journalist surveys, and influences how universities push their research findings for favourable public opinion to access often crucial corporate funding for further research.[25]

It is increasingly difficult for any individual to distinguish between news, advertising and entertainment. The struggle to access unbiased information makes it challenging to make educated and sustainable choices, whether at the voting booth as a citizen or at the shopping mall as a consumer. WikiLeaks, fake news sites, and even the internationalisation of state-controlled media (Russia Today and China Central Television are examples) further complicate the picture.

The role of the multinational limited liability corporation

The modern corporation, which allows many investors to pool capital and limit their liability to their investment, took shape nearly 200 years ago and fuelled much of late nineteenth-century growth. As the corporation gained power in legal status, the barriers to incorporation were loosened. In 1844, the US Supreme Court gave corporations explicit entitlement to pursue profit separate from social purpose. The UK followed in 1855 with the Limited Liability Act, which broadened the use of a corporate structure for conducting business. By 1889, there were only two British banks with unlimited liability. In the 1919 landmark case Dodge v. Ford, the US Supreme Court clarified that the corporation's sole purpose is to pursue profit for the shareholders.[26]

The large corporations that emerged between 1820 and 1920 in the US and UK (Standard Oil, Rolls-Royce, J.P. Morgan) were the mascots of market capitalism and the progenitors of today's large-scale corporations that practise international price arbitrage at every level of operation across the global economy. In his book The Corporation, Joel Bakan[27] describes today's corporation as a psychopath – devoid of any moral compass, as it relentlessly pursues power and profits.

Multinational corporations (MNCs) today control enormous amounts of the global economy. About 1,500 global corporations control about 60% of global revenues over cross-shareholdings.[28] Indeed, their financial power exceeds that of individual states. For example, Fortune Global 500 companies generated $27 trillion in revenue in 2016, growing 52% to $41 trillion in 2022. This is more than twice the combined $14 trillion in tax revenues in 2016, growing only 29% to $18 trillion in 2022, collected by OECD countries.
Given their financial power, the world's largest corporations exert tremendous influence over global social and economic development. Consider these facts:

- Corporations are massive users of natural resources: about 3,000 corporations are accountable for a third of global environmental externalities.[29] Counting in value chain emissions (so-called Scope 3 emissions), the 100 largest global fossil fuel corporations influence 71% of the global carbon emissions.[30]

- Corporations influence political systems via donations and lobbying. In the US alone in 2015, corporations reported spending $2.6 billion, growing 57% to $4.1 billion in 2022,[31] on lobbying expenditures and comprising 95 of the 100 largest individual lobbyists.[32] While the amounts are lower in the EU, the ratio between corporations and the rest is similar to that in the US.[33]

- All corporations globally employ around 700 million people, representing 25% of the working population.[34] The largest 500 corporations alone employ around 75 million people.[35]

- In 2015, corporate entities received 94% of the patents in the US and around 90% of the patents globally.[36] [37]

All the numbers mentioned above considered, it seems clear that MNCs are critical to any shift we make towards or away from sustaining the planet. Consider the words of Ban Ki-Moon, United Nations Secretary-General from 2007 to 2016:

"Business is a vital partner in achieving the Sustainable Development Goals. Companies can contribute through their core activities, and we ask companies everywhere to assess their impact, set ambitious goals and communicate transparently about the results."[38]

BAN KI-MOON, FORMER UNITED NATIONS SECRETARY-GENERAL

Three levers of change

We see three possible levers of change to propel sustainable development: individual choices, political choices and investment choices.

Personal choices

We see three possible levers of change to propel sustainable development: individual choices, political choices and investment choices.

