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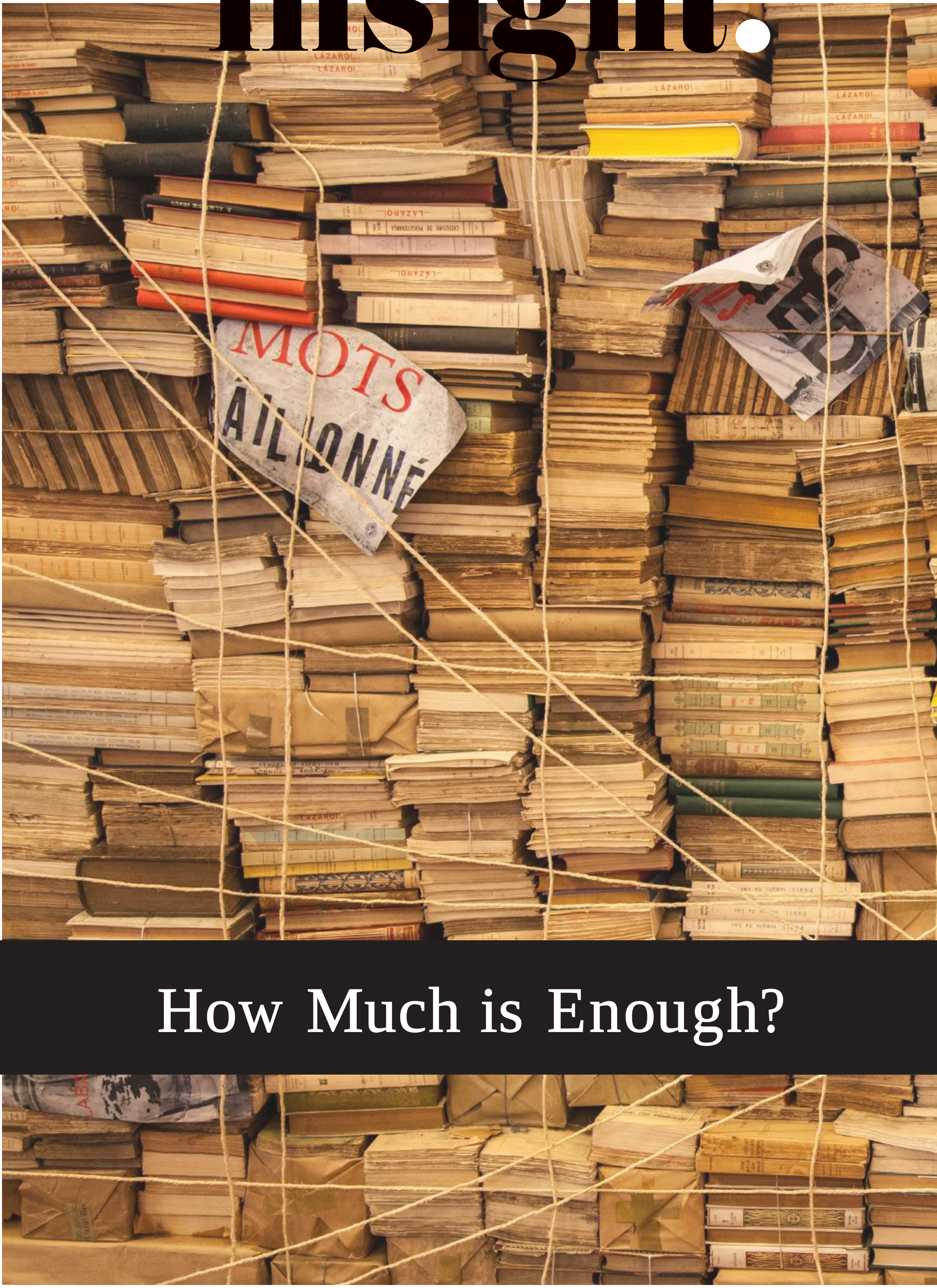

How Much is Enough?

Letter from the Editor-in-Chief

Welcome to this semester's issue of insight – the first to be produced entirely over Zoom!

In our increasingly technologically advanced and global world, it's important to stop and wonder: what, exactly, is our end goal? How much is enough? Is our drive for more productivity and growth the thing that is harming our planet, or can we keep growing forever? We might not have all the answers, but we do have thought-provoking articles ranging from the economics of inequality to the future of the human race in space– and many things in between.

I'm sure most of you will agree that it's been a surprisingly hectic term, given that our degrees can now be produced from the comfort of our living rooms. The lack of pubs is definitely a negative, as is the lack of readily accessible university community which we've come to rely on.

I hope you enjoy this semester's issue of Insight. As always, huge thanks must go to the writers, the editors, and the School of Economics for making it possible.

All the best,

Amber Murray

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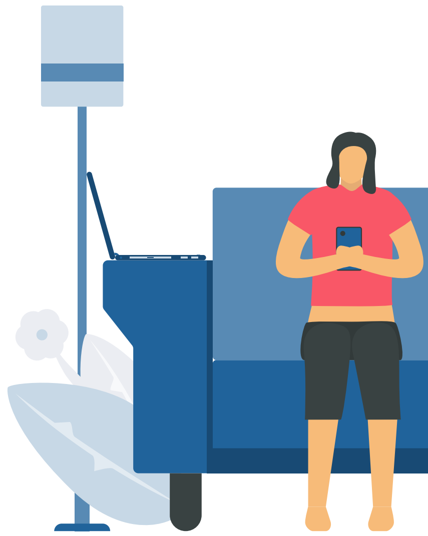

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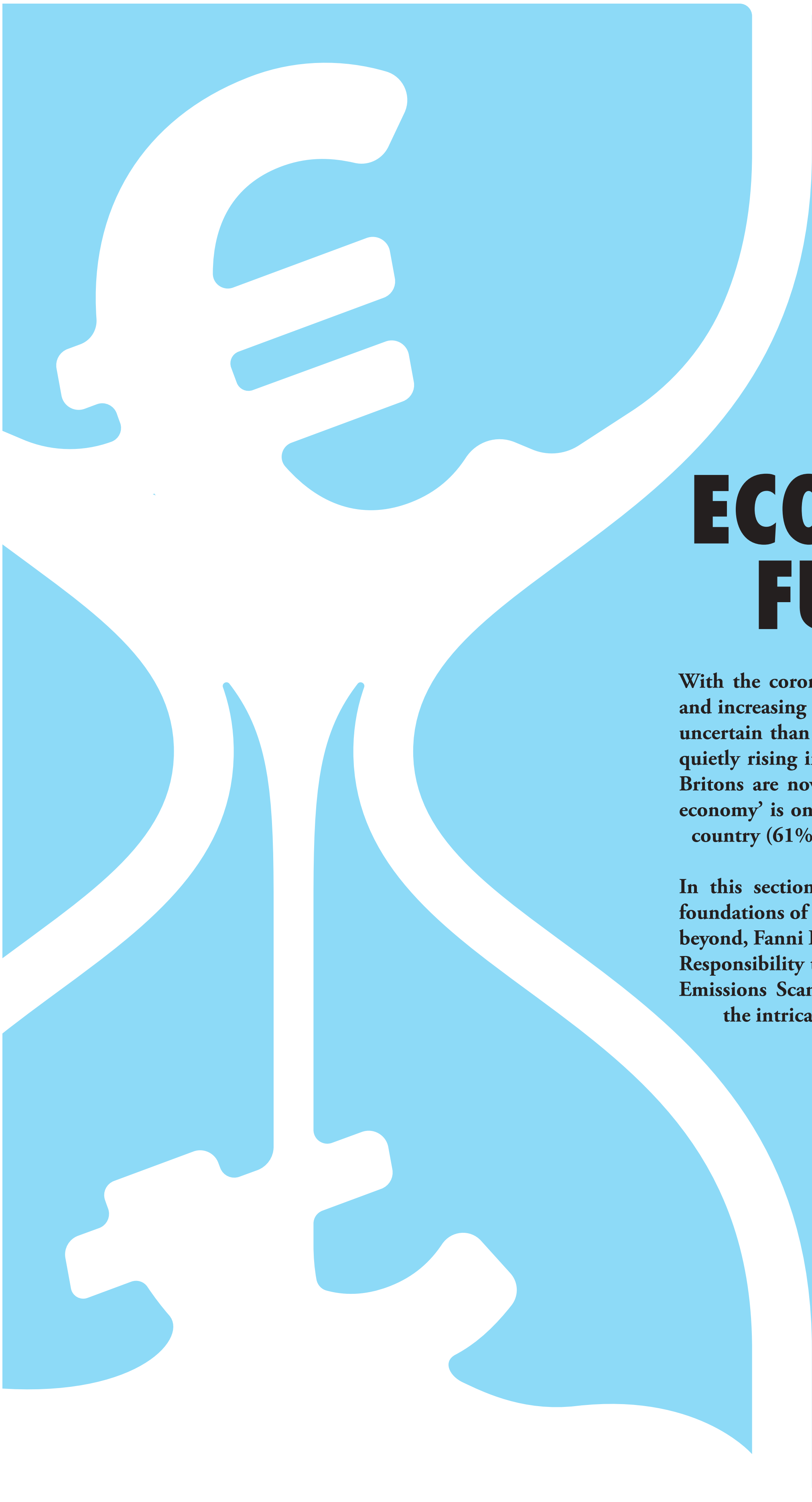

OUR ECONOMIC FUTURE

With the coronavirus pandemic, climate change, and increasing inequality, the future can feel more uncertain than ever. Economics concern has been quietly rising in the population - a 2020 YouGov Britons are now almost as likely to say that 'the economy' is one of the top three issues facing the country (61%) as they are to say 'health' (66%).

In this section, Rinto Fujimonto questions the foundations of economic inequality in the UK and beyond, Fanni Leppanen looks at Corporate Social Responsibility through the lens of the Volkswagen Emissions Scandal, and David English examines the intricacies of environmental disaster.

Corporate Social… Virtue Signaling

Fanni Leppanen breaks down the factors that led to the Volkswagen Emission Scandal and explores innovative ways to solve the question of how much Corporate Social Responsibility (CSR) is enough?

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Fake it till you… break it?

As Generations Y and Z take up an increasingly large proportion of the consumer base, there is unprecedented demand for sustainable products and environmentally cautious operations. Furthermore, we are fast to blame firms for any irresponsible behavior. With Twitter at our fingertips, consumers can easily scrutinize the activities of firms and within hours, their reputation can be on the line. Needless to say, we put a lot of pressure on firms to behave perfectly in terms of environmental awareness. Most firms know this and recognize the advantages of marketing their corporate social responsibility. However, some corporations stop at nothing when reporting their CSR. Sometimes, this leads to situations where their behavior seems, and is, too perfect to be true.

The Volkswagen emissions scandal is an example of CSR efforts gone wrong. In 2015, the company had sold 11 million clean diesel cars that were supposed to have advanced engines and effective emissions control, allowing drivers to feel slightly less guilty about their carbon footprint. And, well, ignorance really is bliss. Everything seemed perfectly under control until a research group at West Virginia University tested the cars' emissions on the road, instead of in laboratory conditions as they had previously been tested. They found that 600,000 Americans, and an additional 10.4 million people worldwide, were driving cars that emitted 40 times the nitrogen oxide limit set by the Environmental Protection Agency. A defeat device had been installed in every clean diesel car which turned on in laboratory conditions to pass emissions tests, but turned off immediately when drivers hit the road.

Profits vs. Virtue

What could have possibly driven the managers and executives of Volkswagen to a situation where they intentionally deceived their customers, dealers, the public and the government by installing defeat devices that enabled the release of toxins into the atmosphere? The underlying issue with Volkswagen, as with most corporations today, was that there was no willingness to sacrifice the objective of profit maximization and thus no overriding incentive to investigate and improve the emissions efficiency of products. Concrete environmental action by firms is often seen as a luxurious addition to their core offering that should not come in the way of making profit. However, firms still employ heads of CSR, sustainability coordinators, compliance officers and environmental managers. What firms may not realize is that these jobs are demanding. Heads of CSR are pressured to create and communicate an environmental reputation for the firm, often without altering the existing operation, however polluting and resource-depleting it may be. When Volkswagen decided to introduce a clean diesel range, there was nothing left for the time- and budget-constrained decision makers to do than to lie, so that Volkswagen could communicate its CSR to the world.

