

Deloitte Monday Briefing: It's time to value the environment

A personal view from Ian Stewart, Deloitte's Chief Economist in the UK. To subscribe and/or view previous editions just google 'Deloitte Monday Briefing'.

* Through the vast majority of human existence homo sapiens held little power over nature. Efforts by our ancestors to “tame” nature were modest and had little lasting effect. In perhaps 200,000 years of human existence it has been only in the last 250 or so years, since the industrial revolution, that human activity has impinged on nature. Industrialisation, economic activity and a rising population have taken a toll.

* A recent report by Cambridge economist, Professor Sir Partha Dasgupta, lays bare the scale of the damage. Natural capital, the stock of natural assets including soil, air, water and all living things, has been drawn down by human activity. The most arresting of many extraordinary facts in the report is about the speed of that process.

* While the world was becoming richer, more educated, healthier and more populous, we were depleting the environment. The report estimates that the stock of natural capital per head of the global population has fallen by 40% in less than 30 years. This is a new era in humans' relationship with the planet. In 2000 the atmospheric scientist and Nobel Laureate, Paul Crutzen, coined the term the ‘anthropocene’ to describe this new epoch in which humans' impact on the planet rivalled nature's.

* Humans, and the livestock we rear for food, now constitute 96% of the mass of all animals on the planet. 70% of all birds are poultry for us to eat. Extinction rates are judged to be 100 to 1,000 times higher than the average rate over the past tens of millions of years. Climate change is the most obvious form of self-inflicted harm caused by human activity, but it comes in many other guises.

* The loss of plant species reduces the natural stock from which new foods, medicines and biofuels can be drawn. A report by the Royal Botanic Gardens at Kew last year found that two in five of the world's plant species are at risk of extinction as a result of the destruction of the natural world. Urbanisation and population growth increase the risks of zoonotic transmission of diseases, from animals to humans, as appears to have happened with COVID-19. Deforestation, climate change and overuse have led to the degradation of land and desertification. CO2 emissions have increased the acid content of the oceans, disrupting sea life and threatening aquatic food chains.

* Professor Dasgupta observes that we are extracting natural capital at a faster rate than it is regenerating. In this respect the world is on an unsustainable path. The report looks to a tried and tested solution. Governments have long priced harms in areas such as atmospheric pollution, workplace safety and water quality. Regulation, or penalties for infractions, are then calibrated to drive changes in behaviour. In the economic jargon policymakers internalise, or charge for, the externality, or damage.

* But Professor Dasgupta wants to take these instruments and apply them comprehensively, with governments putting a value on the earth's stock of natural assets and accounting for the effect of human activity upon it.

* This is hugely ambitious, and the practical problems are legion. The same could have been said about climate change at the turn of this century. Since 2015 190 countries have formally joined the Paris Agreement to reduce greenhouse gas emissions and to limit the increase in global temperature to two

degrees Celsius in this century. Among major emitters only Turkey, Iran and Iraq have yet to join. The world has moved from principle, to target and now action.

* Biodiversity is a relatively modern term, but concern about the depletion of natural resources is as old as industrialisation itself. In the 18th century Thomas Malthus argued that abundant harvest would generate rapid population growth that would, in turn, exhaust agricultural capacity, triggering disease and famine. The basic environmental problem, of individuals depleting a common resource, such as grazing land or fishing stocks, to the detriment of all – the so-called tragedy of the commons – was first described by the British economist William Forster Lloyd in 1832. The preservation of open spaces, the building of modern sewerage systems and the regulation of atmospheric and water pollution in the 19th century marked the start of the modern environmental movement. In the 1970s the Club of Rome, a group of academics, policymakers and industrialists, was highly influential in shaping opinion on the environment. Its first report, “The Limits to Growth”, prefigured the Dasgupta report in arguing that resource depletion posed a growing threat to economic growth. It sold 30m copies.

* For rich countries there have been many improvements. In London concentrations of suspended particulate matter, mainly soot, smoke and dust, which are easily especially injurious to human health, have fallen from a peak of over 600 micrograms per cubic metre in 1891 to 17 today. (The Great Smog of 1952, which lasted just five days, is now estimated to have led to 10,000-12,000 deaths.) The Thames, which the Natural History Museum declared was, “biologically dead” in 1957, now hosts fish and the occasional seal.

* Yet as the Dasgupta report makes clear, the overall environmental score card is negative. (Even in London levels of fine particulate pollution are too high in some areas and plastics are endemic in the Thames.)

* Properly accounting for natural capital is the first step to preserving it, much as the understanding of climate change is driving reductions in CO₂ emissions. Such valuations are unavoidably imperfect. Many aspects of nature are invisible or mobile and the effect of human activity can be distant and hard to trace. The report describes how soot emitted from South Asian kitchens affects the circulation patterns of the monsoons and of fish in the North Sea consuming microplastic originating in the Bahamas.

* Sustaining biodiversity requires action on many other fronts. The near doubling of the world’s population in the last 40 years has been one factor in the depletion of natural resources and the Dasgupta report recommends investing in community-based family planning to give women greater reproductive autonomy.

* Science and innovation are likely to offer many of the solutions. Genetic modification offers the prospect of more resilient and abundant crop varieties (something that has been more controversial in Europe than in the US or emerging markets). Cultured meat substitutes could play a role as could the creation of more factory-based food products.