Modern society lacks the technical and scientific skills to build sustainable capitalism less than it lacks the political will to act. For example, many current corporate sustainability initiatives are iterative improvements aimed at reducing unsustainable practices but implicitly promoting a business-as-usual approach, albeit with a "reduce, reuse and recycle" mantra tossed in. These initiatives, especially when communicated aggressively, look and feel like greenwashing and are even prosecuted under consumer protection laws in various countries.[39] [40] [41]

Interestingly, corporations overshooting their communication is almost unanimously frowned upon across the whole spectrum of opinions, including right-leaning political candidates,[42] academics,[43] the UN[44] and NGOs.[45] Although slowing the environmental destruction while we develop long-term sustainable solutions is laudable, we must eventually adopt a complete "cradle to cradle" approach to industrial production.[46]

Achieving a change in political will is a slow and frustrating process. While we wait for the fruits of our labour for political change, we always have personal choices in how we shop, vote and invest our savings. For instance, if consumers stopped eating beef, the Brazilian rainforest would cease being cut down to graze cattle, and global warming would decelerate.[47] This doesn't require political or corporate change. Nor does commuting by bicycle or using public transport.

Making decisive personal choices to align with a sustainable world can feel futile, as the impact of a single individual is so invisible, even if it's entirely tangible and even measurable. This is why building community and networking with others committed to a future of flourishing on the Earth is so crucial. While corporations are often criticised for aggressively pushing the overall responsibility back to consumers to avoid their own responsibility,[48] collectively, we have 100% control through personal choice!

This is not ideological, but business 101 – without individuals buying a particular product, no company can produce it. As individuals, we must realise the impact on sustainability that our behaviour and purchases create, ranging from cars and vacation travel to how we live, move, dress and eat.

Political choices

Governments must also guide corporate business practices towards sustainability, and "we the people" must pressure our leaders to do so. We advance tax-driven regulatory options below, along with better regulation on advertising and political donations (in the USA).

Eliminating harmful subsidies and taxing externalities

Two industries that generate environmental

havoc (although not alone) – fossil fuels and animal farming – currently enjoy generous subsidies in most industrialised countries. These subsidies effectively act as a reverse tax on ecosystem-destroying activities.

A fossil fuel subsidy is any government action that lowers the cost of fossil fuel energy production, raises the price received by energy producers, or lowers the price paid by energy consumers. These include direct pre-tax subsidies such as direct funding and tax giveaways, other activities, such as loans and guarantees to energy producers at favourable rates, and providing resources such as water and land to fossil fuel companies at below-market rates. So-called post-tax subsidies include environmental issues such as global warming and deaths from air pollution. These are just as real as pre-tax subsidies, though more challenging to measure. Since they have not been fully internalised, consumers bear damages from using fossil fuels; this constitutes a form of subsidy.

The IMF estimated global direct and indirect (with social and/or environmental costs included) fossil fuel subsidies at $5.3 trillion in 2015, representing 6.5% of global GDP.[49]

More recently, the IMF estimated fossil fuel subsidies globally to be $7 trillion or 7.1% of GDP in 2022,[50] reflecting a $2 trillion increase since 2020 due to government support from surging energy prices. Subsidies are expected to be volatile but eventually rise to $8.2 trillion by 2030 as the share of fuel consumption in emerging markets (where price gaps are generally larger) continues to climb. Compared with the subsidies, the revenue from carbon pricing mechanisms globally is around $0.1 trillion,[51] representing less than 2% of the total. The IMF concludes that full fossil fuel price reform would reduce global carbon dioxide emissions to an estimated 43% below baseline levels in 2030 (in line with keeping global warming to 1.5–2°C), raise revenues worth 3.6% of global GDP, and prevent 1.6 million local air-pollution deaths per year.

Agricultural subsidies amount to around $540 billion annually.[52] As for animal husbandry, OECD countries spend more than $75 billion directly subsidising meat production.[53] Meanwhile, the social costs of excessive meat consumption – the potential to increase (childhood) obesity,[54] increased prevalence of cancer[55] and heart disease,[56] [57] increased antibiotic resistance,[58] [59] land degradation, carbon emissions, freshwater shortage and biodiversity loss[60] – are not considered in this total. To subsidise animal farming – particularly large-scale factory farming – is to subsidise harm.

Instead of subsidies, we can estimate the externalities of all production processes and establish tax structures that capture the costs that private businesses (MNCs) pass to the rest of society. While it is not an exact science, taxing externalities is viable, and using the difficulty of establishing such a tax structure to hide behind a price of zero is unacceptable.