Faked CSR is awfully common, mostly because firms are left to regulate their behavior on their own. With amounting social pressures to act sustainably, firms have no choice but to compete with each other on who does the most good. So, the question then becomes: how much CSR is enough? This is when deceptive methods such as exaggerating environmental actions, downplaying carbon footprints, and lying about products come into play. As a result, there exists a worrying norm around this type of deception. The fact is that, unfortunately, we are all quite used to these types of scandals. However, the backlash often only lasts a few weeks after which attention is redirected to the next issue at hand.

Sustainable Methods for Sustainable Actions

The status quo around faked CSR needs to change. Rather than letting firms manage and report their CSR internally, increased external regulation is needed. This calls for environmental consultants, emissions calculation firms, sustainability verification systems, and government guidelines that set the standard. In the meantime, the least corporations can do is recognize that authenticity is always the key to creating value. The goal should no longer be for CSR to be a mere publicity stunt, but rather for sustainable activities to be integrated into the value chain of the business. CSR teams need enough resources and budgets to facilitate necessary changes in production processes, supply chains, product development, and marketing activities. This way, profit maximization and social value creation can go hand in hand.

The concept of CSR needs to be reexamined on a grand scale. While there is still increasing pressure from society to act sustainably, scholarly rhetoric recognizes that businesses still need to prioritize profits and shareholder value. This is where CSR can be morphed into CSV: creating shared value for business and society. Currently, the impact from CSR activities is limited by the corporate footprint and CSR budget, whereas CSV realigns the entire company budget to fit new goals. In this model, sustainable activities are integral to profit maximization. One can only hope this is the path to finding a middle ground.
pay to cooperate. ■

Our Economic Future

How Much Inequality can Merit Justify?

Rinto Fujimoto, a fourth year economics student, questions the meritocratic foundation of economic inequality.

On the 1st November, Boris Johnson declared a four-week long lockdown of England. This is the second lockdown since the start of the COVID-19 outbreak, and few people were surprised by the announcement. The initial fear and panic had been replaced by the gradual weariness and apprehension, as many had anticipated the measure's devastating impact on the economy. A report published recently by the COVID Recovery Commission indicates that disadvantaged communities have been overwhelmingly affected by the pandemic, and sadly, this statement was just as predictable as the lockdown announcement. Similar to every crisis of the past decade, we are left pondering on the sources of a growing inequality.

The Meritocratic Dream

Nowadays, people generally assume that merit justifies inequality. Meritocracy is in fact so ingrained in our society that there exists a quasi-consensus across the political spectrum on the virtues of merit. The American Dream, for instance, is widely accepted in the United States as a national ethos, the model for an ideal society where the hard-working are rewarded regardless of their social condition. In Britain too, classist traditions have gradually eroded since the post-war period and instead, Labour and Tories alike scramble to claim the mantle of social mobility. Meritocracy appeals to the poor because it offers them a path to success and to the rich because it legitimises their wealth; to society because it incentivises hard work and to the individual because it fulfils their dreams. Anyone would apparently benefit from the apparent appeal of meritocracy. Yet, there has been a clear sense of unease around meritocracy ever since the resurgence of inequality in the last four decades. The sociologist Michael Young, who satirically coined the word "meritocracy" in his famous work of political fiction, foreshadowed the excesses of a system in which the value of an individual would be weighed against their talent and intellect. A society in its quest for equity could then ask: how much inequality can meritocracy rationalize?

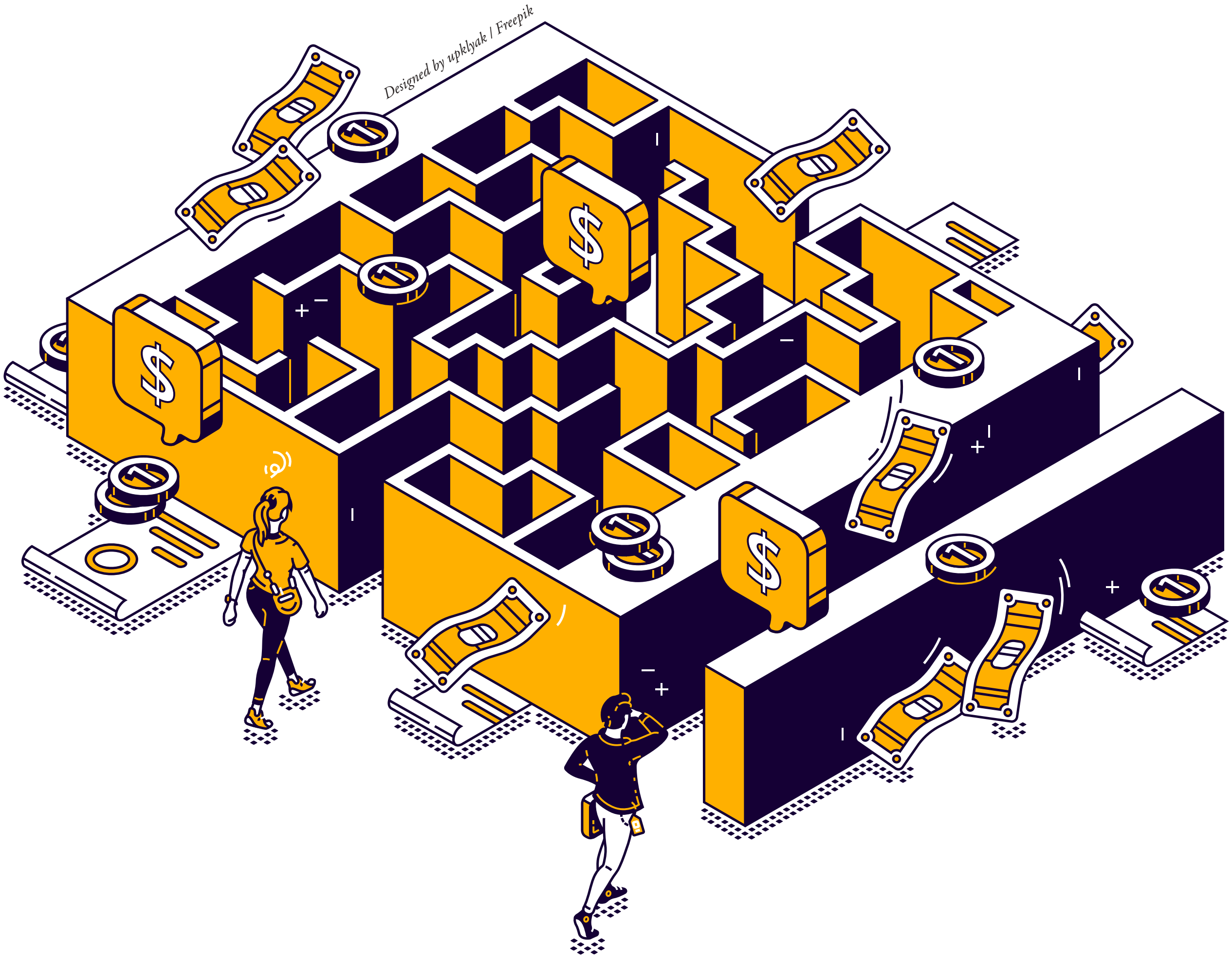
When Money Earns More Money

During the last four decades, widening inequality in the developed world has been driven by an increasingly skewed income and wealth distribution. Put simply, the rich have got richer, with a distinct pattern in income sources between the top 1%, 0.1% and 0.01% of the wealthiest individuals. In Capital in the 21st Century, Thomas Piketty shows that the share of income attributed to capital becomes larger relative to the share attributed to labour as we move up in the income distribution. Qualitatively, the top 1% and 0.1% tend to be composed of managers, doctors and lawyers deriving their revenue from their profession, while the top 0.01% is mostly made up of financiers and CEOs of large companies benefitting from returns on stocks and real estate. The difference is also quantitative, with the UK's top 1% and 0.1% earning more than £129,000 and £521,205 of annual taxable income respectively, compared to the top 0.01% earning at least £2,230,000. We observe an equally dramatic pattern for wealth: someone in the top 10% owns at least £350,000, compared to the top 1% owning at least £2,000,000 (individuals in the top 0.1% and 0.01% own probably much more than this). Piketty attributes this disparity to capital creating more capital: high net worth individuals earn high returns on their assets, which can be reinvested to generate more income. As a result, inequality becomes more pronounced at the top of the income distribution, with the very rich earning and owning significantly more than the rich.

When capital earns more money than labour, it is unsurprising to hear politicians railing against billionaires and their wealth. Surgeons and CEOs of large companies both belong to the top 1%, although many would agree that surgeons' incomes are more proportional to their societal contribution than CEOs' (with the latter also likely to belong to the top 0.01%). That is not to say that billionaire CEOs do not contribute to society. However, we may wonder how much income deriving from the appreciation of stock options or the returns on a hedge fund investment are truly deserved. And while some millionaires and billionaires give back to society through philanthropy, their donations elude any democratic oversights. For instance, should the Bill and Melinda Gates Foundation have so much power to shape public health policy? Or should their money be taxed and spent in other areas? Critics might argue that philanthropy at its worst maintains an unequal society that funds private schools and universities where the elites are overrepresented. Such misallocation of public goods illustrates how oftentimes inequality is the product of a complex, self-reinforcing mechanism with a potentially negative externality.

Relative Poverty

In Britain, few people starve to death. Most people have access to public education, basic healthcare, housing, and a job. Presumably, we've never had it so good. So what is the fuss all about? The term "relative poverty" is tautological, if not euphemistic because in any society, the concept of poverty will be inherently



relative to some arbitrary standards. Yet, the psychological hardship created by relative poverty can be as damaging as the material hardship caused by abject poverty. Low income earners in the UK are defined as any households earning less than 60% of the national median income, or less than £18,480 as of 2020. An estimated 14 million people live under this threshold, including 4.1 million children and 2 million pensioners. Of those 14 million people, 4 million live on less than £9,000. The net financial position of those households is almost negligible, with most assets held in pension funds and physical wealth. Among the lowest earners, wealth may even be negative because of outstanding debts.

Due to a lack of data, it is difficult to assess the life of low income earners without succumbing to some stereotypes. In reality, some live comfortably on the national living wage, while others struggle to make ends meet, living in London is costlier than living in a rural area, dependents may constitute an extra burden--the situations are as varied as the individuals who belong to this group. However, after examining the anecdotal evidence of financial hardship in the media, a sense of anxiety emerges in all cases. For many people, it only takes a personal accident or a divorce to lose their income, slipping through a public safety net which has been left underfunded. The average workers have seen their real wages grow annually by 0.1% for the past 10 years, which underscores the stagnant living standards. And while an increasing number of students from low-income backgrounds are enrolled in higher education, 52% of disadvantaged youth are still likely to leave school early and remain in low paid jobs.

Clearly, the meritocratic machine in the UK has stalled on many counts, and attributing the lack of social mobility to a shortage of talents among the most disadvantaged is not supported by the evidence. Our current form of meritocracy naively ignores how race, gender, disability and class predetermine people's chances of success, and instead, it values the individual based on talent and knowledge alone. The result is an allocation of resources biased towards those who are already talented and whose economic returns are certain. The others will have to wait until a well-meaning altruist invests in their future.

How Much is Too Much?

Inequality is a dual problem: the rich keep becoming richer while the poor are kept poor. At the core of the issue, there is a self-reinforcing mechanism that misallocates resources to the wealthiest such that few opportunities exist for the less well-off. The dissonance between the ideals of a society founded on merit and the flaws in our system is deafening, if not disconcerting. It is disconcerting because the stability of a society depends on the set of beliefs that legitimize its imperfections: inequality is as old as ownership, but it becomes particularly pernicious once the most deprived feel left behind. The rise of populism and the political unrests that have shaken Britain since the Great Recession cannot be summarised in terms of economics. However, the ubiquitous rejection of an unfair economic system is observable in every crisis, be it political, economic or a pandemic, prompting us to question the soundness of a structure that is purely based on merit. In our times of unprecedented wealth, maybe everyone deserves to live at a material standard delivered unconditionally, free to discover their talents and pursue their dreams.

Our Economic Future

Blackened Blues

David English explores cost estimation by examining the MV Wakashio oil spill.

