## **Chapter 9**

# **Unrealistic Approaches**

We share the goal of environmental activists to reduce the world's reliance on fossil fuels. Yet we disagree about the means to achieve this end. In this chapter, we will explain why we believe conventional climate activism — no matter how high-minded — has not worked. This requires brutal honesty. Our task is, after all, to steer an entire planet. If you are an activist, we hope you will hear us



out, even if you won't ultimately agree with us. In this case, we hope we will be wishing one another success.

Global warming is not a problem of this or that country. If it were, it would be much easier to solve. Because climate-change is global, it does not matter whether this or that country reduces its emissions. It only matters whether humanity reduces the sum-total of its emissions. Therefore, within-country battle victories have mostly been <u>Pyrrhic</u>. Worse, we believe the evidence suggests that current activist approaches will not reduce global GHG emissions in the future, either.

Let's briefly count up the approaches that have been central to much climate activism before we discuss them one by one in greater detail.

- We love the idea of a clean-energy economy. We even sympathize with "just say no to fossil fuels" sentiments. But unfortunately, clean energy cannot entirely replace fossil-fuel energy for at least a few more decades especially in poorer countries.
- We love the idea of a global CO<sub>2</sub> tax, the center piece of the integrated assessment models of the previous chapter. But unfortunately such a tax is dead not just *on* but *before* arrival. This is not a deep insight but a self-evident one like "the emperor has no clothes." A global CO<sub>2</sub> tax requires a benevolent world government that does not exist.
- We love the idea of international climate treaties. But unfortunately countries and their citizens will not sign onto and enforce treaties that require large painful sacrifices. And the <u>problems of the day</u> (like immigration, jobs, health care, economic competitiveness, terrorism, or wars) make better election topics than carrying through decadelong sacrifices demanded by the United Nations. Climate talk helps politicians get elected. Executing climate sacrifices does not.
- We love the idea of greener cities and electric cars in rich places like California. But unfortunately, the real problems are elsewhere. Many of the biggest potential future emitters have not even come online yet.
- We love the idea of taking responsibility for one's carbon footprint. But unfortunately, personal footprint aspirations are like New Year's resolutions. We consider it counterproductive for activists to place their faiths and our collective future to eight billion such resolutions.
- We love the idea of less poverty and inequality. But these are not primarily climate-change issues. Bundling all social ills into one package is more likely to favor the status quo. It will lead them to fail together and it is a recipe for inefficient spending by the politically connected.

If the goal of climate activism is to feel good about oneself advocating, these approaches may succeed. If the goal is to reduce  $CO_2$  in the atmosphere by meaningful amounts, they will not.

When you are on the Titanic after the iceberg collision, there are a whole lot of things you should not do: You should not be rearranging the deck chairs. You should not be thinking about better ship designs. You should not be proposing more lifeboats. Instead, you should work to make the lifeboats ready. You should pack them as efficiently as possible. And you should worry about the other stuff later — yes, even about the fact that some passengers will go down and die. Sometimes, problems are so difficult that there are no great solutions. Pick the best alternative you have.

## 1 Why It's So Difficult

We agree that the world should wean itself off fossil fuels as quickly as possible. There is nothing healthy about them. They already kill millions of us with their particulate emissions and devastate the environment.

The task of converting energy and agriculture to carbon-free enterprises will rank among the biggest tasks ever undertaken by humankind. Nothing about it will be small or easy. Unfortunately, many activists seem not to understand what they are asking for. And maybe they do not want to. They seem as much in denial of reality as many fossilfuel proponents are in denial of climate change. By pretending that the transition is easy or by turning off the spigot too fast, en-



On the bright side, since the collapse of the modern world due to climate change, we've had no trouble attaining zero carbon emissions.

vironmentalists run the risk of creating a public backlash that could set back the process for decades.

*Even if* the world could agree to cut emissions (which it cannot), global warming cannot be stopped. Worse, possible temperature reductions are modest (though not small). International negotiations are about *slowing* global warming by 10–20%, a reduction in expected warming from about 3.0°C to about 2.6°C, over the span of two generations. The world will continue to warm and the Arctic will continue to melt. Today's electorates will notice global warming but they will not notice a difference that their sacrifices will make.

The prize for economic sacrifices today is not the elimination of global warming. It is a modest reduction. The public does not want to hear how much they will have to sacrifice for it for this "little." Which <u>leader wants to explain honestly to the public</u> — especially in poorer countries — what they need to give up to obtain this 0.3–0.4°C? And even this is beside the point. Our book's theme is that the OECD (including the US) could only hope to reduce warming by 0.05–0.2°C with radical decarbonization and 0.02–0.1°C

with aggressive decarbonization. These are not our numbers. They are the numbers implied by the IPCC RCPs and the share of world emissions of the OECD. Which leader wants to explain this?

Some environmentalists want to push to overshoot and spend a lot more to go clean even faster. The integrated assessment models teach us that the world is best off with a balance between cutting back too quickly and not quickly enough. The humanitarian consequences of turning off fossil fuels too suddenly would be terrible. There are eight billion people already born, and another 50% in the making. They rely on fossil fuels not primarily out of moral failings but out of necessity. In 2020, fossil fuels accounted for 85% of humanity's primary energy (Figure ??). It is not an option for the populations of the world to go back to nature, to the planet that had to support a population of only 1.6 billion at the end of the 19th century. The 8 billion people here today want modern lives, which means more energy — and clean energy cannot give it to them yet.

It's vital now to pursue and promote viable solutions that can maintain public support for a long time. Laying this out clearly is the point of this chapter.

### 2 Why A Global CO<sub>2</sub> Tax is Unrealistc

To hasten the transition from fossil fuels to clean energy, economists have always strongly advocated a greenhouse gas or fossil-fuel tax. As we explained in our previous chapter, the most common assessments are that this tax should start around  $50/tCO_2$  and ramp up to  $200 \text{ to } 500/tCO_2$  over the decades. Unfortunately, we do not see much chance of this happening — the centerpiece of many environmental debates.

In theory, we agree with our colleagues that if the world had a benevolent dictator — not afraid of voting majorities and lobbies — the global-warming problem could be solved by one global tax appropriately set (roughly) at the social cost of pollution. It would produce the right incentives. Being global, such a  $CO_2$  tax would induce companies and industries to change. They could not lobby or replace the local government to reduce the tax or escape the tax by moving operations to another country.

#### 2. WHY A GLOBAL CO<sub>2</sub> TAX IS UNREALISTC

Activists,<sup>1</sup> environmentalists, climate scientists, and economists have been engaged in seemingly endless arguments about whether the optimal world tax should start at  $30/tCO_2$  or  $60/tCO_2$ , and how quickly it should rise in the decades after. (It is negative in real life.) All of them are living in a fantasy world worthy of the academic ivory tower. There is no world government that could institute a global tax.

Is the threat of global warming so urgent that humanity has no choice other than to establish a world government? Are you ready for one? Are you ready to submit to the consequences? As for us, we are not. Indulge us with an imaginative excursion into why this is so.

Start by asking yourself who should appoint the world government. If it is elected by the people at large, it would surely not reflect the interests of the 1 billion people in the West, mostly ruled by <u>Modernity</u> and <u>Enlightenment</u>. Instead, it would be dominated by coalitions of the 1.5 billion Chinese, 1.5 billion Indians, 1.4 billion Africans, 1.6 billion Muslims, etc. If (Western) democracies are any guide,



Mister Secretary-General, U.N. Ambassadors, Dictators, Fanatics, Madmen...

people would band together in parties that act as tribes and outvote other cultures and regions. If instead a world government were to be elected by countries as they exist today, it would be dominated by a majority of dictators and demagogues. It could end up like the <u>UN Human Rights Council</u>, which regularly heaps praise on North Korea, China, Iran, Saudi Arabia, Cuba, and other such beacons of human rights and condemns the United States and Israel.