* Vertical farming – growing crops indoors, under special LED lighting, often in water, with minimal pesticide use and human intervention – is growing rapidly, sometimes in improbable places. Going underground grows salads and herbs in a disused air-raid shelter 33 metres below ground in south London for the capital’s restaurants and consumers. Patterns of consumption will need to change. Shifting from animal and dairy consumption to a more plant-based diet would help.

* Yet the Dasgupta report warns against the idea that there is a complete fix to the challenges we face. It argues that our economic possibilities are circumscribed by nature's workings: "no amount of technological progress can make economic growth as conventionally measured an indefinite possibility. Ours is inevitably a finite economy, as is the biosphere of which we are part".

For the latest charts and data on health and economics, visit our COVID-19 Economics Monitor:
<https://www2.deloitte.com/uk/en/pages/finance/articles/covid-19-economics-monitor.html>

OUR REVIEW OF LAST WEEK'S NEWS

The UK FTSE 100 equity index ended the week up 2.3% at 7,129. Markets were buoyed by rising commodity prices, positive economic data and the Bank of England signalling it would maintain an accommodative stance.

COVID-19

- * The UK has administered 35.4m first vaccine doses and 17.7m second vaccine doses, up by 0.9m and 2.4m, respectively
- * This translates to 77 doses per 100 people. Equivalent data for other countries: Israel (121), Chile (81), US (77), Germany (41), France (37)
- * Random testing performed by the ONS suggested a decline in infection rates in England, Scotland and Wales in the week ending 2 May. Infection rates in Northern Ireland were level
- * The UK announced that under-40s will be offered an alternative to the Oxford-AstraZeneca vaccine due to the higher risk of blood clots among younger adults
- * US president Joe Biden proposed that vaccine patents should be suspended during the pandemic to boost vaccine production. German chancellor Angela Merkel and much of pharmaceutical industry disagreed
- * Some 63% of new cases and 41% of all confirmed deaths are now occurring in Asia, in large part due to significant outbreak in India
- * A sub-type of the Indian variant thought to be just as transmissible as the Kent or UK variant was designated as a variant of concern by Public Health England
- * The UK is doubling its laboratory capacity to test vaccines against new variants
- * Canada approved the Pfizer-BioNTech vaccine for use in under-16s, the first country to approve any vaccine for use in children under 16
- * 12 countries and territories including Portugal, Iceland and Israel were added to the UK 'green list', allowing people travelling from these countries from 17 May to avoid quarantine
- * Turkey, the Maldives and Nepal were added to the 'red list', requiring travellers from these countries to quarantine in a hotel after entering the UK
- * Germany will permit people who have been vaccinated to ignore curfews and restrictions on socialising despite a large proportion of the population not yet

Economic developments

- * The US economy added 266,000 jobs in April, a much lower number than in the previous month and significantly below expectations
- * The US unemployment rose to 6.1% in April, up from 6.0% in March
- * US exports rose 6.6% from February to March. Imports rose 6.3% over the same period, demonstrating the growing momentum in the global economy
- * The Bank of England revised up its forecasts for the UK. It now expects growth of 7.25% this year, up from 5% three months ago
- * Euro area retail sales in March were up 2.7% from the previous month, driven by strong sales in Germany

- * UK banks' mortgage lending expanded by a net £11.8bn in March as people rushed to avoid the stamp duty deadline, since extended. This monthly increase is over twice that typically seen pre-pandemic
- * The largest US fuel pipeline was disabled by a cyber-attack. It supplies 45% of fuel used on the E. coast

Policy response

- * The Bank of England kept interest rates on hold and announced no changes to its asset purchase programme
- * The US Federal Reserve said that "The Archegos event illustrates the limited visibility into hedge fund exposures and serves as a reminder that available measures of hedge fund leverage may not be capturing important risks"
- * US treasury secretary Janet Yellen said that interest rates may "have to rise somewhat to make sure that our economy doesn't overheat" before later clarifying her remarks

Business news

- * Games consoles manufacturers Nintendo and Sony warned that the global shortage of semiconductor chips will likely constrain their production this year
- * The UK National Cyber Security Centre, part of GCHQ, warned that smart city technology may introduce vulnerabilities that allow for surveillance or disruption by foreign powers
- * Booking.com chief executive Glenn Fogel warned that prices for summer holidays this year are likely to be higher than normal as pent-up demand meets reduced capacity
- * 43 of the 50 largest employers in the UK do not plan to bring staff back to the office full time, according to a BBC survey
- * UK clothing retailer Next said that it expected the post-lockdown surge in sales to be "short-lived"

Politics

- * The Conservative Party won a by-election in the northern English constituency of Hartlepool, formerly a Labour stronghold
- * The Conservatives also made gains in local elections, largely at the expense of the Labour Party
- * The Scottish National Party fell one seat short of a majority in Scottish parliamentary elections. However with the support of the pro-independence Scottish Green Party, there is a majority in favour of holding a new referendum
- * Scottish first minister Nicola Sturgeon vowed to hold another independence referendum in the first half of her five-year term
- * French fishing boats blockaded the main port on the Channel Island of Jersey, angry about a new licensing system to fish in its waters
- * The EU claimed that Jersey's new licensing regime for fishing was in breach of the post-Brexit agreement between the EU and the UK
- * The UK and India agreed to strengthen economic and political ties under a new "strategic partnership"

And finally... German media has reacted with incredulity to the news that Dubai is planning to host an Oktoberfest beer festival after the famous event in Munich was cancelled for a second year. According to reporting in the Times, one individual described it as being "like an election rally in Pyongyang" – three sheiks to the wind

Regards, Ian

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