MV Wakashio Oil Spill

In July 2020, the MV Wakashio, a cargo vessel bound for Brazil, ran aground off the coast of Mauritius, causing an oil spill that would prove to be the worst environmental disaster in the country's history. This spill and the damage that it caused, is far from unique. Every year, all around the world oil spill incidents occur wrecking extensive environmental and economic damage that is notoriously difficult to estimate and accurately recompense. In many cases the effects of such oil damages persist for decades, rendering waters unusable, destroying rare ecosystems, and bringing an abrupt end to ways of life that have existed for centuries. For a remote, densely populated island nation like Mauritius, the sea is an essential source for prosperity. The country's blue economy captures some 10.5% of its GDP, a figure which doesn't include the largely ocean-dependent tourism industry that employs one in five people. For the many people that rely upon these threatened waters, a question becomes apparent: When the waters run black, who do they turn to for aid?

Who Should be Held Accountable?

Standard economic theory indicates that the costs of this spill should fall wholly on those private entities which caused them. Obligating polluters to internalise the costs of damages they have caused should lead to appropriate compensation, effective restoration projects, as well as more cautious corporate planning and operations into the future. This economic idealism has rarely been realised. Instead, throughout recent history, the role that public and private entities have to play in oil spill responses has been highly variable, as there are numerous limiting factors which prevent full private accountability.

Among these limiting factors is the misallocation of capital between public and private entities. Where governments typically hold physical capital that enables them to act as first responders to disasters, polluting firms typically hold substantial amounts of financial capital to fund and maintain these operations. As a low to middle income country already deep in recession, evidence suggests Mauritius finds itself lacking both forms of capital. In the immediate wake of the MV Wakashio oil spill, lacking much needed government support, thousands of volunteers took to the beaches for clean-up efforts, cutting off their own hair to make oil absorbent barriers.

Cost Estimation

The difficulties in seeking financial capital are compounded by the overwhelming task of estimating the extent of the damages done. Most economic indicators are immediately responsive to a shock of this magnitude; lower wages, lost revenues, and upticks in social welfare spending are some of the variables that can usually be aggregated to develop a preliminary estimate of a spill's costs. In Mauritius's case, however, the reliability of such metrics for damage appraisal are confounded due to the pandemic. For the many people already unemployed and the countless firms already mothballed before the spill, this shock doesn't manifest into noticeable differences in their short-term income stream. As such, differentiating the impact of both of these shocks upon the economy is incredibly difficult. Total damage estimates are further complicated by the necessity of evaluating environmental costs, an issue with myriad, often-disputed estimation methodologies.

Even allowing for a longer timescale, it is believed that damages from the majority of oil spills go underestimated, and those affected, by extension, go undercompensated. While Mitsui OSK Lines, the operator of the wrecked vessel, has already offered some $9.4 million USD (¥900 million) to be paid over the next several years, this amount reflects no real established damages, and was largely made as a show of good faith. Simultaneous to this display, however, are the efforts of a number of private actuaries and insurers working to limit the amount of private responsibility that can be established over this disaster.

Though the vessel has been scuppered and the leaking stopped, the story of the Wakashio is still very much in its infancy. The frictions between public and private agencies yield unsatisfactory outcomes which more closely resemble a market failure than a resolution. Even as finances are obtained and rehabilitation projects developed, there are important social costs to oil spills which are often discounted and nearly impossible to quantify. For those communities that have had their lives and cultures inexorably affected by the disaster, no amount of compensation will ever be enough to remove the stains of this disaster. ■

De-growth

How much growth is enough to keep the world going? Do we really need to grow? A new theory in economics, de-growth, suggests that maybe we could do without it.

This section is dedicated to that theory: Ollie Ryder-Green & Blair Reid give us an overview of de-growth as a theory, and Milan Marcus looks at the relationship between climate action and de-growth.

De-growth

Is Enough, Enough?

Blair Reid and Ollie Ryder-Green explore the timely rise of Degrowth economics economy.

Economic growth has long been touted as the driving force behind human prosperity. As such, theorising about growth has become a major preoccupation for the modern economist. Policymakers have become deeply enamoured with growth, measuring progress in percent and letting decimals dictate success. Yet increased awareness about the dependency of our economic lives on the environment has reified a sense of unease for many individuals as they come to realise that 'limitless' economic growth comes at a steep environmental cost. Some now question the rationale in continuing to promote an economic system that places such strain on our fragile environment. Some have gone further, challenging the notion that economic growth has a direct positive impact on human well-being. All this has culminated in the Degrowth movement: a growth-sceptic collective that offers a radical alternative to the conventional approach to growth currently dominating economic thought.

The Growth of Degrowth

Degrowth has roots in the work of 20th-century thinkers like Nicholas Georgescu-Roegen, one of the first economists to attempt to merge economic theory with physical reality — something which has been tried only sparingly since. Georgescu-Roegen argued that economic processes are simply transformations of Earth's energy. As innocuous as this might sound, Georgescu-Roegen made stark predictions about a planet consumed and exhausted by economic activity. Degrowthers are wary of such a future.

Instead of a structural shift to sustainability, Degrowth demands a fundamental change in societal values. The movement is defined less by a desire to set growth rates equal to zero than it is by a view to abolish them entirely. Degrowthers will tell you that the roots of consumerism and productivism run deep and rather than bringing GDP indices to an abrupt halt, uprooting these deep-set beliefs will require a healthy dose of introspection among businesses, consumers, and—if they prove capable—politicians. Proponents of Degrowth highlight the shortcomings of GDP targeting and much maligned neoclassical theory; they cite rising inequality, flat living standards, and impending environmental catastrophe as direct consequences of an incessant political and economic fixation on growth. If the status quo is secular stagnation, then the alternative, degrowthers propose, is to focus on concrete measures that improve wellbeing, such as healthcare and education, redistribute wealth and limit superfluous consumption. Degrowthers suggest we step sideways rather than forwards on the hedonic path to prosperity.

There's a Hole in Your Theory

If the good life beyond growth sounds untenable, some prominent thinkers in the Degrowth movement would faithfully disagree. Most notable is Kate Raworth, whose Doughnut Economics brought Degrowth to the mainstream. Raworth's Doughnut is typical of Degrowth models—although self-respecting degrowthers are reluctant to use the term; instead, they prefer 'frameworks' or 'visions'. It involves no niggly equations or abstract assumptions. Instead, there is an easy-to-interpret graphical representation of a Goldilocks zone of economic prosperity, in which society's basic needs are met and ecological boundaries are not exceeded. This maintainable middle-ground is proof of a future in which human prosperity fits neatly within the capacity of the planet. Sceptics are not so convinced.

Critics of Degrowth point to a lack of complexity in the theory and a failure to provide a compelling response to the large-scale unemployment that would inevitably accompany the economic contraction advocated for; the distributional impacts of which may actually hurt rather than help the poor. Giorgios Kallis, a prominent Degrowth academic, suggests a combination of work sharing and universal basic income to resolve this issue but neither seem feasible in the wake of a pandemic that has decimated the labour market. The arguments of degrowthers unsurprisingly rub many eminent economists the wrong way; the late Wilfried Beckerman, an early critic, staunchly defended growth and rejected the notion of resource depletion. He, like many others, believed instead in the power of the market to provide the incentives necessary to fuel innovation. In Beckerman's words, small is stupid.

Get Real or Grow Up

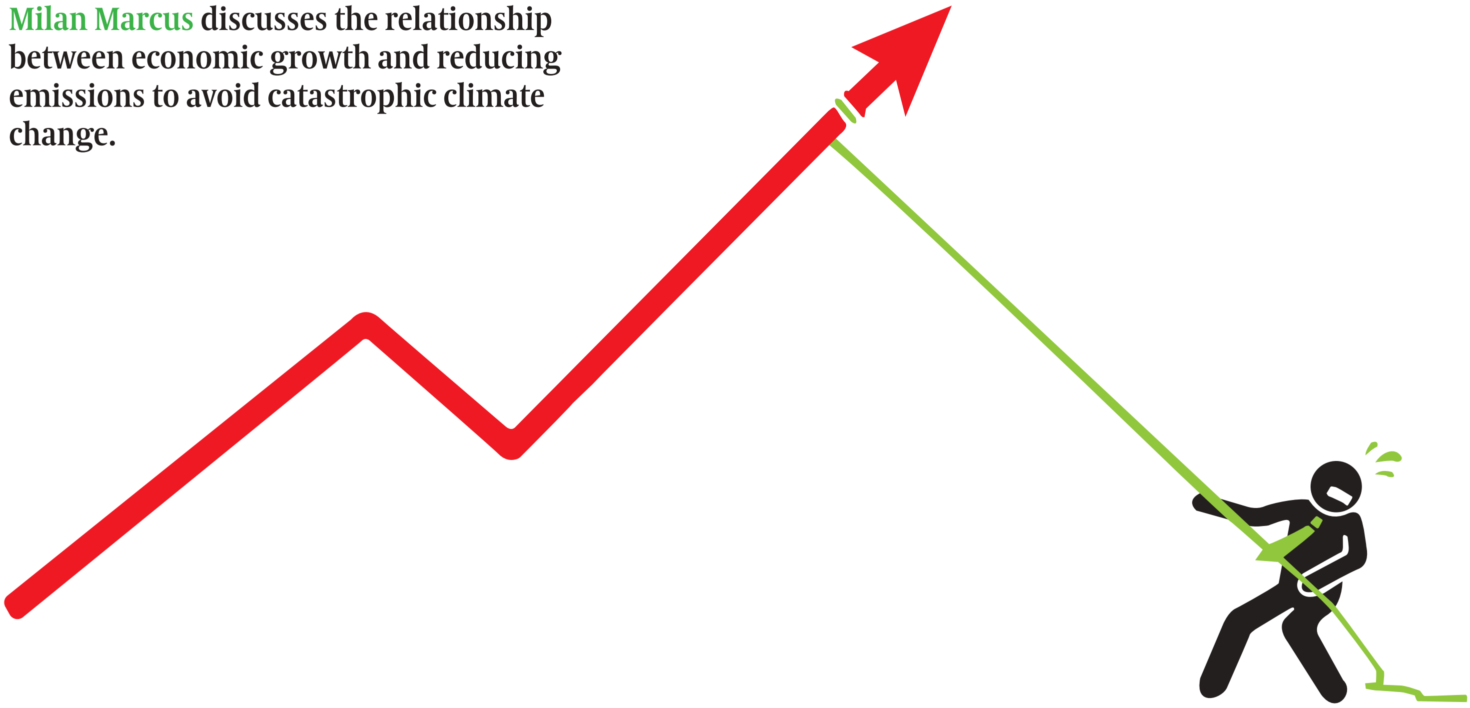
Degrowthers argue that there are no real alternatives to the theory. All growth is bad growth. The relatively recent explosion in the use of renewables does, however, make Degrowth's doubts about 'green growth' appear more tenuous. The claim we should abandon any and all growth is undeniably drastic; other economists suggest instead an agnostic approach to growth to discourage governments from obsessing over growth rates and give them license to put human prosperity ahead of sustained economic growth.

Alternative approaches to growth that don't require a complete rewriting of economic theory have obvious appeal. However, the arguments of Degrowth can be seen as changing the conception of economic progress; they are not an attempt at producing an oven-ready theoretical framework to replace almost 300 years of economic thought—an assumption that even most economists could not stomach.

What may be digestible for economists, politicians, and society at large remains to be seen. In our view, it is clear that Degrowth does not provide all the answers, but it is asking the right questions. Time will tell whether established economics has been listening. ■

Degrowth or Decoupling – Towards a Zero-Emissions Economy

Milan Marcus discusses the relationship between economic growth and reducing emissions to avoid catastrophic climate change.



It may seem like half a lifetime ago, but before the Covid-19 pandemic spread, another global issue dominated the news: climate change. At their peak, protests saw millions across the world demanding their governments act to mitigate climate change. And governments were listening. An increasing number are committed to carbon-neutrality by 2050. The EU is determined to make Europe the first climate-neutral continent. In the UK, reaching net-zero by 2050 is enshrined in law. Scotland is more ambitious, setting its target five years earlier. This September, China's president Xi Jinping surprised many at the UN General Assembly by announcing that his country intends to reach carbon-neutrality before 2060. Two of the three largest economies and polluters are devoted to reaching net-zero within 40 years. The goal is clear. But what are the appropriate means to get there?