Tax the use of natural capital

Some economists argue that each individual in every generation deserves an equal share of ecosystem services.[61] A tax on ecosystem services – or what economists call "natural capital", with the proceeds shared equally – would realise this ideal of social justice. A tax on natural capital is essentially a tax on the use of resources provided by nature. Examples are taxing carbon dioxide and other greenhouse gases for their climatic harm, or taxing land and water use. Such a tax would redistribute global wealth more equally, since the richest countries, which use disproportionately large shares of the world's resources, would have to compensate poorer countries, which tend to

use disproportionately small shares of natural capital. Some proposed carbon credit schemes are based on this idea.

The proposed tax reform known as "land value taxation" (LVT) is a partial version of taxing natural capital, but the suggested tax on natural capital includes in the tax base not only the rental value of raw land but also the value of water use, pollution of the air, use of the sea's resources, and all other resources provided on the Earth through no human effort (ecosystem services). LVT has a large academic literature describing how such a tax system would operate.[62] Essentially, people pay market-clearing prices into the public purse for the flow of ecosystem services, and if the stock of natural resources is degraded, that degradation is taxed, and the proceeds are invested to compensate future generations.

Economics Nobel laureate Joseph Stiglitz summarised his opinion of a natural capital tax with these words: "Would it be better if we had more taxation of land and natural resource, and more revenue from natural resource management (and I would include atmosphere and spectrum?) … And I would say, 'Yeah.' And I think many economists would agree with that."[63]

Better education and regulation of advertising

Two approaches can help improve communication standards: education and regulation. Our education system needs to teach both schoolchildren and public citizens about behavioural biases and how marketing and advertising may manipulate their opinions to others' advantage. Public service announcements need to be broader in scope and much more pervasive and well funded – for example, more "Don't drink and drive"-type television advertisements paid for by the taxpayer.

Regarding regulation, while it is difficult to know precisely where to draw the line, much more needs to be done. Endless and accelerating consumption of manufactured desire is harming humans and the Earth. As a specific case of failure, read how the US Federal Trade Commission upheld the media's right to target sugary cereal ads aimed at small children on Saturday mornings when they are likely to be alone in front of the television.[64]

Given the United States' major role in the global economy, one starting point worth mentioning would be overturning the Citizens United v. Federal Election Commission ruling, which effectively allows unlimited spending on political media by corporate entities without disclosure. A dissenting opinion by Justice Stevens argued that the Court's ruling "threatens to undermine the integrity of elected institutions across the nation".[65]

Another important regulatory step is for corporate governance structures to require integrated sustainable corporate reporting, such as those advocated in the Global Reporting Initiative (GRI),[66] Sustainability Accounting Standards Board (SASB),[67] and most recently International Sustainability Standards Board (ISSB)[68] under IFRS.[69] All of these initiatives help investors, many of whom have signed up to the UN-backed Principles of Responsible Investing, make better-informed decisions when allocating capital. We wholeheartedly endorse especially ISSB due to its global nature and close link to mainstream financial accounting, which eventually should make sustainability reporting a standard practice for all investable companies.

Product labelling that includes environmental and resource-related information is another practical and potentially effective regulation, similar to nutritional labelling on food. For instance, an Environmental Impact Unit could label products.[70]

More income/wealth distribution

The social philosopher John Rawls advocated choosing an amount of wealth redistribution to build into tax and spending policies behind "a veil of ignorance".[71] In other words, decision-makers choose how much redistribution will occur in society without knowing exactly how the redistribution will affect the decision-makers themselves. We need to strive for mechanisms where the decision-makers for the level of wealth redistribution are not the currently wealthy. Given human nature, it seems clear that political processes controlled by the currently wealthy will under-redistribute.

A tax on wealth also forces the largest pools of capital to produce a material gain to remain large (i.e. to engage with economic decision-making and productivity).[72] [73] We recommend a wealth tax of around 1% that is purely for redistribution from more prosperous nations to poorer nations, in addition to taxing natural capital use and making the necessary transfers. (The SDGs recommend countries target 0.7% of gross national income for development assistance.[74]

Investment choices

Corporations' cost of (and access to) capital determines the size and nature of their operations. The cost of capital is simply the expected return investors require to provide capital for corporations. From the corporations' point of view, it is the price of obtaining the funds to run their business. Creating shareholder value requires investing capital in a way that provides a return greater than the cost of capital. The lower the cost of capital, the more viable any project is for the corporation.