Nevertheless, let us assume for a moment that a <u>benevolent dictator</u>, with <u>Western enlightened values</u>, did manage to take world power. On whom

<sup>&</sup>lt;sup>1</sup>A few activists have even been arguing against <u>capitalism</u> and for a new world order to save the planet. Although capitalism has its drawbacks, we shudder thinking about how any alternative would be conducted in the real world. Churchill's statement that "democracy is the worst form of government — except for all the others that have been tried" applies to capitalism as an economic system, too.

should this dictator impose GHG taxes? You may quibble with our numbers, but the rough basics are always going to be as follows.

As we calculated in previous chapters, the cost of aggressive  $CO_2$  abatement today would have to be on the order of about one month of rent. About twothirds of the world's population — the poor people in most countries, including the West — do not have the resources to afford such added taxes. The average household outside the OECD earns only about \$5,000 per year. Most of these households do not have the means to pay one extra month's rent to fight global warming, even given their lower rents. The required contribution could amount to as much as 20% of their disposable income. Poorer nations would almost surely insist that the cost should justly fall more, if not entirely, on the <u>richer countries</u> who have benefited from decades of exploiting fossil fuels.

Yet even the median household in the West earns "only" about <u>\$50,000</u>. Its disposable income, i.e., after existing taxes, food, rent, health care, etc., is typically only a small <u>fraction</u> of this income. If the global dictator pushed the burden mostly or only onto households richer than the median, these would have to give up about, say, two months of rent — as much as one-third of their disposable income. You might feel that giving up the annual summer vacation is well worth rescuing the planet, but few households will likely share *your* "warm" feelings for such efforts. The majority would have to agree.



I know you all paid your taxes last month, but since then we've had tax *reform*!

It is good news that <u>polls</u> suggest that very few Americans still believe climate change is <u>fake news</u>. The average American indeed <u>worries</u> about it (as do <u>60% of younger people around the world</u>). It is bad news that the most favored suggested sacrifice by Americans is <u>\$1/month</u>! Only 28% would pay \$10/month. To share proportionally in fighting climate change would require 10–100 times that much from the average

American. Our prediction is that Americans would simply not vote for such change.

Let's open our eyes. From watching news coverage, it seems that climatechange activists tend to be younger, more educated, higher-income citizens of Europe or blue states in the United States. Few of them seem to believe that they should be principally responsible for paying to combat worldwide climate change. Their typical view seems to be that the tax should fall on <u>fossil-fuel companies and individuals who got rich investing in and trading</u> <u>fossil fuels</u> (often from redder states in the United States) and be (somehow automatically) shared by other governments around the world.

They understand neither that the rich countries are not even half the problem nor that there are not enough oil barons to cover any meaningful fraction of the costs of worldwide withdrawal. The burden would have to fall mostly to the middle class in the developed world, plus everyone else in other countries somehow, to shoulder most of the cost. The oil&gas industry will not be rich enough — especially if the plan succeeds.

We would be curious to learn whether even the highest-paid blue-state climate-science professors — who may earn a gross income of <u>\$200,000</u> <u>per year</u>, with post-tax take-home pay of \$120,000, mortgage payments of \$30,000, food payments of \$30,000, health care payments, tuition payments, etc. of another \$30,000 — would volunteer to pay an extra \$5,000–\$10,000 per year in order to reduce global GHG emissions. In the abstract, they will of course agree. But when push comes to shove, would they willingly step up to the plate? Or would they rather find good arguments why it should not be them but others who deserve to pay?

Consider some further thorny problems. Richer people in the West might support a benevolent world dictator presumably in order to obtain more protection for their great-grand-children through increased climate action. Yet, poorer people would presumably demand more protection for their own children *now*. Should our benevolent dictator, with enlightened and not self-interested values, focus primarily on global warming and future generations or primarily on poverty reductions in today's generation? Why should 1/4 of the world popu-



lation enjoy wealth in abundance, while 1/2 are poor, and another 1/4 live near subsistence levels? What if the dictator considered it ethical only to tax millions of Westerners more in order to reduce the poverty of billions in Sub-Saharan Africa and India? It's hard to argue against it on moral grounds. Many of the global <u>poor</u> already scoff at the hypocrisy of the rich, whether the rich live in their own or other countries. One suspects that <u>the poor</u> would consider it "the whining" of rich people (or Western intellectuals), when the latter complain about how their great-grand-children will have to deal with global warming — probably right after taking a flight for this year's summer vacation — if they (the poor people of Nigeria or India) were to double their fossil fuel use. These rich countries had built their economies by aggressively exploiting fossil fuels for centuries. The people of poor countries would look at their own standards of living, at their compatriots in poverty right now, and at the increasing immigration barriers in rich Western countries — and wonder why they should sacrifice *anything*.<sup>2</sup>

But these are arguments akin to <u>how many angels can dance on the head</u> <u>of a pin</u>. The simple fact is that there is no world government on the horizon. A global  $CO_2$  tax, argued for by climate scientists, economists, and activists, exists only in a world that does not exist.

Dreaming of a world with a global  $CO_2$  tax is like dreaming of the world of the <u>United Federation of Planets</u>. It's not our world.

#### **Big Brother Solutions**

Every country in the world has been moving rapidly towards ubiquitous surveillance of its citizens. Governments have never known so much about their people as they do today. Could some of this power be used to encourage more climate-conscious individual behavior?

We are in favor of one form of government intervention — economic incentives — but we are wary about other more intrusive forms. Climate and energy touch on every aspect of our lives. Should governments control, dictate, and punish people that don't do what should be done in the interest of combating climate change?

For better or worse, <u>Big Brother</u> surveillance may work nationally but it is a hopeless approach from a global perspective. There is no global government or treaty that could extend Big Brother from single countries to the entire world. Thus, it's not a viable plan.

<sup>&</sup>lt;sup>2</sup>In fairness, these are not easy questions. <u>William Easterly</u> has raised good questions about <u>whether international aid has actually been effective</u>. But this is a very subtle consideration that is easily lost.

### **3** Why Climate Treaties are Unrealistc

If there is no world government, let's think smaller and more realistically — not the world, but countries (and perhaps institutions). Could climate treaties among <u>sovereign</u> countries do the job?

International treaties can be classified into two categories. The first are treaties that bestow their benefits upon the signers. NATO or the European Union are such treaties. Non-signers do not get the benefits of membership. The second are treaties that bestow benefits upon signer and non-signer alike. These suffer from the public goods problem discussed in Chapter 5. It is only this second kind of treaty that we are discussing here. A  $CO_2$  treaty would be of this second kind. If the world warms less, even non-signers will benefit. (An important warning: we are on the pessimistic side here, though we like to view ourselves simply as being more realistic. We have heard many serious intellectuals express more faith in the viability of international carbon agreements than we can muster. We hope they will be right and we will be wrong. As for you, our reader, hear us out and then make up your own mind!)

#### **Theory With Heroic Assumptions**

Unlike a world government, at least countries and their governments exist. This checks the first box. Countries are real decision-makers that could, in principle, agree on a treaty with a  $CO_2$  tax. Yet to the extent that they act rationally and consistently, countries are also selfish and self-interested, just like individuals. It flies in the face of common sense to imagine that most countries would sign a treaty that left them meaningfully worse off. (Existing climate treaties have never demanded any real sacrifice.) This is not to say that you won't find instances in which countries have acted against their self-interest — just that we cannot expect painful altruism at large scale to win the day.

Allow us to offer a brief overview of the hurdles that a global climate treaty with real sacrifices would face. Let's assume that all countries are eager enough to fight climate change. There are about <u>200 countries</u> in the world today.

One of the most basic problems is coordination. Have you ever tried to negotiate with more than ten parties at the same time, with each party trying to cut a deal just a little better for itself, hoping to exhaust the patience of others? The proverbial wisdom of Solomon would not be able to cut through the morass.



So it is unanimously agreed...we will all do something about global warming as soon as somebody else does.