Degrowth, or Poor and Greenish

One school of thought advocates achieving environmental goals through 'degrowing' (i.e. shrinking) our economies. The argument is as follows: Since the industrial revolution, rapid rates of economic growth have gone hand-in-hand with rapid increases in greenhouse gas (GHG) emissions. The two are invariably linked, so reducing the latter requires decreasing the former. Indeed, since the early 19th century, global GDP has grown by 10,000%. Simultaneously, global CO2 emissions have also increased – by a staggering 70,000%.

By this logic, economic degrowth seems a compellingly simple solution to reducing emissions quickly. History provides some clues on how well this works in practice. Following the collapse of the USSR, Russian real GDP per capita in 1999 was half that of 1990. Russia's GHG emissions also decreased substantially, but not proportionally.

These examples illustrate two important considerations. First, GHG emissions are likely to decline less than proportionally with degrowth. So, if a country is determined to decrease emissions by 30% in the next 15 years by pursuing degrowth, its economy would likely need to shrink by around 50%. Second, periods of sustained economic decline are always associated with hardship among the population. What was true for Russia in the 1990s and Zimbabwe under Robert Mugabe, is still true for Venezuela today.

Degrowth also doesn't look like a sustainable way of reducing emissions when looking at how the Covid-19 pandemic (and lockdowns) affected the UK economy and emissions. According to the ONS, the UK's real GDP was 21.5% lower in the second quarter of 2020 compared to 2019. CO2 emissions over the same period were an estimated 23.6% lower compared to last year. For enthusiastic supporters, this may confirm degrowth's validity. Yet on closer inspection, the implications are shocking. Suppose we pursued our climate targets by degrowth at a rate similar to the largest shock to the global economy in decades. Reaching zero emissions would then imply reducing GDP to a minimal level, refraining from almost anything considered 'economic activity'. The threat posed to people's livelihoods would make such a strategy inviable.

The Covid-19 pandemic taught us more about degrowth: large-scale reductions in economic activity cause large-scale distress, financial and otherwise. This is especially true for low-wage sectors such as hospitality, where working from home isn't an option. People are currently suffering gravely from 'degrowth' in the UK, where the government can support those out of work. They suffer even more in developing countries, where such support isn't available. Radical societal change, in the form of rejecting current-day consumerism to allow large-scale declines in GDP, seems difficult to imagine even in developed countries. Such severe economic degrowth seems completely unimaginable in developing countries, with hundreds of millions still living in absolute poverty.

Solving our global environmental crisis cannot rely solely on shrinking economies. That position assumes that most people have the privilege to live with less. Instead, we need to transform our economies so that they are completely independent from GHG emissions.

If not Less, then More?

On the other side of the debate are those arguing that a sustainable future necessitates more economic growth, not less. They point towards the Environmental Kuznets Curve (EKC). This inverted U-shaped relationship between a country's per-capita income and environmental degradation predicts environmental degradation to rise with per-capita income up to a certain point, after which it falls. The assumption is that once people's basic needs are satisfied, they care more about other issues like air pollution. Thus, proponents of this theory argue that poor countries simply need to grow quicker and reach the downward-sloping part of the EKC. Increased wealth would automatically lead to a better environment.

When something sounds too good to be true, it usually is. Wealthy countries have continued to become wealthier while increasing their emissions: US and Australian emissions peaked only in 2007, in New Zealand they continue to grow slightly, while in Qatar, which has among the highest per-capita incomes, emissions are skyrocketing.

Even the countries closest to resembling the downward-sloping section of the EKC provide no compelling argument for relying on growth alone. For decades, several EU-countries have experienced both gradual GDP growth and a gradual emissions decline. But if all developing countries were to first reach the wealth levels of Western Europe, and then experience a similar emissions decline by adopting more emissions-efficient technology, this would most certainly be far too little, far too late to ensure global warming remains below 2°C.

Decoupling, or the Radical Change We Need

Keeping global warming below 2°C requires more than an emissions-efficient economy; it requires a decarbonised economy. Increasing emissions efficiency means burning fewer fossil fuels for the same unit of output – decreasing the ratio of emissions to GDP. But the climate is affected by total emissions, which can rise even when the ratio decreases. Therefore, absolute decoupling is needed: emissions should be on a steady path towards zero, regardless of economic trends.
To understand why efficiency gains alone aren't enough, consider the aviation industry. Airbus and Boeing claim every new airplane model they release is the greenest yet, burning less fuel than its predecessors. Nevertheless, emissions from the aviation sector continue to grow (before Covid-19, of course). More efficient planes are excellent for airlines, because fuel is often their largest expense. Cheaper operating costs allow airlines to operate more flights. In the history of commercial aviation, the additional emissions of more flights have greatly outweighed the mitigating effects of more efficient planes.

Instead, economic activity needs to be completely independent from emissions. There are some hopeful signs. Electricity generated from renewable sources is increasingly able to compete on prices with fossil fuels. Accompanying the hype surrounding electric vehicles, Tesla overtook Toyota as the most valuable car company this July. Transport, electricity, and heat together account for almost three-quarters of global CO2 emissions. Decarbonising electricity and electrifying transport are big steps towards decoupling emissions from our economies.

But how do we ensure emissions reach net-zero by 2050? Perhaps surprisingly, we can learn some lessons from Econ 101. Environmental issues are a type of market failure: the natural environment is a public good without defined property rights. Moreover, GHG emissions arising from production and consumption are negative externalities, the cost of which (catastrophic climate change) is incurred by third parties.Luckily, measures to rectify these market failures already exist. Several countries and regions have introduced direct taxes on emissions, or cap-and-trade schemes (where polluters acquire and trade 'pollution permits'). These measures are a good start, but so far, they haven't cut emissions fast enough because they are, yet again, predicated on efficiency gains. A price on emissions incentivises polluters to reduce emissions only if doing so is cheaper than that price. A cap-and-trade scheme with annual reductions of permits until they reach zero in 2050 would be a more adequate mechanism. Providing a clear indication that emissions are no longer permitted after a specific date would incentivise businesses to adopt zero-emissions technology as soon as possible.

Simultaneously, the decarbonisation of electricity and transport requires massive investments into technological developments. These technologies need to be affordable, offering perhaps the most decisive argument why reaching net-zero emissions cannot rely on dismissing economic growth. With historically low interest rates, governments should provide funding for such developments wherever the private sector won't. The Covid-19 pandemic has shown us that governments are willing and able to take on debt and act decisively to combat a crisis. It is high time that the climate crisis provoked a similar reaction. ■

21ST CENTURY SOCIALISING

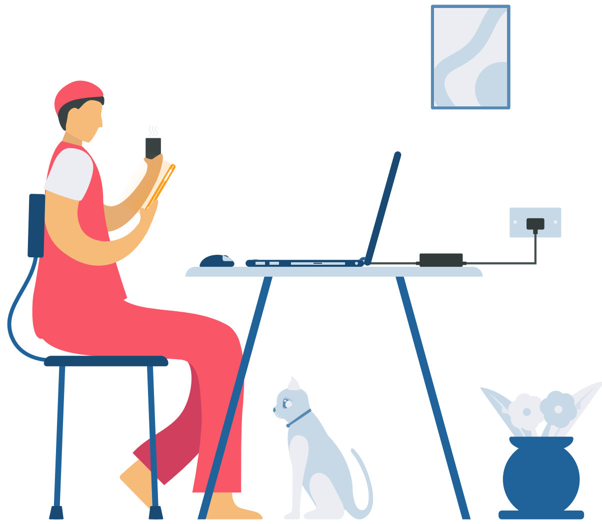
Our social lives are changing. Online platforms such as TikTok and Instagram are dramatically changing the way in which we connect to other people, and how we communicate, and the coronavirus pandemic has made communicating online a necessity rather than a luxury.

Amy Cook explores the rise and rise of Zoom in the midst of the pandemic, Nicole Timmermans looks at the most addictive app of 2020 (TikTok, of course) and Dušan Repčák questions the social an economic aspects of happiness in modern economics.

21st Century Socialising

What made Zoom® Zoom?

Amy Cook discusses the possible causes behind the take-off of everyone's favorite video-conferencing platform.



Vecteezy

If you're like me, you probably had never heard of the video-conferencing platform, Zoom, until earlier this year. It was also possibly the least significant change in your life at the time. Perhaps the only people more surprised by its surge in popularity were Zoom themselves. Chinese software engineer, Eric Yuan, founded the company in 2011 amid doubts from investors that the market was already dominated by likes of Skype, Google and Cisco. Despite this, use of the software jumped 30-fold in April, its value jumped from $15.9 billion to almost $60 billion, and earnings were roughly double what they had originally forecasted for March.

Yet, the success of Zoom can't help but feel like some sort of market failure. Yes, demand skyrocketed as national lockdowns were imposed, but ostensibly, the market was already dominated by tech giants, and in retrospect Zoom feels somewhat inferior to its competitors. It was not long until its reputation was clouded with concerns about security against hijackers, safeguarding schoolchildren and the company's close political ties to China. So why was Zoom so successful? Was there a minimum number of users who kick-started Zoom's journey to success? If so, how many were enough?

The Virulence of Video-calling

Zoom benefits from what economists call network effects. People need to coordinate on what software they use. The first time I used Zoom a friend had suggested it, the second time I made someone else download it. Such spill overs accelerate the demand side of the market, but also act as a barrier to new entrants. You'd expect Zoom to grow proportionally to the number of current users and with positive demand shocks, which is great news if you have a high number of current users and an inbound pandemic. But what were Zoom's numbers like pre-Covid? Let it not be misunderstood, Zoom has been valued at over $1 billion since 2017 and was already making headlines in its own industry. It had the capacity to grow but, nonetheless, it was still a little fish in a sea of sharks.

Things changed when a flood of new consumers entered the market in 2020. Everyone was seeking their preferred way to connect remotely. Network effects help explain growth, but not why Zoom was taking market share away from its competitors. One explanation suggested by tech experts is that Zoom offered a more 'accessible' platform. I am not fully convinced. For individuals, downloading Zoom does not feel logical when also confronted with the likes of FaceTime, WhatsApp and Facebook. For businesses, maybe, but the benefit of a stronger security platform is surely worth the cost of learning how to use it.

More Fashionable than Facetime?

For individuals like myself, with little to lose from risking a low-quality software, maybe it can be explained by some kind of availability heuristic. If you have heard about Zoom and are looking to download a video-conferencing software, it is likely Zoom will come to mind first. Zoom was fashionable this year, so to speak - though this would be a concerning reason behind the Government's choice to use Zoom for cabinet meetings. To the average person, the experience across platforms is not significantly different, suggesting most people would not spend time thoroughly researching before downloading (assuming most people are indifferent and one's choice of software is random) – if it's then good enough, it won't be deleted.

But this then begs the question: why was Zoom trending? Where was Skype's comeback in our hour of need? With high certainty, we can reject the possibility that the 30-fold increase in users all made the independent decision to download Zoom, suggesting no network effect took place. Combining some of the ideas above, it could be that a big enough group of people so passionate about Zoom indoctrinated their indifferent friends and let network effects take course. Maybe Zoom's background changing feature had some people so zealous about video-calling that the momentum could not be contained.

Isolation got us all Crazy?

However, this explanation still feels lacking. The pandemic increased general demand for video-calling software, but I suspect it also affected demand in other ways. The pandemic changed the lives of everyone to an unrecognisable point. People became uncertain and scared for the future. And whilst I wouldn't suspect a direct causal relationship between fear and downloading Zoom, hysteria certainly causes people to act more randomly than otherwise. All of a sudden, isolation from those around us gave a different purpose to video-calling. Downloading Zoom became as urgent as securing an online food delivery slot, or washing your hands. And Zoom felt like a new software able to serve this new purpose.

