

# We must stop building a Soviet carbon economy



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The amount of effort the private sector – investors, banks and corporations – is now putting into measuring and managing carbon emissions is exhilarating. Sadly, it is doomed to disappoint. The complex hierarchy of interconnected metrics and targets we are building is increasingly resembling the Soviet Union’s planned economy – and is subject to the same structural flaws. It cannot provide the efficient solution we need, and it is diverting leadership focus and investment from more vital and strategic decisions on climate that are going unmade and unexplored.

## **A rabbit hole of complexity**

The zeal with which the private sector has embraced the measuring and managing of carbon emissions is extraordinary. Sustainable (ESG) investment has grown to the point where no company can afford to ignore ESG investors’ demands. And those demands are complex: Refinitiv, one of the leading organizations scoring companies on their ESG performance, explains its scoring methodology this way:

Refinitiv captures and calculates over 630 company-level ESG measures, of which a subset of 186 (details in the ESG

glossary, available on request) of the most comparable and material per industry, power the overall company assessment and scoring process.

These are grouped into 10 categories that reformulate the three pillar scores and the final ESG score, which is a reflection of the company’s ESG performance, commitment and effectiveness based on publicly-reported information.

The category scores are rolled up into three pillar scores – environmental, social and corporate governance. The ESG pillar score is a relative sum of the category weights, which vary per industry for the environmental and social categories. For governance, the weights remain the same across all industries. The pillar weights are normalised to percentages ranging between 0 and 100.<sup>2</sup>

Companies can expect similar scrutiny when they borrow from their banks. Already by 2021, the banks providing 95% of all lending to European corporates had at least declared the ambition to be Paris-aligned, and were designing the requisite metrics, targets and processes.<sup>3</sup> U.S. banks have been quickly catching up. Even with a narrow focus on tracking carbon emissions, the emerging metrics and targets are proving complex, as banks try to navigate between metrics too granular to manage or too aggregated to be meaningful as targets.

It is genuinely tricky. If you have a simple target for absolute emissions, it penalises a company for growing – but if it's a good company, we want it to grow and take share from higher-carbon competitors. So, you go for an intensity target – a ratio of carbon emissions per unit of something. One bank set a target to reduce its financed emissions in the oil and gas sector in terms of 'revenue-based carbon intensity', measured by how many kilograms of carbon dioxide its oil and gas clients emit per dollar of their revenue. It will doubtless show a huge reduction in 2022 – but largely driven by the rise in oil and gas prices. And next year?

Learning from that, you go for an intensity target in terms of physical output, not money – e.g., measuring a steelmaker's carbon emissions per ton of steel the company produces. That's a good and solid metric, and widely used – but it can still create perverse incentives. I can increase my score by making only certain types of steel, or by using more scrap steel in what I produce – but the world is short of scrap, so maybe we should measure carbon emissions per ton of steel for a given level of scrap use?<sup>4</sup> And what about the emissions not just from making the steel, but from mining the iron ore? And so it goes on.

How do we track and manage performance against such targets? We need data with an incredibly detailed, operational specificity, all the way along each value chain. It is not enough to know the average carbon emissions of a free-range egg. If you want to work towards a target, you need to know the emissions of *your* free-range egg, and how

they may be affected by the choice of breed, terrain, diet, transport, and so on. This is why PwC announced that it would hire 100,000 additional people, focused on climate (and diversity) reporting.<sup>5</sup> It is why Deloitte announced it would invest \$1 billion in its sustainability and climate practice.<sup>6</sup> It is why consultancy BCG has teamed up with SAP, a leader in software for managing business processes, to 'enable companies to integrate leading-edge carbon-tracking measurement and intelligence into their core business operations and strategic decision making.'<sup>7</sup>

### **Betting on the unproven**

Is the investment in creating this extraordinarily detailed overlay to our business system actually decarbonizing the world economy? Not yet, at least. While all this effort is going on, global carbon emissions are continuing to rise.<sup>8</sup>