But let's assume that you have somehow managed to assemble all important countries in the same room and they have agreed not to play <u>the waiting</u> <u>game</u> (claiming higher-ups will have to ratify any concessions later). There is another problem now. Countries have many concerns

beyond climate-change. If country A cares more than country B about climate change, what prevents B from using its cooperation as a bargaining chip with A on something else? For example, China has already begun to demand more concessions on other issues whenever the United States has begged for more cooperation on climate change. How much should the United States be willing to give up to China (e.g., on import duties, human rights, intellectual property theft, or social-media interference) for playing ball on climate change? As we are writing this, poorer nations have just introduced their demands for \$1-3 trillion from wealthier countries in order to shift away from fossil fuels. India alone is asking for \$100 billion per year (for a total of about \\$1 trillion over a decade).

But let's assume that all 200 countries can somehow manage to coordinate and agree not to link climate-change agreements to other demands. Economics teaches that there is an intrinsic problem that applies to all treaties: The more countries sign on, the greater are the incentive for each single country *not* to sign on. (This is also why cartels and conspiracies don't work with large number of participants.)

This deviating country can pick and choose to attract the best  $CO_2$ -emitting industries in the world. These industries will employ its population and pay

its taxes.<sup>3</sup> Simply put, each country wants all other countries to sign a climate treaty and tax and reduce their global polluters, but it would not want to sign itself. It is a classic *public goods* problem, where every country wants to <u>free-ride</u> (Chapter 5).

The extreme version of this argument may be taking economists' rationality a little too far from the perspective of the voting public.

First, if countries are all suffering about equal harm and would gain about equal benefit from a climate treaty, they may be more inclined to



compromise. Pain and gain can be more easily shared equally. Unfortunately, China and the United States, the two biggest emitters, are among the nations that will suffer the least consequences from climate change. Thus, why should they agree?

Second, countries are somewhat more inclined to take responsibility for emissions that can be labeled and tagged as "domestic." They may remove  $CO_2$  at their smokestacks, but not out of the air a mile away or 1,000 miles away. Yet, logically, from the perspective of global greenhouse gases, location should make no difference.  $CO_2$  at the top of the smokestack in Indiana is just like  $CO_2$  in India. An extreme version of this argument is to ask who in the United States would vote to pay if there was a new technology that could remove emissions even at the extremely low price of  $1/tCO_2$  while China is still pumping more  $CO_2$  into the air every year.

<sup>&</sup>lt;sup>3</sup>Morals have rarely come first, but it can always comfort itself. Why should it care that its global CO<sub>2</sub> pollution will affect the other "<u>patsies</u>"? They decided their own fates, and you decided your own.

But let's assume that a miracle has made every country sign onto a climate treaty. And most did sign onto the 2015 Paris Agreement. (Fewer signed the 2021 Glasgow agreement.) Under the Paris treaty, countries were required to submit details of their plans to cut greenhouse emissions, called "Nationally Determined Contributions," or NDCs. According to the <u>United Nations 2021</u> report, the NDCs submitted by countries are explicitly allowing global emissions to keep rising, increasing by 16 percent by 2030, compared to 2010 levels. This is not enough to do better than about IPCC RCP 4.



It's a great treaty, but do we trust us?

How could signing countries make sure that other signing countries are not lax on enforcement? Who is the police? In the end, what determines countries' decisions of whether to emit or not will be the actual penalty for non-compliance. You may or may not be surprised by this, but no international climate accord to date has dared to impose penal-

ties. "Fortunately," the two most recent important international climate treaties, <u>Kyoto 1997</u> and <u>Paris 2015</u>, did not need <u>penalties</u>. The reason? Even the targets were not mandatory! The result? Almost all countries are behind even their modest voluntary <u>targets</u>. Even Europe — a beacon in the global effort to fight global warming — is already about <u>21 years</u> behind in reaching its own declared goals.

Are we too harsh on climate treaties? After all, Kyoto, Paris, Glasgow, etc. were not treaties. They were simply <u>Conferences of the Parties</u>. Maybe we have just not observed a climate treaty yet...

But let's assume not only that a few brave politicians in *some* countries have signed onto a binding treaty, but also that brave politicians in *most* countries have signed on. And now assume that this treaty forces true domestic sacrifices (say, about one month's rent).

How would it likely play out? Will most of these brave politicians survive the next election cycle? Maybe in some countries, but in most? Will the next generation of politicians care more about domestic public opinion related to their handling of current problems (perhaps even climate-related) or about international promises and opinions that won't make any notable difference for 50 years? Even the dumbest opposition politicians will realize that they can promise the electorate to stop abiding and use the one month's rent differently. (If need be, they can point to a few other countries to blame as examples of cheats, whether true or not).

Ultimately, most or all <u>politics is domestic</u>. Democratically elected leaders who have agreed to sign and enforce such a treaty would be less likely to win the next election against skillful populist debaters. It wouldn't be much better in less democratic countries, either. Do you *really* think that China, India, or countries in Sub-Saharan Africa are ready to sacrifice their economic development for a global climate benefit (that will materialize only 30–50 years down the line) if it involves sacrificing their own economic interests now?

But let's assume the signing politicians have survived their next elections. How many countries will be able to sustain such climate-determined voting majorities over future decades — especially during the next recession, when many voters will lose their jobs?

But let's assume that voters are so genuinely determined to fight global climate change that they will not give in to the temptation to elect opposition politicians who promise them less sacrifice — and indeed ignore all other issues on election platforms so that any anti-environmentalist opposition party will never come to power.

How many of these determined voters would also be in favor of allowing foreign countries to inspect and enforce their country's global CO<sub>2</sub> tax compliance? How would U.S. voters feel about being subject to a worldwidemandated tax, perhaps enforced by the United Nations or an international climate panel?

We believe it is more likely that the United States would leave the United Nations before it agreed to be disciplined by it. The United States is not unusual in this respect. The majority of voters in most countries remain fiercely nationalistic.<sup>4</sup> They already have instinctive aversions to globalization. They tend to favor politicians who promise independence from global pressures.

<sup>&</sup>lt;sup>4</sup>Most Europeans are in favor of paying money to Brussels to maintain the European Union, but this works because it makes almost all countries individually and immediately

#### sidenote

<u>Bill Nordhaus, the Nobel-prize winning economist</u> who pioneered the integrated assessment models of Chapter 6, is more hopeful about the idea of global cooperation. He suggests that blocks of countries could force other countries to sign on by imposing extra tariffs on non-signers. He calls this a *climate compact*. But there is no precedent for climate compacts, and we suspect that it would be difficult to set up and sustain one over long periods of time. Sustaining an embargo on global renegades like Iran and North Korea is difficult enough. Sustaining an effective tariff on China, India, and Russia — whose collaboration in addressing the security crises of the day is important — seems doomed from the start. Perhaps the only piece of advice we could offer the designers of such compacts is that any such policy must be formulaic and mechanical, difficult to tinker with, immediate, and difficult to circumvent. We hope a workable climate compact could be established, but we are not optimistic enough to count on it.

#### **Evidence and Practice**

Some optimists may consider our arguments to be merely theoretical ivorytower objections. Should the world place more faith in negotiated arrangements? Take a hard look. How have decades of UN climate conferences changed the world?

#### Montreal Protocol on Ozone?

If you disagree with us, then please tell us: what global environmental treaty that required large national sacrifices has ever worked? Can you please give us just one example?

You may now be tempted to retort that you have one: the <u>Vienna/Montreal</u> <u>1987 treaty</u> banned <u>CFC chemicals</u> depleting the <u>ozone layer</u>. It was the most successful international climate treaty *ever* — if only because it actually worked! This in itself should be considered a minor miracle—until you look at the cost-benefit estimates. Table 1 shows that even going it alone, the United States would have been better off—and not just by a little. Getting other countries to join in was only frosting on the cake.