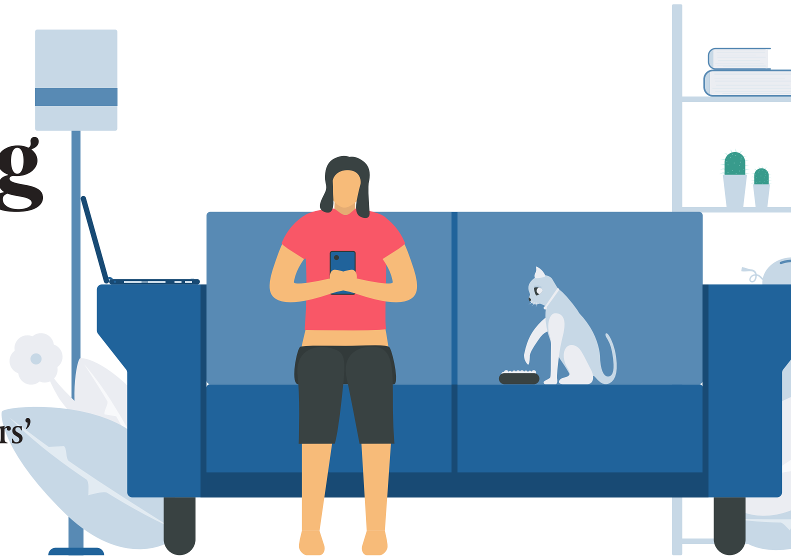
If you're looking to release a video-conferencing platform, to see such rapid growth you would probably need a far greater number of users than Zoom did back in January. But if you're lacking in numbers, a pandemic might also do. ■

21st Century Socialising

Nudging, Sludging and TikTok

WINNER OF THE INSIGHT WRITING PRIZE

Nicole Timmermans explores how TikTok exploits users' behavioural biases.


Vecteezy

'Digital crack cocaine' – the words used by a Forbes journalist to describe the Chinese app that allows users to share bite-sized clips. TikTok downloads have surpassed those of Facebook, Snapchat, WhatsApp and Instagram. Watching aesthetically pleasing pasta clips or frogs dressed as Harry Potter is innocuous fun, but how far will platforms go to retain user engagement?

The popularity surrounding the app has undoubtedly gathered media attention, most recently amid fears over user privacy and Trump's threats to ban. However, behind publicised political tensions lie covert and cryptic mechanisms designed to exploit humans where they are most vulnerable - their cognitive biases and heuristics.

Development of Nudge Theory

Economics Nobel Prize laureate Daniel Kahneman identified a spectrum of systematic biases present in decision-making, contradicting principles of rationality presented in neoclassical theory. His book, Thinking Fast and Slow, presents a dualistic model for decision-making. A dichotomy lies between 'System 1': intuitive and emotional thinking, subject to heuristics, and 'System 2': slower, analytical and conscious reasoning. 'System 1' dominates day-to-day choices. 'Nudges', as proposed by Richard Thaler and Cass Sunstein, build on this model, altering "behaviour in a predictable way without forbidding any options or significantly changing their economic incentives".

Recognising biases can encourage individuals towards 'better' choices, minimising hurdles and making it easier to save, recycle and exercise. By definition, a nudge is transparent, easy to opt out of and aims to improve welfare.

Stuck in the Sludge

Why are we seeing this go in the opposite direction? Whilst awareness of cognitive vulnerabilities can prevent us from falling victim to them, there also exists the potential to exploit and manipulate at a subconscious level. Such 'Dark Nudges' have been coined 'Sludges'. There's a lack of systematic analysis into how sludges are used to undermine public health efforts and maintain environments which favour corporate interests. TikTok is a relevant example of this, as it is primarily targeted towards children and teenagers.

TikTok's recognisable interface is characterised by immersive full-screen clips which lack text. Users flick through their 'for you page' for hours as AutoPlay starts a new clip with just a single swipe. This minimised physical effort ensures 'System 2' remains deactivated; decreased friction, increased engagement.

Behavioural Economics dictates that an absence of decision points increases consumption. By removing the decision to 'play' a video, developers exploit our tendency for procrastination, crafting a prolonged and more engaged chain of consumption. This can explain time-inconsistencies reported by users. By the time you look up from watching 'things-in-my-Edinburgh-flat-that-just-make-sense', you may not have noticed that an hour has already passed.

Most of us would just laugh this off, however a more sobering parallel is that between the shared mechanisms underpinning gambling and TikTok – intermittent reinforcement. Slot machines are designed to lack predictability, creating an equilibrium where a user will 'win' every so often, preventing boredom as a result of continuous wins or frustration as a result of continual loss. TikTok is no different. A user will watch a clip they enjoy (a 'win'), then wonder if the next clip will be as good, only to find it dull ('lose'). Rational behaviour would dictate the user leave the app. Instead, they ask 'what if the next clip is enjoyable?', reinforcing this addictive cycle.

To What Extent can we Hold Such Corporations Accountable?

Firms nudging via advertising, setting default choices and reducing alternatives is considered acceptable. There is a fine line between persuasion and manipulation, between a nudge versus a sludge. No objective, quantifiable value separates the two. The distinction is rooted, arguably, in the concept of liberal paternalism. As Thaler and Sunstein advocate, "it is both possible and legitimate for private and public institutions to affect behaviour while also respecting freedom of choice".

Social media is transgressing this boundary. Charitable bodies such as The Centre for Humane Technology, who question the ethics of consumer technology, are fighting to hold corporations accountable. But what can we do as consumers? We can set our own nudges to counter 'Dark Nudges'. Next time you're on the app, set timers or turn off notifications. Try creating your own decision points. In this way, we can recognise and fight those quiet and almost imperceptible changes in our behaviour. Help yourself say goodbye to Addison Rae and hello to autonomy.■

Lessons To Learn From The Happiest Economies

Duśan Repčák discusses the economic and social aspects of happiness, with a clear cut focus on the Nordic Model, Latin America and Costa Rica as a guide to being happy.

Economists may often condemn happiness as an aspect related purely to sociology and psychology, but its positive effect on labour productivity shows there is much more to happiness than what one may think. It seems natural to presume that the richer one is, the happier, but is that really the case? Nordic countries score the highest on happiness despite not being the very richest, and some of the richest countries such as the USA and Singapore are less happy than Costa Rica. So, what do Nordic countries and Costa Rica do differently?

The Nordic Model

Denmark, Norway and Finland have consistently topped the World Happiness Index, demonstrating the success of the so-called Nordic Model – a system based on social corporatism, collective bargaining, and a comprehensive welfare state. This success has been a thorn in the flesh for those who oppose any state intervention. Moreover, with Denmark being rated the best country for doing business by Forbes in 2018 and 2019, the Nordic Model is challenging the assumption that a substantial state discourages enterprise.

In Nordic countries, the welfare state is widely supported by the entire political spectrum. Government figures show that to afford such extensive social support, some of the highest tax rates in the world are needed: tax-to-GDP ratio is at 45% in Denmark and at 39% in Norway, in contrast to 24% in the United States. Citizens are healthily compensated with strong unemployment benefits, free education, healthcare, and childcare: which not only improve social mobility, but also help to redistribute national income.

Although there is no direct evidence of low income inequality explaining life satisfaction, high inequality can lead to less perceived fairness and trust, as well as a lack of social and economic opportunities, both of which are crucial factors affecting happiness. Nordic countries are among the most highly ranked on democracy-indices: citizens' perception of the freedom to make life choices is one of the highest, whilst the perception of corruption is among the lowest in the world.

Another notable aspect is the remarkable trust in government and the political system - and between citizens themselves. Since hardships are more prevalent among individuals at the bottom of the society, a trusting social environment does most to raise the happiness of those in distress, and hence delivers greater equality of well-being. Together, trust and social connections explain 60% of the happiness gap between Nordic countries and Europe as a whole.

For many economists, the Nordic Model may seem unrealistic and impractical if it were to be replicated on a larger international scale, since not many countries have comparable income levels. Perhaps unsurprisingly, the level of income is the most unequally distributed happiness factor globally – the GDP per capita of the top ten is 20 times higher than that of bottom ten.

Yet, the notion that Nordic income levels are necessary to achieve happiness could not be further from the truth. Across Latin America, countries have been scoring higher on the index than their income levels would predict, demonstrating that there is more to life and happiness than income. So, what are the lessons to be learnt from their happiness?

Lessons from Latin America

On the basis of its per capita income level, no Latin American country would be classified as developed. Given the persisting existence of social problems, such as corruption, high income inequality and high crime rates, one could suffer from a focusing-illusion bias to assume that Latin Americans must be unhappy due to these issues.

The warm, close relations between relatives and friends, the centrality of the family, experience and manifestation of emotions, a relative disregard for materialistic values, and weak political institutions has defined Latin American culture to this day. It is a society that has a slower pace of life and is not so focused on transforming nature or in generating economic growth, as it is in living and enjoying life within the existing conditions.

In terms of short-term happiness, such as smiling or laughing, learning something, being treated with respect, experiencing enjoyment, and feeling well-rested – eight of the top ten countries in the world rankings are Latin American. Family satisfaction is also one of the highest in Latin America.
Close and warm relations also extend to friends, neighbours, and colleagues. A larger proportion of adult people in Latin American tend to live with their parents than those from Western European countries. They visit their extended families more often, their life goal is to make their parents proud, and they deem watching children grow as the ultimate joy.

Despite the aforementioned, the economic and social conditions in many Latin American countries affect the long-term happiness and life-evaluations. Although Latin Americans are happier than what their income levels would predict, they are less happy than Europeans, who have better indicators in terms of income, income distribution, transparency, crime rates, education and health. However, one country is an exception – Costa Rica.

Costa Rica

In 2019, Costa Rica ranked as the 12th happiest country, outperforming richer European countries, such as Germany, the UK and France. It is not only a strong liberal democracy, but also has a relatively good welfare system, unlike its Latin American counterparts. Crucially, by abolishing its army in 1949, the Costa Rican government created space for the reallocation of funds to ensure universal access to health care and primary and secondary education.

Somewhat resembling the Nordic Model, the government provides many services that ensure the satisfaction of basic needs for most Costa Ricans, independently of their income. Costa Ricans show that the welfare state is possible even at lower levels of income. As is typical in Latin American countries, their high wellbeing is also attributed to a culture of forming solid social networks of friends, families and neighbourhoods.

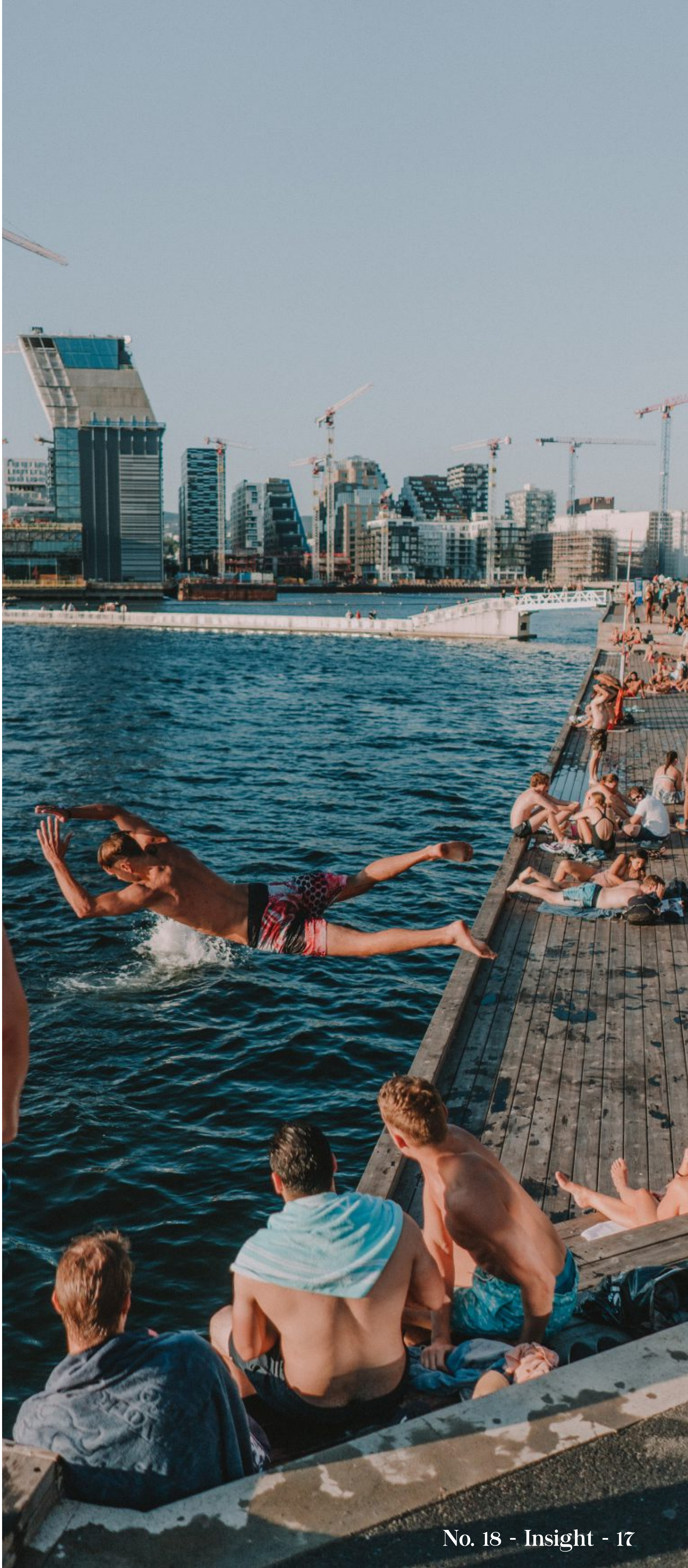
The most remarkable of all Costa Rican achievements might be their performance in the Happy Planet Index (HPI), which measures how well are nations doing at achieving long, happy and sustainable lives. It does that by considering life expectancy, wellbeing and inequality of outcomes, given their ecological footprint.