This *could* just be because it takes time for companies' disclosures to turn into targets, targets into actions, actions into reductions in companies' emissions, and emissions reductions into a measured decrease (or, to start with, a reduced rate of increase) in carbon dioxide in the earth's atmosphere.<sup>9</sup>

We could just carry on, and find out in a few years if the benefit comes through. But while we wait until we get a good read, the world is burning through every month more than one percent of the carbon budget remaining for a 1.5°C temperature rise.<sup>10</sup> So we are currently gambling our only chance of avoiding catastrophic climate change on an approach that, for all its focus on measurement, is unproven and becoming increasingly implausible in its operational complexity.

Curiously, when it comes to climate models, most leaders are rightly wary of betting the future of the planet on realizing the most optimistic scenarios, given the uncertainties in the models. Yet the same people seem happy to bet on this leap in the dark when it comes to the transition of our economy. The likely explanation is that they have been arguing so long for climate

‘action’, that it seems churlish to question the action itself now that it is here in abundance.

But it would be foolhardy not to. So, since we can’t afford to wait until we know if it is working, let’s at least ask: *Should we expect it to work, based on our experience to date?* This paper seeks to answer this question, based on the surprising and concerning parallels between the carbon accounting system we are building, and the Soviet economic system.

### **Climate and Communism**

The analogy may seem far-fetched – particularly since the carbon system has been pioneered and shaped by some of the world’s biggest private-sector banks and investment managers, not known for their Communist sympathies. And yet:

- Both are setting out to direct economic activity across the economy and along individual value chains, without using price signals to do so;
- Both are targeting an outcome for the whole system, but working through entities (organizations and individuals) who may have different and misaligned motivations along the way;
- Both need to resolve the tension between what the plan requires and what, at the end of the value chain, the consumer wants to buy;
- Both need to anticipate, facilitate and exploit innovations in technology and organization, embracing the dynamism of a system that would be unbelievably complex even if it were static.

### **Realities of counting carbon**

Is the carbon situation really that complicated? It would be manageably simple if what we needed was for each organization to work on operationally reducing its own emissions. They could each disclose emissions levels, set targets, and measure progress. It would be a portfolio of thousands of individually managed efforts. Carbon accounting would look like financial ac-

counting, measuring each player’s carbon emissions along the value chain like we measure profit.

But the reality is a lot more complex and interconnected:

1. The system does not work if companies can easily offload the problem from a carbon accounting point of view, without actually reducing emissions. If I am concerned only with my own company’s direct emissions, I can outsource any carbon-intensive activities to someone else, probably privately owned so they don’t have the same investor scrutiny. We already see such businesses buying up oil and gas assets that public companies have been pressured to divest.<sup>11</sup>
2. For many businesses, the biggest impact they can have is in affecting suppliers’ or customers’ emissions up and down the value chain. For example, the big food groups are the players most able to influence farming practices, through their procurement. This has much more carbon impact than any reductions the food groups make in their own operations.<sup>12</sup>
3. Once we approach net zero, then emissions numbers across different sectors may be meaningful numbers in themselves. Today, they are meaningful only relative to norms, which need to be defined and established, and which depend on context. We are trying to track, and facilitate a transformation, so where a company is starting from affects what its reasonable targets should be along the journey.
4. Actions in one part of the value chain can affect the efficacy of actions in another. For example, there is no emissions benefit in saving electricity if the electricity is already renewable. Conversely, if the supply of renewables is limited, there is questionable emissions benefit in ‘claiming’ some of the existing renewable energy in your name, e.g. by buying ‘green aluminium’ made using hydroelectric power.

5. Actions that may be smart long-term investments in carbon reduction may not reduce emissions in the short term (and vice versa). For example, green hydrogen – made by the hydrolysis of water powered by electricity – will be invaluable once renewable electricity is plentiful, but can be more carbon intensive than blue hydrogen (made from natural gas) where renewable electricity is scarce.