Montreal worked because it required no sacrifice, the net benefits of the treaty were even larger, and rich countries underwrote some of the costs of the

better off. One could argue that the richest member countries of the European Union have become somewhat less nationalistic. The rise of populist right-wing leaders in poorer member countries suggests that this sentiment is not universal.

Table 1.	In-Time	Estimates	of Cost	s and	Benefits	of Montre	al Protocol
	(in billio	ons)					

		Benefit	Costs
US only (-2165)	unilateral	\$1,373	\$21
	multilateral	\$3,575	\$21
World (–2060)		€ 2,220	€ 200

**Source:** <u>Barrett (2007)</u>, Table 3.2, p79. Original US estimates are from the <u>US EPA (1988)</u>. (They are the present value of reduced deaths at \$3 million/life, which is why they reach \$1.4 trillion.) Original world estimates are from <u>Velders et al (2000)</u>.

poor countries.<sup>5</sup> It is the opposite for Kyoto and subsequent climate-change conferences. They would require notable reductions in living standards.

We know of no example of a successful environmental treaty that required meaningfully large national sacrifices where parties not signing would have reaped all the benefits of the treaty without bearing the cost.

#### Empty Promises

Countries have been making pledges to cut GHG emissions for decades, but on further investigation most of these appear to be primarily public relation exercises. Many are cloaked in complex and relative terms that allow countries to increase emissions. Here are a few examples. If the subject were not so serious, they would make for great chuckles in a comedy club.

China is the world's biggest emitter. It <u>claims</u> it will cut the <u>CO<sub>2</sub> intensity</u> of its GDP by 65% by 2030, compared to 2005 levels. What it does not say is that economies automatically tend to become more energy-efficient as they grow. Of course, CO<sub>2</sub> intensity is not CO<sub>2</sub> emissions. China's targets allow it to emit more over the next few decades than it does today.

The United States EPA proudly <u>declared</u> in 2017 that America was the world leader in emissions reduction. Yes, this is true, but this was also not

<sup>&</sup>lt;sup>5</sup>Cass Sunstein's analysis in <u>Of Montreal and Kyoto: A Tale of Two Protocols</u> (Harvard Law Review) lays out more reasons why CO<sub>2</sub> agreements are failing where Montreal succeeded. Sunstein argues that a contributor to failure is that the two worst emitters of CO<sub>2</sub>, China and the USA, are <u>not the countries</u> that will suffer most of the damage from climate change.

difficult to achieve. The back story is that the United States was among the least energy-efficient countries in the world, so this reduction was easy and in its own economic interest.

The <u>European Union</u> has pledged a target of lowering emissions by 55% by 2030 compared to America's 52% cut. However, the EU's goal is calculated using 1990 as the base year, whereas America uses 2005. The kicker is that EU emissions had already fallen between 1990 and 2005, so it could do less than America.

<u>Pakistan</u> has pledged a cut of 20% by 2030. These cuts are compared with a pathway where it would take no climate action. That, of course, depends on what is meant by "business as usual." In this case, Pakistan means that emissions can triple this decade.

Brazil has pledged a reduction of 43% below base year 2005 levels by 2030. But the *The Economist* reports that <u>tweaks to its accounting</u> caused its emissions booked for 2005 to increase by one-third, from 2.1 GtCO<sub>2</sub> tonnes of CO<sub>2</sub>e to 2.8 GtCO<sub>2</sub>. As a result, Brazil can now emit one-third more in 2030, too. But let's not be too harsh on Brazil. Even if Brazil's emissions rise in line with its pledge, the 2030 carbon footprint of the average American will still be twice that of the average Brazilian.

As of August 2021, half of the <u>world's 20 biggest polluters, accounting for</u> <u>four-fifths of global emissions</u>, are emerging countries. The emerging countries have now pledged climate targets (good), but these targets explicitly provide for their emissions to grow over the next decade (bad).

It is easy to criticize politicians for gaming voluntary agreements with green lip service and public relations. But think about it. Politicians are elected when they can ride public sentiment. While the lights are working, politicians can garner votes with green promises. But make no mistake — if the reliability or provision were ever to fall short, or the cost became serious, public sentiment would shift. Do not expect politicians to follow through with any pledges they or their predecessors have made when the going gets tough. It's easy to "talk the talk." It's difficult to "walk the walk." In late 2021 and early 2022, the price of oil and gas doubled. Surprisingly, even politicians in progressive countries and states (like Scandinavia and California) began to promise subsidies. The jump in gas prices threatened their political support.

#### ► Actions

Occasionally, we see climate activists attribute successes to treaties, such as the fact that three-quarters of all planned coal plants were <u>scrapped</u> after the Paris accord. This is like the rooster taking credit for making the sun rise. Most of these coal plants are no longer being built because they have become economically uncompetitive, not because of Paris.

Unfortunately, this may change again. In September 2021, European prices for gas and electricity rose <u>dramatically</u> and supplies for the winter were brought into question just as wind and solar output dipped. This produced a sharp backlash. <u>The energy crisis buffeting the continent</u> placed Boris Johnson and other European leaders in the difficult position of decrying fossil fuels while urgently prioritizing affordable access to them. Even climate-conscious Scandinavians demanded government energy subsidies.

In China, Vice Premier <u>Han Zheng</u> told state-owned energy companies to get hold of supplies at all costs. <u>Government officials</u> stated they were concerned that the squeeze in energy markets, surging prices, and the resurgence of coal would cast a long shadow over the 2021 climate negotiations.

After China was promising emission stabilization in 2020 (leading to a proportional reduction in fossil fuel use) — though always scheduled for as late as 2060 and thus always iffy — China has now largely reversed course. Together with Russia, China has been disengaging from climate negotiations starting with the <u>Glasgow COP in 2021</u>. Reuters is reporting that <u>China</u> has announced plans to build 43 new coal-fired power plants and 18 new coal-fired steel blast furnaces. Apparently, China has decided that the benefits in terms of economic development, energy security, jobs in the coal industry, and enhanced international competitiveness outweigh the benefits of reducing GHG emissions. For perspective, remember not only that China uses less energy per capita than the West, but also that China has one of <u>the lowest electricity prices in the world</u> for its industries. These low prices are part of the reasons why so many industries operate there, why demand for more power is so high, and why per-capita emissions are already higher than those in the West.

Nevertheless, one can see a ray of light in the Paris agreement: it set at least some world targets. But the fact is that the world has simply <u>ignored them</u>. The targets required annual reductions. Instead, fossil fuel consumption has

marched on as before. Thus, the gap between targeted and actual emissions has been increasing every year.

#### **Our Assessment**

We end this section with a mixed assessment. As for us, we have little trust that countries — especially but not only developing poorer countries — will sacrifice their self-interest on behalf of a greater global good that will take decades to show results. We would love to be proven wrong in our skepticism. But there is room for disagreement here. Other experts remain more optimistic.

It is another valid question whether multilateral climate mitigation efforts are worth the time spent on them. On the one hand, negotiations can draw attention to the problem of global warming. They might increase domestic pressures on politicians to do *something*. On the other hand, negotiations pay for a lot of diplomats and consultants and make it appear as if the world is already doing something useful and that change is happening. By distracting everyone, have they prevented more useful steps? It's hard to say. Our view is that it is okay to rearrange the deck chairs on the Titanic, as long as it does not detract from the real rescue operations.

Dreaming of a world in which countries sign onto and enforce a global  $CO_2$  tax is like dreaming of a world without military expenditures. It's not our world.

### **4** Why Corporate Solutions are Unrealistic



Meet Jason and Pam...they're currently in charge of our climate change research.

self-interest is not realistic.

If country treaties don't seem to provide a path we can trust, what about corporate initiatives?