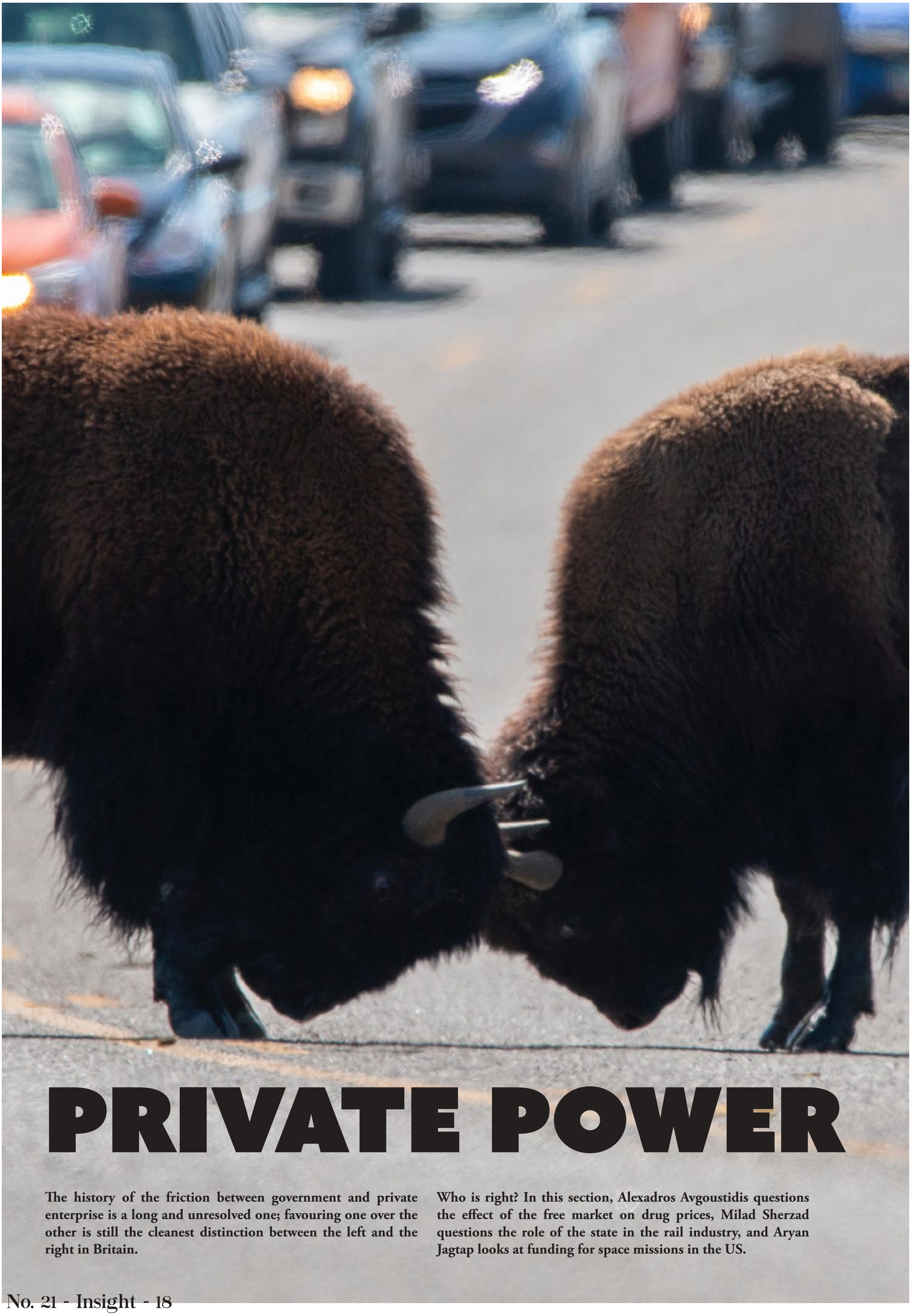
Costa Rica consistently scores the highest in HPI out of all countries in the world. This means, given how much Costa Ricans pollute the environment, they live the longest and the happiest lives. Today, Costa Rica produces as much as 99% of its electricity from renewable sources, and the government continues to invest in renewable energy generation in an effort to meet its goal of becoming carbon neutral by 2021.

In "The Stern Review", Climate change has been proclaimed the greatest market failure the world has ever seen. Yet, Costa Rica gives us a reason to be optimistic. A reason to believe that we are able, with the proper use of government intervention, to correct this market failure; and that we are capable of leaving a better and a sustainable future for next generations.

The Perfect Combination

Ultimately, the happiest countries should inspire us to learn how to live happier lives. Nordic happiness is rooted in some of the highest Human Development levels, lowest corruption rates and highest trust in the government, whereas Latin American happiness is rooted in close and warm social relations. Costa Rica combines aspects of the Nordic Model with the Latin American culture. Perhaps that is a combination all countries ought to be striving for. ■





PRIVATE POWER

The history of the friction between government and private enterprise is a long and unresolved one; favouring one over the other is still the cleanest distinction between the left and the right in Britain.

Who is right? In this section, Alexadros Avgoustidis questions the effect of the free market on drug prices, Milad Sherzad questions the role of the state in the rail industry, and Aryan Jagtap looks at funding for space missions in the US.

Private Power

The Declining NASA Budget: a Space Oddity

Aryan Jagtap explores the factors behind reductions in space research spending in the US and considers whether extra funding would be worthwhile or a fiscal black hole.

July 16th, 1969, is a date firmly etched into the history of our species as a defining moment of human endeavour and achievement. Apollo 11 landed on the surface of the Moon and heralded a new era for humanity – one in which we would roam the stars, explore other planets, and leave behind our state of Earthly confinement. It was in every sense a "giant leap'".

That, at least, was the collective sentiment back then, over half a century ago; sentiment that paid for the staggering $25.4 billion cost of the Apollo 11 program – about $152 billion in today's dollars, representing contributions of up to 4.4% of GDP in the 60's. Why then is NASA's current budget just $22.6 billion – less than half a percent of GDP?

The Space Race

It is poetic to imagine post-war American society driven towards scientific endeavour and pursuits for their own sake, but the reality remains more tedious. The US and the USSR were caught in the middle of the Cold War, and the race to conquer space became a pursuit for power and a sense of victory. The Soviets beat the US to space initially, sending the first spacecraft into orbit in 1957 and then the first manned spacecraft in 1961. The moon was the obvious next step, and the US managed to clinch a decisive victory there.

How Much Should we Contribute Now?

After the moon landings, it seems apparent that our collective interest in space decreased; and the amount of public money devoted to space exploration and research has consequently fallen. One factor is that space has recently been taken up by private enterprise, with companies such as SpaceX, Amazon and Virgin Atlantic building and looking to drive our endeavours to Mars. The role of private enterprise, however, will likely always be limited: simply because the risk and margin for error is so high, which often yields very low assurances of profit.

This is where the role of government comes in, so how can the US justify that less than half a percent of US spending goes towards space research? On the contrary, since they are not caught in a space race with another global superpower, how can the US justify $22.6 billion on space?

Opportunity Costs

One of the staples of virtually every climate change demonstration is someone holding a poster with the epigram, 'THERE IS NO PLANet B'. This echoes the common sentiment whereby we need to devote our focus to our planet, because it is the only home we have. Diverting more funds towards space takes away money that can be spent at home, trying to resolve issues such as climate change – arguably a much more pressing issue. Space is also notoriously difficult to work with and the possibilities for quick progress are low. In other words, it is relatively intractable, which should be a clear economic indicator of something that should not be given high priority.

On the other hand, the practical difficulties and low possibilities for progress can be seen as all the more reason to invest in space now, since it is not going to get any easier in the future without work now. And it doesn't take much money to contribute meaningfully to space research. A few years ago, Bill Nye wrote to then-President Obama asking for $1.5 billion dollars annually to help search for life on other worlds and find habitable planets - 0.03% of the current US budget. Even though we don't have a 'PLANet B', we want that to change. That will be more likely to happen if we pursue it with the same tenacity with which we pursued the moon landing in the midst of the cold war.

There are, of course, competing viewpoints based on the intrinsic value of scientific exploration for its own sake. Earth's seabed is relatively unexplored, and the world of the deepest oceans is as alien to us as the world of space; if more money does go towards exploratory science, should it not go towards our own planet?

Is There Life on Mars?

The prospect of life on another planet does promise to change the course of humanity in a significant way. In the end, our visions and values matter. Many scientists believe that becoming an interplanetary species is our next 'giant leap', a leap we should be warming up for now. Whether you agree, or believe that we should focus predominantly on Earth itself, might influence where you land on this debate. If we have some genuine collective vision for our future in space – worth going after now – then perhaps we should work harder for it. If, however, that vision is clouded by the fog of problems and endeavours closer to home, then half a percent of the spending budget might just suffice until that fog is cleared. ■

The Price Tag on Survival in America

RUNNER-UP FOR THE INSIGHT WRITING PRIZE

Alex Avgoustidis investigates the corporate power of Big Pharma and its ramifications for the American people.

"I was spending $2,880 a month just to keep myself alive – that was more than I was making even working 50 hours a week". This is the reality that Laura Marston, a Type 1 diabetic American citizen, has faced for the greater part of her life. Since her teenage years in the 1990's, nothing has changed about insulin: why, then, has the price of a vial increased by $254? Laura is not the only one struggling through the rising tides of prescription drug bills: millions of Americans have to live with the financial repercussions of their medical needs, and diabetics are not the sole victims of this financial threat.

According to 2018 data collected by the OECD, spending on medicines per capita in the US was a staggering $1,230. In second place was Switzerland, at a much lower $894, while spending in the UK was all the way down at $526. In the same year, Americans saw the average price per standard unit (IU/ml) for all insulin types at $99. So, when their Canadian neighbors could acquire the same product for 1/8 of the cost, Laura – and the millions of Americans who share her story – are left with infuriation and an abundance of questions.

To understand the intricacies of pricing in the healthcare industry, one has to tap into the world of industrialized power and corporate exploitation.

The Name of the Game

Before delving into the pharmaceutical pricing divide between the US and the rest of the world, it is essential to identify the forces which have given the American pharmaceutical market its modern shape: the forces of research and development, oligopolistic features, and patents.

Drug makers rarely hesitate to bet their bottom dollar on R&D, and frankly, no deep investigation is required for one to decipher the value that pharma giants put on research and development: in 2018, the healthcare industry amounted for 22% of global expenditure on R&D, and US corporations alone invested approximately $80bn. Drug manufacturers yearn for continuous technological developments in order to increase productive efficiency of their already-established products. Perhaps more importantly, R&D holds the potential to propel the industry towards the creation of new pharmaceutical consumer options that open up entirely new sources of revenue.

Looking at the market in its entirety, one needs to uncover its oligopolistic attributes to understand the actions of its participants. The pharmaceutical industry is disproportionately dominated by the US, holding 40% of the global market share in 2019, while the domestic market comprises 10 medicine manufacturing giants that generated $365bn revenue in 2020 alone. Thus, while the market might not be a pure oligopoly considering the number of 'players' in the pharmaceutical 'game', it becomes blatantly clear that the financial stakes are incredibly high for individual corporations, as they each cover a substantial portion of domestic demand. Competition between pharmaceutical moguls would be expected to drive down prices, alarmingly providing incentives for collusion within the market. Notably, insulin price-fixing between Eli Lilly, Sanofi, and Novo Nordisk has long been suspected, with the three companies currently under legal investigation.