S&P Global capital surveys indicate that the largest 2,000 non-financial companies globally spent over $3.5 trillion annually from 2007 to 2020 to acquire or upgrade physical assets.[75] These capital expenditures relate to companies' operations, the kind of technologies they choose, where they build manufacturing capacity, when they replace existing capacity with new technologies, and their investment in research and development. The cost of capital impacts all of these decisions.

Investors play a crucial role in determining a company's cost of capital. A quick analysis of a standard supply-and-demand curve shows that reduced demand (a downward shift in the demand curve) for a company's shares will result in a lower share price. A lower share price implies that investors require a higher expected return from the company. The opposite is true for increased demand for a company's shares: the demand curve moves upward, and the price increases, implying a lower expected return.

By allocating capital (buying and selling), responsible investors – indeed, all investors – have the power to shift companies' cost of capital. By shifting the cost of raising capital, responsible investors can influence the direction of economic development by making it cheaper for sustainable companies to raise additional capital and more expensive for non-sustainable companies to do so.

The role of public equity markets in providing providing new risk capital is not limited to initial public offerings (IPOs). Listed companies raise additional equity through a so-called secondary public offering (SPO). The volume of SPOs compared with the volume of IPOs fluctuates with the ebb and flow of capital markets, between five times higher during quiet periods and over 15 times during crises.[76] Non-financial companies usually raise more

than 50% of their capital needs through equity,[77] making listed equity investors a potentially powerful group in influencing how listed companies and the markets at large behave.

Responsible investors have the power to influence the amount of capital firms can raise in their secondary offerings. To be sure, any one investor's effect on the cost of capital may be miniscule, but we amplify the impact via our collective action. Momentum in sustainable investing is building, and we at Impact Cubed are proud to help lead the shift. Additionally, research from academia and industry peers, and practical and anecdotal examples from practitioners, decisively demonstrate that responsible investing can be done profitably.[78]

Impact Cubed's commitments

At Impact Cubed, we are committed to the collective goal of flourishing on the Earth by practising sustainable capitalism and responsible investment.

Our personal commitments:

- Providing a work environment that allows for personal growth and work–life balance.
- Reducing the footprint of our operations and offsetting the impact we cannot avoid.
- Encouraging sustainable commuting through economic incentives and flexible working hours.
- Encouraging plant-based diets for all employees through education and a policy of providing only vegetarian food at events and reimbursing only vegetarian meals during business travel.

Our political commitments:

- Supporting policies that promote income redistribution, elimination of harmful subsidies, taxing of externalities and natural resource use, and responsible advertising.
- Supporting collective bodies that promote sustainable and responsible investment, such as UN PRI and Ceres.

Our investment commitments:

- Using modern investment analysis and portfolio engineering techniques to decisively allocate capital from less sustainable to more sustainable companies.
- Dogmatically appreciating our fiduciary duty without compromising absolute returns.
- Pushing the industry forward with research and tools that promote responsible investing.
- Supporting the transition towards a sustainable financial system.
- Setting an example that the investment industry can be both sustainable and responsible by conducting our own operations as such.

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About Impact Cubed

Impact Cubed draws on decades of sustainable investment expertise to advise throughout the investment value chain. Whether it's delivering granular, factorised impact data, creating leading indices, thematic funds, and custom benchmarks, or empowering investors with robust reporting and analytics for strategy validation, we're there every step of the way.

Our advisory work is underpinned by our unique 3D-ESG approach that integrates impact alongside risk and return; enabling superior solutions for clients, and our mission to allocate capital towards a sustainable future.

Impact Cubed Indices apply advanced screening, weighting and risk management techniques to deliver targeted investment outcomes with optimal risk and return considerations.

Euroclear are a strategic partner to Impact Cubed.

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