Trust here seems similarly misplaced. Corporations are designed to make money. They are not designed to set policies to combat climate change. It is the government's responsibility to do so. The task of dealing with climate change is a public interest issue, the kind for which governments have been created in the first place. It is the government that has to set the rules that make companies act in a socially responsible way. Abrogating its responsibility and hoping that companies will act against their

#### Associations

There appear to be some positive developments with industry groups. Many have jumped on the climate bandwagon with seeming gusto.

For example, the <u>Global Financial Markets Association report</u> created by the Boston Consulting Group (BCG) calls for a "globally consistent approach to sustainability reporting" and the "mandatory disclosure" of climate risks and opportunities by financial entities that would be in line with global standards set forth by the <u>Financial Stability Board's Task Force on Climate-related Financial Disclosures</u>. Even as finance and economics professors, we find it difficult to parse much meaning into such a vague and general mission statement.

Perhaps more consequential is that equity giant Morgan Stanley Capital International (MSCI) is about to create <u>global warming ratings</u> for 10,000 firms. Beyond the obvious — some industries have higher emissions than others — <u>corporate emissions</u> seem <u>nearly unmeasurable</u>. (What do you think your own warming contribution is?)

Yet there is worse. To our own surprise, these ratings do not mean what we thought they meant. <u>Businessweek</u> explains "there's virtually no connection between MSCI's 'better world' marketing and its methodology. That's because the ratings don't measure a company's impact on the Earth and society. In fact, they gauge the opposite: the potential impact of the world on the company and its shareholders. MSCI doesn't dispute this characterization. It defends its methodology as the most financially relevant for the companies it rates."

Most environmentalists (and many investors) probably will probably not understand this. Did you know what it means to buy a "green mutual fund" based on MSCI rankings? We finance professors did not.

Corporate association green goals will pay for a lot of accounting and consulting firm reports and ratings. They will create a cottage industry for high-priced consultants. And they will also make for great corporate public relations. However, they will not make much of a difference in the global concentration of  $CO_2$  in the atmosphere.



#### 5. WHY DIVESTMENT MAKES NO SENSE

#### **Individual Companies**

There are too many examples of corporate advertising campaigns about green commitment that seem disingenuous. Forgive us for not calling out any particular company — there are just too many, and singling out one seems unfair.

Some advocates of corporate responsibility have argued that companies are turning green because doing so will increase corporate value. If they are correct, activism is unnecessary (though it can't harm and may help remind and nudge executives in a greener direction). Why would companies not go green by themselves then? And if they are so socially-minded, why did they contribute to the climate problem in the first place?

Dreaming of a world where industry organizations and companies can tackle climate change is like dreaming of a world in which the grinning cat has not eaten the mouse. It's not our world.

### 5 Why Divestment Makes No Sense

Many activists, especially university faculty and students, are now advocating for divesting stocks from fossil-fuel companies. However, we are less opposed to these efforts as we are genuinely puzzled about them.

Is divestment intended to speed up the transition from fossil fuels to cleaner technology? In that case, wouldn't it be more useful for universities to invest resources into what they are best at — research and development into relevant clean energy?



OK — we've overturned the power structure of our country — what now?

Is divestment intended to get fossil fuel companies to invest more in green technologies? In that case, wouldn't it make more sense to retain the stock and pressure fossil-fuel management at the annual shareholder meetings into change (as has recently happened)?

Is divestment intended to lower the share prices of fossil-fuel companies? In that case, it <u>won't work</u>. Stock markets are so competitive that even a collective simultaneous divestment by all universities together would probably have a value impact of no more than that of a typical day's price change. Any individual university is even less important. And fossil fuel companies also no longer need to raise significant funds in the public market — they can finance their explorations from their revenues.



Have you offset your guilt?

If this does not puzzle you, how about the following? There are many providers for ESG ratings of companies — but they do not overlap much.<sup>6</sup> Ratings of "goodness" of corporations are more like ratings of best places to retire (that do not overlap greatly from magazine to magazine) than ratings of how good universities are (that do overlap greatly). This is perhaps not surprising. We cannot think of a way to objective measure ESG quality. Tell us — are pharmaceutical chemical manufacturers good or bad? Is Tesla a green company in China or a brown runs

because the cars are charged from a coal fired electric grid? And these are the less controversial environmental judgments — now think about more controversial social causes, which are often highly politicized, too.

Again, we are simply puzzled by divestment campaigns. They could not possibly cause a meaningful change in the  $CO_2$  concentration in the atmosphere. Divestment seems like the purest form of climate wellness — a moral stand delivering a warm glow and designed to make the activists feel better rather than an attempt to contribute, however small, to help reduce

<sup>&</sup>lt;sup>6</sup>As of 2023, the SEC is still considering a rule to force public US companies to disclose standardized GHG emissions.

global warming? If we are wrong, please someone explain to us: how could it possibly work?<sup>7</sup>

An alternative activist goal would be to focus not on divesting but on investing. For example, universities could invest more in clean-energy research, either via venture capitalist funds or their own engineering departments. They could also fund clean-energy projects explicitly at lower required hurdle rates, e.g., in sub-Saharan Africa. Promising cheaper financing to solar installers in Africa could induce larger companies to explore the viability of such businesses. However, we know of no coordinated efforts in this direction.

Dreaming of a world where divestment can tackle climate change is like hoping to change the U.S. government system by casting one invalid ballot.

### 6 Why Individual Solutions Are Doomed

Climate change is a really, really, really big and really, really, really slow problem. This is why it is so difficult for most people — and this includes researchers — to wrap their heads around it. We need to try to unwrap it. The key points are

- 1. Your footprint (or lack of it) does practically nothing to change world emissions. Changing your own carbon footprint is no more effective than prayer.
- 2. Your footprint does not influence enough others, either. Thus, even the indirect second effect of changes in your behavior do not matter.
- 3. The billions of people that would have to abide by them will not abide by them. (We wish they would, but they won't!)

Carbon footprint solutions are personal wellness, not Earth solutions. For Earth solutions, there are better ways to deploy environmentalist enthusiasm.

<sup>&</sup>lt;sup>7</sup>Our view is what philosophers would call <u>non-deontological</u>. Kant and others were more conferenced with deontological ethics, a framework within which actions are judged to be morally right or wrong, regardless of whether their consequences are productive or not. <u>Ayako</u> <u>Yasudo</u> has argued that ESG investing is deontological (but useless), while impact investing is non-deontological (but useful).

#### **Carbon Footprints**

Small-scale solutions are wonderful *if* they can and will be widely scaled. When you replace one incandescent light bulb with an LED bulb, it is meaningless. But because replacements are in the self-interest of billions of people and LED use is spreading, the effective scale of the LED transition is not the same as the individual scale. Relighting the world produces meaningful change.

In contrast, most carbon footprint writings are best viewed as the <u>wellness</u> version of fighting climate change: They may make their readers feel better, but they have no real effect on climate change.



Two flights, a train, a truck ride, and we camp generating zero carbon footprints!

Even the New York Times is unimportant. When it publishes an article on <u>How to reduce your</u> <u>carbon footprint</u> for its mostly affluent liberal audience, it is meaningless. Even if this article succeeds in getting a few *tens of thousand* more New Yorkers start bicycling to work *forever* — which we doubt — it will make no meaningful difference to the world's global climate problem.

And what about *your* influence? How could *your* decision to bicycle

have any influence in inducing billions of humans to bicycle instead of driving? If it can't, it will not make a difference.

It isn't just the New York Times that promotes climate wellness. There have been many bestsellers that have held forth about how to reduce one's carbon footprint. They sell many copies to the faithful. Their advice is rarely followed even by their readers (although we would love to see this happen). These books would be amusing distractions if only the issues were not so serious, if only the beliefs were not so widely held, and if only the diversions would not delay what really needs to be done.

With all the bestsellers, talk shows, and news features devoted to climate change, why haven't most people on the planet voluntarily changed their behavior? Do you believe that they will be convinced to do so by the next few bestsellers? Do you believe that people (not only in the Western world but beyond) just don't realize how they could reduce their personal carbon footprints or how much they could help the environment?