Patents are also instrumental in defining power within the market, and account for approximately 80% of pharmaceutical revenue. Once a corporation in the US has a patent approved on a newly-crafted medicine, it becomes the sole manufacturing authority of that product. Ultimately, once the patent has expired, the drug becomes generic and all pharmaceutical actors get to provide their own version of the medicine to the market. However, this expiration date is often a minimum of 5 years down the line, and with corporations exploiting loopholes in the patent system, prices can surge hand-in-hand with the interest of the patent-holder. A clear example is Sanofi's strategy for Lantus insulin; having completed 74 patent applications, the corporation is trying to set the stage for 37 years of competition-free production.

A Hard Pill to Swallow

The argument over the source of higher pharmaceutical prices in America is reminiscent of the country's recent presidential debates: two completely distinct sides of the story and a lot of finger-pointing.

Pharmaceutical companies have consistently emphasized to lawmakers the implications of high R&D expenditures which, whilst qualitatively beneficial, induce significant production costs and raise prices. Manufacturers claim that the cost of R&D is solely incorporated into American prices, carrying the weight of innovation for the rest of the world. According to Big Pharma, lower prices in the US would entail lower-quality drugs on a global scale and thus, this disproportionate pricing fundamentally boils down to the size of the national market and the relatively higher wealth of the American consumer. Johnson & Johnson don't have much to lose if they charge lower prices in a relatively small, less affluent, country like Greece, but the stakes are much higher in a market of 330 million potential customers.

Additionally, drug manufacturers pass responsibility to pharmacy benefit managers (PBMs), who act as intermediaries between pharmaceuticals and insurers. PBMs can dictate which prescriptions are included in coverage plans provided by insurance firms, determining if the medication will be paid out-of-pocket by the consumer. They also hold immense negotiating power in introducing rebates, which are discounts on insured drugs. Negotiations, however, imply uncertainty and bureaucracy, and result in different out-of-pocket expenses for each drug manufacturer. If Eli Lilly's Humalog is not included in Laura's insurance plan, or its price is closer to the uninsured value, the manufacturer holds PBMs responsible.

Nevertheless, such predicaments fail to impress the public and scholars alike. In an industry that holds such financial power, many believe that not only do these pharmaceutical giants deliberately and collectively overvalue their products, but are also enabled to do so by flexing their negotiating muscle and exploiting political influence. In fact, USC health economist Darius Lakdawalla called the US drug market a "big hot mess", declaring prices as unrepresentative of the true cost of research and development, and creating unjustifiable pressure on the shoulders of medical patients in the US. One question remains unanswered for Lakdawalla and millions of Americans behind him: where do all these augmented profits go?

Holding the Purse Strings

While pharmaceutical spending on R&D is by no means negligible, drug giants invest their remaining, sizeable revenues in ways that question their corporate integrity. The BBC reported that the largest firms' quarterly profits are twice the size of R&D expenditure and significantly more resources are directed towards self-promotion and marketing. Secondly, ever-increasing sums are devoted towards the acquisition of smaller drug companies, which strengthens economies of scale and allows corporations to realign their portfolio assets. Thirdly, there is notable expenditure on buying back their own shares of stock. Economist William Lazonick from the University of Massachusetts Lowell discovered that from 2006 to 2015, 57% of the value of R&D spending was used to buy back shares by the 18 largest corporations in the market.

Data on the sector's lobbying power also reveals distressing insights. According to the US National Library of Medicine, from 1999 to 2018, the industry invested a total of $1.2 billion on contributions to state, congressional, and presidential electoral candidates, national committees, and outside spending groups. This hints to the unfair pricing criteria that facilitates high enough profits to enable such lobbying expenditures, but more alarmingly, it contextualizes the political influence these corporations possess.

Although pharmaceutical pricing has been condemned by Republicans and Democrats alike, the persistent inflationary trends on the price tag of survival, in combination with the corporate power of Big Pharma, make pessimism seem the reasonable lens for viewing American healthcare. Nevertheless, as the future of health in the United States remains uncertain, one truth prevails for Laura and the millions like her: the need for change.

Private Power

Airways, Utilities, Rail: How far Should Privatisation Go?

Milad Sherzad looks at the story of privatisation in the UK, taking lessons from the 1994 privatisation of British Rail, to learn the distinction between when privatisation is necessary and when it risks going too far.

The year is 1993; the UK has gone through nearly a decade of Thatcher and her privatisation journey but even she stopped short of privatising the railways, calling it a "privatisation too far". John Major and his cabinet, however, are pushing towards the legislation that would ultimately pull the plug on almost half a century of state-owned railways in the UK. Was it this decision that truly showed the extent of how far privatisation can go?

Nationalisation of industry in the UK

State versus private ownership is by no means a recent political or economic debate; it has ravaged our nation for countless decades and has culminated in the system we currently see today. Up until the second world war, most industries were barely touched by the state. However, the outbreak of conflict led the Government to take a more prominent role in key industries such as coal, energy and manufacturing; these decisions were made in order to help streamline planning and distribution in such a volatile time. Further, Attlee's Labour government, elected in 1945, pioneered this idea of nationalisation by setting out legislation to bring the Bank of England, transport, coal and many other industries under control of the state.

The Debate

Those in favour of deregulated, privately owned, invisible hand guided markets, argue that they create the best societal optimum by only producing what is demanded by a society, with limited waste and with profits being guided towards entrepreneurs, arguably creating incentives for people to take the risks in setting up business. On the other end of the spectrum are those that argue in favour of the state owning the means of production. By regulating the markets a state can ensure that the needs of the people are best met, there is better accountability of issues, prices do not over inflate, and in certain scenarios it can facilitate a loss-making industry that provides an essential service, something a private firm, by definition, would be unlikely to do. However, as you may have guessed, it's tough to find a country in the present day that represents either of these systems as most nations have opted for a synthesis of the two: a mixed economy.

The Thatcher Revolution

It was not until 1979 that we began to see a shift in the role of the state, starting with the election of Margaret Thatcher as Prime Minister. Thatcher's governments reversed many of the decisions of the Attlee ministries over the course of the 1980s, privatising British Airways, British Telecom and British gas to name a few. Her arguments at the time were centred on the stagnant economy and falling British status and respect on the World stage, claiming that privatisation would lead to more efficiently run industries, lower costs, and overall better quality and innovation. In a sense, her thinking was right: we saw failing industries revitalised. Quality of life has risen for many due to these changes of ownership however, benefits were not completely widespread. The impact of privatising the coal and steel industries unequivocally ended in tatters: entire communities were abandoned and shut down due to job cuts as a result of private firms not being able to sustain the industries and their sheer size. While these job losses and community destructions are not to be taken lightly, it could be argued that the industries themselves were operating at an inefficient point as a state industry, and privatisation allowed these industries to shift towards a more efficient point of market equilibrium. So, in a rather conflicting manner, we have seen that privatisation led to both simultaneous rises and falls in quality of life for people across the UK, and we must ask ourselves, is there a crucial factor at play in helping us understand at what point Thatcher should have stopped privatising?

Privatisation of the Railways: a Step too Far?

Although the privatisation of British Rail was not undertaken by Thatcher herself, it was no doubt inspired by her sweeping reforms of the 80s; when Major hammered the final nail in the coffin for British Rail, things began heading downhill. Arguably yes, it was a good decision: we saw passenger numbers rise dramatically from around 750 million journeys in 1995 to over doubling by 2015. While there are other factors at play here, we cannot ignore that fact that this dramatic rise contrasts with the figures of the nationalised British Rail, which was displaying dismal and stagnant passenger statistics over its last two decades in existence. Therefore, it can be argued that this privatisation was necessary to reinvigorate the British population and their passion for the railways, inspired by improvements made by private rail operating companies. However, these milestones of progress were marred by poor safety in the late 1990s and early 2000s, culminating in the renationalisation of RailTrack, the firm responsible for the maintenance of the track, signalling and certain major stations. We can view this action as the government realising that complete privatisation, at least in the case of the railways, was a step too far; safety shouldn't be bound by budgets. Another issue we've seen with railway privatisation has been the rather dramatic rise in fares over the years, with Britain's railways being named one of the most expensive in Europe, and on top of this all, the UK government finds itself spending more in subsidies for the railways now than it did back when it was under state control. Surely, these mass inefficiencies cannot be ignored when a key argument of privatisation was to resolve the inefficiencies of a state operated railway?

How Much is Enough?

If you hadn't guessed already, I'm in favour of not just renationalising the rail network in the UK, but creating a more prominent role for the state in certain markets/groups such as British Airways and the energy industry. The reason that I focus mostly on the renationalising of, or larger state regulation of, transport and energy industries is that they are crucial in the fight to tackle climate change; we can no longer solely rely on private firms to adjust their production and incur higher costs in the pursuit of a 'greater good', a pursuit of lower emissions. By allowing the state to take a more dominant position in these industries, it can use its financing abilities and impartiality to actively lower emissions and craft a better future market system that safeguards the environment. Therefore we can see that while Thatcher's privatisations may have been positive in certain aspects, influencing the rail privatisation was an enormous step in the wrong direction as we sorely need a reliable rail network that is cheap enough to the consumer to act as a strong competitor to road and air.

Lessons to Learn and Risks to Consider

My belief in increased state responsibility is grounded in my view that as a nation develops, its government becomes more socially responsible, less corrupt and ultimately should make more decisions that positively impact society rather than beautify the policymakers' careers. However, this view is quite a 'Shangri-La' of scenarios, especially with the marked rise of populism worldwide over the past few years. Populism no doubt acts as a limitation on how much control we should allow a state to have in markets, and we must exercise caution into the future. It undermines completely the idea of socially responsible governments as the policymakers will likely be in pursuit of prolonging their future careers, and their ultimate decisions risk not being in the best interest of the population. If we hand the state more control of certain industries, the risk of catastrophic failure rises under a populist government, specifically one that is ideologically extreme. The solution? Any amount of privatisation must be undertaken incrementally, in order to both limit risks of a sudden shift in power and to ensure that any decision, if resulting in failure, can easily be reversed. Fundamentally this applies to railway privatisation as incremental policy change in the 1990s would have likely prevented wide scale privatisation, and we would not be seeing the negatives that we do today. Ultimately John Major took a step too far with the railways, but it provides us with a lesson that we most certainly need to learn from. ■

Economics (still) has a Diversity Problem

Hazel Cranmer considers how the discipline should respond to the BLM movement.

Earlier this year, a movement gained sudden and momentous global attention. The Black Lives Matter (BLM) protests erupted in response to inhumane and fatal police brutality on a black man in Minneapolis. What grew out of it was much louder. It called for an uprooting, a reimagination, and a restructuring of law enforcement in the United States. It challenged the historic glorification of slave trading individuals and European colonisers. It critiqued the Eurocentrism and racism imbedded in our own curriculums. And it demanded more from white allies. With this, the lack of diverse voices in Economics and wider academic plurality within our discipline is called into question. For the field which concerns itself with who gets what and why, questioning Economics' diversity problem and consequent ineptitude for addressing issues of race and gender inequality deserves immediate attention.

What Problem?

In the U.K, an estimated 30% of all Economics bachelors are obtained by women, despite women making up 57% of all U.K. undergraduates. This figure is significantly lower than in mathematics, medicine and other 'STEM' subjects which, as part of a government initiative, have actively encouraged women to study. The numbers for racial minorities are mixed, with international applicants pulling up the diversity figure – but notably, entry of minority-ethnic British nationals is poor, and particularly low for black students.

Scrutinising student statistics gives insight into the long-term health of the field and may also serve to demonstrate its current weaknesses. Discovering why so few women and POC study Economics in higher education helps us understand the root of the diversity problem in modern Economics. Of particular interest is the disparity between British women and POC entering Economics and the interest of international students – with international applicants (including from the rest of Europe) proportionately more diverse in both respects. This suggests a fault more evident in the U.K. than abroad. And this disparity only narrows the higher up the academia ladder you climb.