If this were so, would it be a contribution to print or post 8 billion copies of the next big "personal-carbon footprint" advice book and hand them out freely to people all over the world? We suspect not. In fact, we suspect that it would cost more carbon emissions than it would save.

We think the problem is not ignorance. Most people already know how to change their ways for the global better. They just don't want to change. Economics suggests that not enough people will change long-term behavior if they don't find it in their self-interest. Ergo it is a fallacy to think that voluntary sacrifice could transform the world. (This also implies that they won't go green as long as dirty energy remains a lot cheaper than clean energy.)

Don't shoot the messenger. It's not our fault. We wish it were not so. In Laurence Fishburne's words in <u>The Matrix</u>, all we are offering is the <u>red pill</u> — the unpleasant truth, nothing more.

anecdote

If it solved global warming, would you give up the TV remote and go back to carting your fat ass over to the television set every time you wanted to change the channel? If that was the case in America, I think Americans would watch one channel forever. — Bill Maher, Comedian. (We disagree. We think the world would warm up twice as fast.)

#### ► A List from 2008 by David MacKay

The first question one needs to ask when considering any kinds of solutions is why they have not worked in the past. What has changed that may make them work in the future? This question is easy to answer for clean technology, for example: a number of technological breakthroughs have been and are continuing to reduce their cost. It is easy to answer for local fossil-fuel curtailment in India and China: the public is demanding cleaner local air and willing to pay the requisite cost for government mandates.

It is not easy to answer for voluntary altruistic behavior. Not much has changed with respect to appealing to more climate conscience (again, especially in non-OECD countries.) Even where voters might support forced mandates, they are unwilling to comply voluntarily without mandates. In his classic book <u>Sustainable Energy Without the Hot Air</u> published more than a decade ago, David MacKay recommended that individuals adopt the following good practices:

- Put on a woolly sweater in winter and turn down your thermostat (to 15°C or 17°C, say). Put individual thermostats on all radiators. Make sure the heating's off when no one's at home. Do the same at work.
- Read all your meters (gas, electricity, water) every week, and identify easy changes to reduce consumption (e.g., switching things off). Compare competitively with a friend. Read the meters at your place of work, too, thereby creating a perpetual live-energy audit.
- Stop flying. (It is superb irony though ultimately irrelevant when environmentalists take even a single airplane flight. Flying is *by far* the best way to quickly and dramatically increase one's carbon footprint.)
- Drive less, drive more slowly, drive more gently, carpool, use an electric car, join a car club, cycle, walk, use trains and buses.
- Keep using old gadgets (e.g., cell phones); don't replace them early.
- Change lights to fluorescent or LED.
- Don't buy clutter. Avoid packaging.
- Eat vegetarian six days out of seven.

None of these recommendations should come as a surprise. They are about as widely known as "eat less sugar and exercise more — it's good for you." They are like New Year's Resolutions or diet plans. Even if we could get every human to read MacKay's advice and pledge to follow it, when the excitement and commitment fades, the old behavior will return. Evanescence won't work for climate change. The necessary behavioral modifications must last multiple lifetimes, because even future generations will have to adopt them; and they must occur not just in the West — whose total carbon footprint is now smaller than China's — but all over the world.

Reading through the list today, the only one that has had widespread and lasting impact is switching lights — and it is not due to environmental aspirations. In the last ten years, technological improvements and mass production have made LEDs both cheaper and better than old incandescent lights. The latter have become obsolete. Of the entire list, only the one due to technological change has worked. Even the modest "sweater" recommendation has largely been a no-go. Comfort and self-interest come first for the world population at large.

#### Setting an Example

What about setting an example? There are a few select individuals who are so prominent that their actions may influence those of many others. If you are the Pope, the Archbishop of Canterbury, or the Orthodox Ecumenical Patriarch, your <u>appeal</u> may matter — though not in China and India, where their influence would be most needed now.

We can't think of many other individuals with much potential influence. Cristiano Ronaldo has <u>300 million followers on Instagram</u>. If he put all his effort into it, how many fans could he convince to stop flying or driving? Can you think of other prominent personalities who could sway more than a few hundred-thousand people to change their lives permanently? Even if you can, a few hundred thousand people is only 0.001% of the world population — a drop on a hot stone. You still would need to convince the other 99.999%.

If you are like the rest of us, you are not that important. Frankly, the world does not care what your thermometer reads or whether you eat vegetarian or not or even whether you take another flight or not.

Of course, none of MacKay's recommendations are bad — most of them are outright healthy for you, too, and we can only encourage you to follow them. (And please exercise more, while you are at it.) Just don't think that your actions and examples (and those of your friends) will make a meaningful difference to reducing the  $CO_2$  concentration in the planet's air. The statement "if everyone did it" is another logical fallacy. If everyone does it, it will not be because of you. They will do whatever they do, regardless of you.

What about carbon-shaming others? Fat chance. Social pressure can work in small groups. It does not work for the world. Even if you are the world's greatest carbon-shamer and you can convince everyone you will ever meet and your shaming is so contagious that it also changes everyone that your shamed will ever meet, *it does not matter*. The atmosphere does not care what you eat, where you fly, or what you drive. It only cares about what a billion people eat, fly, and drive.



#### sidenote

Carbon-shaming is even more ridiculously unrealistic as a strategy for getting countries to cooperate on global treaties. Do you really think that any Indian prime minister will throttle the development of India because (s)he is being called out for emitting too much  $CO_2$  that harms the rest of the world?

Prominent activists sometimes have to set examples for the sake of public relations. This can help defend their credibility against accusations of hypocrisy. But make no mistake — these are not actions that reduce global warming.

Greta Thunberg is the climate activist with the loudest megaphone in the world. In 2019, she crossed the Atlantic on a <u>sailboat</u> rather than an airplane. How can this choice induce millions to reduce their  $CO_2$  footprints? How many gigatonnes of  $CO_2$  will her trip ultimately reduce, directly or indirectly? A for intent. F for effectiveness.

Bill Gates buys "carbon" offsets for his private jet trips. Why are these purchases even linked to his trips? If it is globally worthwhile to remediate  $CO_2$  in this way, he should be purchasing more credits. If it is not, he should be investing the money into something else that is more efficient — like his <u>Breakthrough Energy Fund</u>.

We need to reiterate what we stated at the outset of this chapter. We are condemning neither activism nor activists. We admire their intent. They are providing a positive externalities to others. They help keep politicians focused on the subject and nudge consumers and companies towards cleaner choices. It is just that we do not trust this sort of activism to make a big enough difference, especially among the 6+ billion people not living in OECD countries.

### **Local Coordinated Action**

In terms of size, localities sit in between countries and individuals. Our own locality is Los Angeles in the state of California. Can local coordinated action reduce global carbon emissions?

Although it is true that changing the entire locality is much more effective than changing yourself, it is still ineffective on a global scale. (Combining it with "if everyone followed our example" does not work for the reasons already explained above.) Put differently, it is true that it is more effective to get everyone in a county of 100,000 to reduce 1% of their emissions than for your household to reduce 100% of its emissions. However, even 100,000 people are a drop in the bucket when it comes to atmospheric greenhouse gases and global warming.

We have a specific example from our own backyard that would merely be amusing if it were not so expensive. The <u>University of California</u> (UC) is a large institution, home to over 300,000 students, staff, and faculty. It is now engaged in a large-scale and expensive <u>electrification effort</u> with the declared goal of fighting global climate change. If this goal is the guideline for decision-making, then it is also a waste of UC resources.<sup>8</sup>

In fact, even if not just the University of California, but all of California spent its next few decades wringing sacrifices from its 40 million inhabitants on behalf of global climate change, it would barely be noticed on the global emissions spreadsheet. (California is responsible for about 1% of global emissions.) Worse, outward migration makes it impossible for a single U.S. state to succeed. Many of California's well-meant policies may already beginning to turn counterproductive in that they may be driving some industries to Texas

<sup>&</sup>lt;sup>8</sup>Careful: our description of calling it waste applies only to the *extra* cost of early electrification over the alternative, not to the *total* cost of electrification.

and abroad, where they will emit more and possibly invent less. Elon Musk, the most important individual climate changer of our time, has tweeted that he is joining the trek. He is moving to Texas.

Don't be deceived. We have already mentioned that even if the United States and Europe were to reduce fossil-fuel consumption to zero, the world would still be emitting about 30 GtCO<sub>2</sub> per year (instead of about 40 GtCO<sub>2</sub>). The world's problem is now no longer primarily about 1,000 million people who live in the most developed countries, but about the 7,000 million other people. To make a difference, an effective world solution has to be in the self-interest of most of the world's population — or at least not dramatically contrary to their self-interest.

Of course, it would be different if the University of California's electrification were a pilot effort with the effect of speeding up all of California's efforts, which in turn would speed up the United States' efforts, which in turn would speed up the world's. However, this seems implausible in this context of switching its vehicle fleet to electricity. If and when larger domains (like the United States) decide to electrify, it will almost surely not be because UC did it first or made it easier to follow.

The true irony is that the University of California is almost uniquely positioned to make a climate-change impact. It is among the world's premier research and teaching institutions. It could help the world a lot more by investing its limited resources not into its own electrification infrastructure, but into clean-energy research and development, which could then be made available worldwide. This actually could make it cheaper for everyone to use clean energy. What a waste of energy!

Even the Tottenham Hotspur soccer team is now <u>getting into the game</u>. This surely counts for a goal.

joke

### 7 Is Climate Change About Something Else?

Climate change often gets tied to other issues, such as social justice and inequality. We are not rendering any opinion on the specific causes, but we want you to be aware that advocating for bundles risks derailing all its ingredients with the broader public. It also makes spending decisions more inefficient. Change on any one issue is difficult enough. Changing everything at the same time may be impossible.

#### **Assigning Blame**

Perhaps you are still grappling with the question of who is to blame for the current problematic state of the world. There is plenty of blame to go around. It is easy to point the finger. Was the fault the accelerating industrial emissions of rich countries? Or was the fault the accelerating population growth in poor countries? (The answer is probably both.)

THINK HE'S SAVIER UPOUR ACT...

We already mentioned that half of the world's 20 largest emit-

I think he's saying we should clean up our act...

ters of GHGs (which account for four-fifths of the global total) are now emerging countries. If they will find it in their interests to further grow their fossil fuel consumption, it will effectively spell the end of the global effort to curb human GHG emissions.

Do rich countries "owe" reparations<sup>9</sup> to poor countries? We are not moral authorities, so we won't take a stance. (Personally, we may agree.)

Yet we fear that even the discussion of climate reparations is counterproductive. It would mobilize a big segment of the population of rich countries to end their involvement in cross-country efforts to curb climate change. Few voters anywhere, involved in their own personal day-to-day struggles, will

<sup>&</sup>lt;sup>9</sup>The only countries that we know to have *ever* voluntarily paid significant sums in reparations for past misdeeds are Germany and Benin. We must commend them for their moral stances. If you know of other countries, please let us know.

ever vote to pay more because of their parents' past contributions in having driven  $CO_2$  levels up to 410 ppm — be it through past population growth or past industrialization.<sup>10</sup>



Who is more to blame is ultimately an irrelevant question. All that truly matters is that the planet now has a  $CO_2$ level of 410 ppm, rising at a rate of about 2.5 ppm per year.

Consequently, there is only one real question that matters and it is the pragmatic one: What

Okay! Your turn to take on the baton of climate change! pragmatic one: What can and should be done about moving the needle now, within the limitations imposed by our political, technological, and economic realities?

### **Worthy Causes**

#### ► Inequality

Public concern for inequality is also becoming more important. Moreover, the IPCC has shifted its focus away from an exclusively physical analysis to social analysis. New <u>shared socioeconomic pathways</u> (SCPs) have even made global inequality a part of their forecasts. As economists, we know of a lot of good research that has *causally* linked more economic growth to more emissions as a first-order effect (as in the RCPs), but we know of none that have done so for inequality. Inequality is not a principal cause of global warming, although it does affect the distribution of economic harm. To be clear, we think it is plausible that inequality could play a role in increasing emissions — it's just that we don't see the kind of strong empirical evidence that would induce us to adopt the hypothesis.

Wealth redistribution is an important question beyond climate change. Allow us an economic digression. Inequality is philosophically subtle. Assume

<sup>&</sup>lt;sup>10</sup>There is another problem. The poor people in rich countries are poorer than the rich people in poor countries. It is unlikely that the former would want to pay for the latter.

that there was just one government and the rich couldn't simply move away, so it is possible to tax them.

If it is difficult to raise the poor to reduce inequality, is it enough to diminish the rich? Is this in itself a worthy goal? Opinions thereon diverge and emotions (like fairness, despair, envy, or tribal belonging) often come into play.

Then there is the question of efficiency vs. redistribution. How much wealth should government be willing to transfer from the rich to the poor? What if it costs \$2 in rich wealth to give \$1 to the poor? \$10? \$100? Or the opposite, \$0.50?

The United Nations General Assembly can be described as a large echo chamber, where like-minded parties can find comfort in expressing their misgivings peacefully though largely ineffectively. Thus, it matters little that the <u>United Nation emis-</u> sions gap report of 2020 states that rich people must cut their emissions by 97%.

It is true that the average household in the United States emits more than



three times the amount of  $CO_2$  that the average household in the rest of the world emits. It is also true that most poor people in rich countries emit less than rich people in poor countries. And it is true that bringing Western and Chinese populations back down to Sub-Saharan living standards would help reduce emissions (though not cure the global  $CO_2$  problem by a long shot).

However, if the goal is to be effective and bring both the richer and more emission-intensive countries on board, then the goal must *not* be to have everyone live in equal-sized huts. The goal should instead be to reduce future emissions in the most effective way possible — ideally by taxing larger houses that use more cement and more heating/cooling.

#### Gender, Color, and Demographics

Similarly, gender issues have become more prominent on climate panels. Gender is of first-order importance in one climate-change-related aspect. Reproductive rights and gender equality in third-world countries help slow population growth and emissions. Yet this is controversial and more so in traditional societies. Many <u>religions</u> remain opposed to birth control.

However, some among the <u>United Nations climate change body</u> are now trying to go further and reframe climate change into unequal-harm terms, presumably with the intent of redistribution of resources towards groups it considers more deserving. But harm from climate change is not primarily a male vs. female issue. It's more an issue of poor vs. rich.

Meanwhile, the IPCC vice-chair Ko Barrett has laid out the <u>new gender</u> <u>policy and implementation plan</u>, which demands equal respect. Of course, there is nothing wrong (and everything right) about treating all genders with equal respect, but gender equality on panels is not a principal problem of climate change. A statement is fine. A principal focus is a distraction.

Journalists also often misrepresent statistics in order to deliver stark headlines and polarizing content. For example, they sometimes tout that more people of color (or increasibly more people of color) will be harmed by climate change. This is true, but there are more people of color in the world (and they are poorer on average). Poorer children may also be harmed more, but this may simply reflect that rich countries have low birthrates.

Harm is primarily a consequence of how hot countries are to begin with, how exposed they are to rising oceans, and how wealthy people are (allowing them to escape harm). Harm is *not* a direct consequence of skin color, gender, age — or discrimination for that matter. There can be secondary effects and correlations, but they are typically of much lower importance and do not make for good headlines. Where discrimination prevails, it is probably not accomplished through the changing of the climate.

#### ► All The Other Ills Of The World

The distracted focus of the ineffective United Nations often leads to more cynicism. Reuters reports that the United Nations now faces a shortfall of <u>\$100 trillion</u> fighting poverty, inequality, injustice and climate change — more than world GDP. It is difficult to take the United Nations <u>seriously</u> when it comes to realistic approaches to addressing *any* problem.