The Impact of Underrepresentation

Economics consistently tops league tables for the highest earning degrees in the UK. The fierce social disproportionality of Economics graduates only serves to perpetuate the gender and racial pay gap and consequential raging wealth inequality. While underrepresentation has gradually narrowed in other fields, change in our discipline has been remarkably non-existent for 20 years. We must therefore ask: what is the societal impact of having a field dominated by one subgroup?

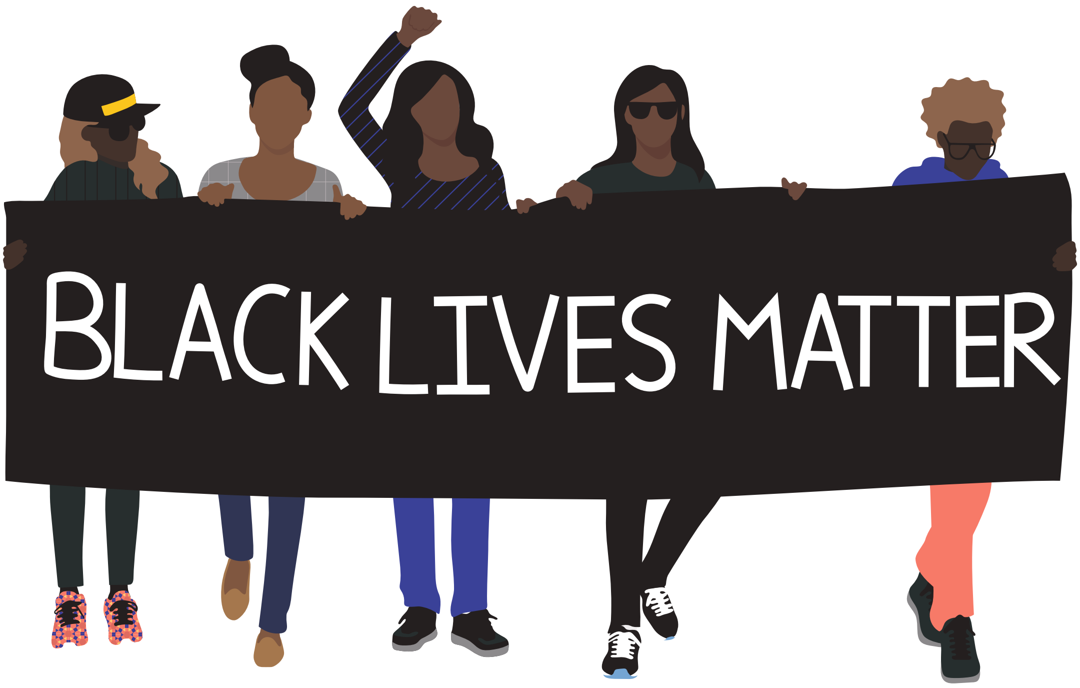
Underrepresentation of women and POC has wide social implications given the prominence of Economics graduates in government, central banks, and the civil service. This concern is echoed by Ross Warwick, a research economist at the Institute for Fiscal Studies (IFS) - "Ethnic diversity among economists matters particularly because economists often play an important role in the formulation of policy". Diverse groups have consistently been shown to deliver different, and more desirable, outcomes in business and policymaking. A diversity of experience, knowledge and perspective promotes fair and effective policies.

It is not difficult to envision the situation you produce with a homogeneity of advisers. One only needs to remind themselves that sanitary products continue to be considered 'luxury goods' and thereby charged higher VAT throughout the EU. Ultimately, the victims of flawed policies, are the ones who were not listened to in their design.

Narrow Academia

Grieve Chelwe, a Senior Lecturer in Economics at the University of Cape Town, argues the obvious consequence of a lack of diversity in the field is that the weakening of intellectual work. He argues that Economics has an 'Africa problem' and that much of the work done by economists in the Global North on development issues in the south are largely vacuous, highly simplistic and ultimately irrelevant in answering the most important questions. He opposes the nature in which western researchers travel to Africa to conduct experiments for the benefits of their own studies. He criticises the resource allocation disproportionately favouring economists in the Global North at the detriment of economists in the South especially when research projects concern the African continent.

In January 1970, a group of black economists wrote an open letter to the American Economic Association (AEA). They criticised colleagues who ignored discrimination in the profession and failed to consider racial inequality in their own research. In June of this year, over half a century later, the AEA issued a statement that "we have only begun to understand racism and its impact on our profession and our discipline." Within the field, it is rarely considered how issues of sexism, racism or xenophobia would impact statistical studies. In fact, of 105 papers in top journals testing for discrimination between 1990 and 2018, only 11% discussed the possibility that statistical discrimination might be based on odious beliefs.



Large scale field experiments as recently as 2018 have demonstrated the risk of discrimination for minorities within the British job market. Identical, fictitious applications were distributed and for every ten positive responses traditional British names received, a person with a recognisably African or Pakistani name received just six. Economics' failure to acknowledge societal discrimination is not only limiting academic research but threatens to have significant consequences for global development. Economics is, after all, a social science, and must stop ignoring society.

Breaking the Cycle

Academics have offered a series of culprits for the diversity problem in Economics. They point to poor leadership, institutional dysfunctions, discouragement from specialising in the study of race and gender, and a toxic professional culture. Esther Duflo, who recently became the first female economist to win the Nobel Prize, echoed some of these features, citing an "aggressive and macho" culture for the problem of underrepresentation. Yet she also highlighted what she believes to be widespread misunderstanding on what Economics actually is. People, she said, "have a misconception that Economics only deals with interest rates and growth rates". Research indicates she isn't wrong. And what's more, this misconception is greater in the US and the UK than throughout Europe and Asia.

A survey conducted at a Bristol school asked 16- and 17-year-old students to produce 'associated words' with 'Economics'. The most common answer? Money. What followed were variations of finance and business and even featured multiple mentions of 'percentages' and 'graphs'. Edward Miguel, an economist at UC Berkeley, describes what this narrow perception of the field implies - "People equate economics with business, so they think if you study Economics, you're trying to game the system or make it in the system". If the majority of students considering higher education do not view Economics as a tool to change society (as Miguel believes it is), it will not attract students who want to. And, if we believe a greater share of those who seek societal change are minorities, women, or those from lower income backgrounds, this helps explain the lack of diversity of Economics students.

If the answer is 'women and POC are not interested in Economics', is there a case for intervention? Our justification for intervention is typically made on the grounds of market failure, and information failure is clearly apparent in this case. A field experiment applied across nine US colleges demonstrated what happens when Economics is communicated differently. Two versions of emails were randomly sent to incoming female and minority first years. One email was simply a standard welcome message. The other included information "showcasing the diversity of research and researchers within Economics". Results found that female and minority students who received the email advertising Economics' diversity saw a 20% increase in their first-year completion rate - a pretty significant result for such a small intervention.

Tim Hartford, the 'Undercover Economist', reiterates the urgent need for economists to be better communicators. When the U.K. voted to leave the EU despite the near unanimous opposition from economists, much of the blame was directed towards the population. Hartford criticises this attitude and calls on economists to change the way they publicly communicate, advocating for greater engagement and the consequential abolition of the elitist nature Economics inadvertently presents.

Miguel is more determined with reform; he argues Econ 101 does not give students the view that their discipline is a force for tackling some of the greatest societal issues. Entrenching concepts of inequality, development or climate change from an early stage promotes student interest to pursue Economics further. The discipline must not only change the way it communicates but change the way it is taught. Or else, we face another 20-year stagnation for diversity in the field. ■

Econ School

Economic Possibilities for Our Grandchildren

The world as we know it is undergoing a dramatic remaking. We are facing what at times seem like insurmountable challenges – a global public health crisis, an impending climate and ecological crisis, rising inequality. As Milton Friedman once said, “only a crisis – actual or perceived – produces real change”. Is this moment just a hiccup on the economy’s trajectory or will it shape the economic possibilities for our grandchildren?

Building a fairer and more sustainable economy is going to need a unique blend of both economic analysis and vision. We often neglect the latter, perhaps at the detriment to society. At times of such great uncertainty, the intellectual endeavour should not just be about what is but what could be.

Inspired by John Maynard Keynes’ 1928 essay Economic Possibilities for our Grandchildren and the need for change and vision now more than ever, we asked academic staff and students at the School of Economics: “What will the world economy look like in 100 years?”

Dr. Jonna Olsson, Lecturer

Keynes’ famous prediction that his grandchildren would work 15 hours a week turned out to be wrong. First of all, Keynes never had any children, and thus no grandchildren, and second, most of us still work more than what Keynes imagined: two days of work and five days of rest every week. However, even though he was wrong quantitatively, he was right qualitatively: the big picture over time and across countries is that we are working less and less. I think this will continue. Economic growth will lead us as a society to choose more leisure, not only more consumption. It might not necessarily be fewer hours in the weeks we work, but more vacation, more parental leave, later entry into the labour market for the young and earlier exits into retirement for the old. Maybe some people will not work at all. The challenge will be to not let this unequal work burden translate into inequality in terms of welfare. But I am optimistic: we will figure out a way. In 100 years, we will wonder how we ever arranged our society without a universal basic income.

Dr. Ahmed Anwar, Lecturer in Economics

I’m afraid I am really pessimistic about the immediate future but in 100 years everything will be great! We may even have solved the economic problem as Keynes put it. We will start by learning some lessons from the impending economic and social turmoil that will afflict us for a decade or two.

We will learn the simple lesson from economics that we must accumulate the Earth’s capital if we would like for it to produce for us a greater income. We will nourish again the soil and respect again the seas.

We will learn that the biggest hindrance to economic and social progress is power. Without it in markets we will realise Adam Smith’s vision of a perfect coordination of economic activity. Without it in social relations we will have liberty for all.

100 years from now: no tariffs or subsidies, no governments to levy them, no borders, free movement, decentralised markets, decentralised monetary systems, decentralised everything. We will then have the economic and social progress that will lay the conditions for Keynes’ vision for human progress or even better, Oscar Wilde’s (in his 1891 The Soul of Man under Socialism).

Dr. Sean Brocklebank, Senior Teaching Fellow

Individually, I'd bet on any of these seven trends continuing, but collectively I'd only bet on five or so of them, because probably a couple will reverse (but I don't know which ones).

- Average incomes will be a lot higher in all regions of the world.

- There will continue to be cross-country income convergence.

- That said, there will be divergence within regions – like Sub-Saharan Africa, with some countries (Ethiopia?) racing ahead of their neighbours.

- There will be more currently-developing countries which fully catch up to living standards in places like France, Germany, or Japan. My top bet is Vietnam.

- We will find ways of making cheaper skyscrapers, so big-city urban living will become relatively more affordable, but the price of land will go up a lot.

- Manufacturing will continue to decline as a share of GDP. Few countries will grow rich in manufacturing (maybe Vietnam though).

- Average retirement will continue to lengthen (even with higher retirement ages).

Prof. Simon Clark, Professor of Economics

Maynard sighed. He had no idea how to complete his assignment. 'Show how economics can explain the end of the world.'

How had it come to this? Where did it all go wrong? Was it President Harris's decision, almost 100 years ago, to ban fracking and go deep green? That had certainly hastened the break up of the USA. The new Mid West Confederacy, free of regulations, quickly overtook China in the race to destroy the atmosphere.

Or was it the inability to contain the spread of COVID-36? It had killed so many, especially in Europe after the libertarian victory in the culture wars of the 2020s.

But he was glad he was studying Economics. Its neat theories, rigorous quantitative methods, and faith in human reason, were strangely comforting. And as the fires in the forest outside continued to burn, he felt a certain peace, that the best of all possible subjects had no problem in explaining this, the best of all possible worlds.

Justinus Steinhorst, 4th Year Economics and Politics Student

Aside from climate change, artificial intelligence strikes me as the most transformative dynamic of the coming century. Where we will end up in 100 years depends crucially along which path this technology will develop. The grim scenario is a world of monopoly power, in markets and political life alike. Machine learning thrives on scale, a characteristic inherent to centralised systems. A world of even greater political and socioeconomic inequality is a very realistic prospect in this case. However, if we rein in these darker tendencies, adapting our laws and institutions, we can channel AI into a force for good. It could enable an economy where machines take over mundane tasks, yielding astronomical productivity gains – something advanced economies have been struggling with for decades. It would allow us to focus on our comparative advantage in intangible skills such as creativity, empathy, critical thinking and vision – the very things that make us human.

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