But such mixing of activist causes is not limited to the United Nations. It occurs in the United States, too. Democratic lawmakers have suggested that climate change be fought as follows:

Supporters of the reimagined [Climate] corps said they intend to ensure diversity among workers and managers, as well as a \$15 per hour wage and health care benefits. They envision climate corps workers installing solar panels, weatherizing buildings and providing water and other supplies during heat waves and storms.

...[L]egislation introduced ... would require that at least half the members of a climate corps come from "under-resourced communities of need." In addition, at least half the investment would support projects in underserved communities, with at least 10 percent spent in Native American lands.

- <u>New York Times, 9/9/2021</u>: A climate corps to build irrigation ditches?

In Chapter 5, we mentioned that economists are less in disagreement with other scientists about existing social ills than they are skeptical that a realworld government can and will solve them. Who in government exactly will decide which communities are most underserved and what tradeoffs between effective climate change reduction and poverty reduction are appropriate?

Fortunately, there are still a few climate-positive changes on which both U.S. parties can agree. The shining beacon here is the <u>Replant Act of 2021</u> to plant a billion new trees. When James Hansen first testified about climate change, it was a solidly <u>bipartisan</u> issue. Sadly, most of it no longer is. How can this be reversed when foreign trolls fan the partisan fires on the Internet?

### 8 Plato's Original Sin

We have not even mentioned the most basic problem yet, which we are going to call Plato's original sin. See, Plato envisioned a society in which benevolent philosophers would rule over the public. Many intellectuals see social ills and clamor for government interventions — as if the government was in effect such a benevolent and potent agent.

Unfortunately, real-world government interventions have more often failed than not. The idealists ignore two important human realities. First, even philosophers are never unconflicted. They act in their self-interest. Benevolent dictators are few and far in between. <u>Power tends to corrupt and absolute</u> <u>power tends corrupts absolutely</u>. Second, even the best governments are rarely capable of accomplishing their goals. Ronald Reagan's quip was that "The nine most terrifying words in the English language are 'I'm from the government and I'm here to help.' " The road to hell is paved with good intentions.

Just because the free market is failing does not mean that government intervention will make a bad situation better. Governments have spent trillions of dollars that turned out to have made little difference and some have even arguably been long-term counterproductive (such as much foreign aid, the war against drugs, or <u>school reforms</u> of various kinds). Of course, not all government programs have failed, either (like the reduction of odious discrimination against minorities). Yet many other interventions have been far too expensive for what they have actually delivered. Our own perspective is that government programs need more assessments of their effectiveness and less political ideologies.

Our point is that it's important to recognize that there is often an intrinsic dilemma here: government intervention is not always the panacea to existing problems that we would all like it to be. Be careful what you wish for.

### Conclusion

Unlike the earlier chapters, this chapter was a more opinionated assessment of what we deemed not viable. "We have to do something" is a common response to our analysis. However, this is an emotional appeal, not a rational argument. It is about inputs, not about outputs. It is an aspiration, not a course of action.

Although our opinion was founded on good economic analysis, some people may disagree with us and assess the promises of carbon footprints and treaties more positively. In this case, we can phrase our stand more diplomatically, too: Do you believe that carbon footprints and treaties are so promising that we can trust our future to their success, or do you think we need to look a lot harder for alternative approaches, too? If you do believe in the former, we hope that you will be proven right. As for us, we are less optimistic. You can now make up your own mind.

Fortunately, we can offer more than just nihilistic skepticism. There are approaches that are not as uncompromising and high-minded as the proposals that rule the activist echo chambers today, but we are more optimistic that they do have realistic chances of greatly reducing emissions — though not to net zero. They are the subject of our next chapter.

### **Further Readings**

#### Books

- <u>Barrett, Scott</u>, 2017, <u>Why Cooperate?: The Incentive to Supply Global Public Goods</u>. Oxford University Press, 2007.
- <u>Dressler, Andrew</u> and <u>Edward Parson</u>, 2019, <u>The Science and Politics of Global Climate</u> <u>Change: A Guide to the Debate, 3rd ed.</u> Cambridge University Press.
- <u>Easterly, William</u>, 2014, <u>The Tyranny of Experts: Economists</u>, <u>Dictators</u>, and the Forgotten Rights of the Poor, Basic Books.
- Lomborg, Bjorn, 2002, The Skeptical Environmentalist.<sup>11</sup> Cambridge University Press.

<sup>&</sup>lt;sup>11</sup>At the turn of the millennium, Bjorn Lomborg's book <u>The Skeptical Environmentalist</u> was fiercely attacked for predicting that clean technology would make a big difference. In January 2002, <u>Scientific American</u> published a scathing <u>11-page critique</u> that wreaked more strongly of hot politics than of <u>cool science</u>. Scientific American's tone (but not necessarily their counterarguments) seem inappropriate. Stephen Schneider <u>wrote</u> that "Lomborg asserts that

- <u>MacKay, David J.C.</u>, 2009, <u>Sustainable Energy Without the hot air</u>, UIT Publisher, Cambridge, England.
- <u>Sowell, Thomas, Black Rednecks and White Liberals</u>, Encounter Books. Thoughtprovoking, but read also the critiques mentioned in <u>Reception</u>.

#### **Reports and Academic Articles**

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- Sunstein, Cass, 2007, Of Montreal and Kyoto: A Tale of Two Protocols.
- <u>Teoh, Siew-Hong et al.</u>, 1999, <u>Socially Activist Investment Policies on the Financial</u> <u>Markets: Evidence from the South African Boycott</u>.
- United Nations, 2021, Nationally Determined Contributions under the Paris Agreement.
- Vanner, Robin, 2006, <u>Ex-post estimates of costs to business of EU environmental policies:</u> <u>A case study looking at Ozone Depleting Substances</u>, Policy Studies Institute.

#### SHORTER NEWSPAPER, MAGAZINE ARTICLES, AND CLIPPINGS

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- <u>Bloomberg: Air Pollution From Fossil Fuels Could Cut Lifespans by 2 to 5 Years</u>, September 1, 2021.
- Carbonbrief, 2015, Tracking Paris Pledges.
- Carbonbrief, 2018, Shared Socioeconomic Pathways explainer.
- <u>Climate Appeals by Medical Journal Editors</u>, following <u>2015</u> and <u>2021</u> Appeals.
- Coan, K.E.D., 2021, How to reduce our carbon footprint, Ars Technica, 2021/11/09.
- Dyke, James, Robert Watson, and Wolfgang Knorr, 2021, Climate scientists: concept of net zero is a dangerous trap.
- Foley, Jonathan, 2021, Greenbiz, Why the world needs better climate pledges.
- <u>Eos, Transactions, American Geophysical Union</u>, 2021, <u>Half the IPCC Scenarios To Limit</u> <u>Warming Don't Work.</u>
- ISTJ Investor, 2020. Hydrogen vs. Natural Gas for Electric Power Generation.
- <u>Pielke, Roger Jr.</u>, 2021, <u>How to Understand the new IPCC Report</u> discusses how politics and science meet.

over the next several decades new, improved solar machines and other renewable technologies will crowd fossil fuels off the market. This will be done so efficiently that the IPCC scenarios vastly overestimate the chance for major increases in carbon dioxide. How I wish this would turn out to be true! But wishes aren't analysis." In retrospect, Lomborg turned out to have been correct — and Schneider (who died in 2010) probably would have been happy to eat his words now.

- Stockholm Environment Institute, <u>2021 Production Gap Report</u>.
- The Economist, August 7, 2021, <u>How climate targets compare against a common baseline</u>.
- Worland, Justin, 2021, <u>At COP26, It's Domestic Politics, Stupid</u>, Time Magazine.
- Zytek, Roman, 2023 <u>Towards Sustainable 'Sustainable Development': Background and Challenges</u>

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