The simple theory of emissions disclosures and targets therefore turns into a complex, interconnected reality, with all ‘the strains and limitations necessarily imposed by such considerations as the collection and dissemination of information, the remoteness of decision-makers, aggregation, problems of motivation, and above all “the curse of large numbers”, the sheer magnitude of the work of calculating, allocating, evaluating, checking, financing.’ Which is a contemporary description, not of carbon accounting today, but of the Soviet economic system in the 1970s.<sup>13</sup>

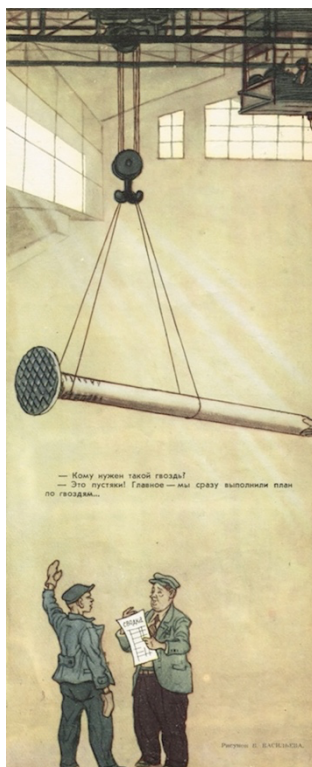
### The Soviet experience

The Soviet comparison is instructive because the problems come from the same root cause: the challenge of motivating the desired activities of an immensely complex and interconnected system without using a price mechanism. The Soviet system struggled with target-setting, because:

1. The system was too complex and dynamic for anyone to know what the optimal targets should be. ‘In a basically non-market model, the centre must discover what needs doing, and the centre *cannot* do this in micro-detail.’<sup>14</sup> This is a fundamental tension between the level at which targets are set, and the realities where they are delivered. ‘The problem is that the centre is trying to set up an incentive system designed to achieve more efficiency, but, because it does not *and cannot* know the specific circumstances, its instructions can frequently contradict what those on the spot know to be the sensible thing to do.’<sup>15</sup> Carbon target-setters today face
- the same dilemma. Bank clients are wary of banks prescribing climate transition pathways too specifically, as the client knows the business better; but are the bank’s targets useful if they don’t steer the client’s actions?
2. To be meaningful, norms had to be narrow and specific. For example, Gosplan, the State Planning Committee of the USSR, had a norm for how much steel wire a farm should need for pressing hay. And they had no way to evolve these norms based on what became possible.<sup>16</sup> We have seen above how climate target face both these challenges: the need for tightly defined norms in order to be meaningful, and the challenge of refining them as innovations occur or the context changes elsewhere in the value chain, e.g. with the abundance of renewable electricity.
3. Aggregated targets covering multiple products drove perverse incentives. Setting targets in tons led to factories producing only the heavy products within the mix; setting targets in volumes led to only flimsy ones. In the extreme, a famous cartoon showed a foreman pleased to have fulfilled his plan by creating one giant nail (see figure). Similarly, companies today find it tempting to meet their climate goals by rebalancing their portfolios (whether of products they make, or companies they finance) than by reducing carbon emissions within the individual products or companies.
4. Targets at each stage of the value chain were in conflict with each other, and with the end goal for the customer.<sup>17</sup> Leonid Brezhnev himself observed that, ‘the end results increasingly depend on innumerable intermediate elements, on an intricate system of intra-branch and inter-branch links. In this situation it is easy to miss the main thing, the end results, in the pursuit of intermediate results which by themselves do not decide the matter. And vice versa, without paying due attention to some inter-

mediate elements the end, cumulative effect of large efforts and investments may be undermined. Regrettably, we still encounter such situations everywhere.<sup>18</sup>

In today's carbon world, we see big investments in one part of the value chain to meet apparent demand from the next step along the chain, that is not (yet) grounded in demand from consumers. For example, steelmakers are competing to make 'green steel' to meet demand they see from the car industry; the car manufacturers in turn want to be able to tell the story of their zero-carbon cars – but nobody yet knows if consumers will pay more for them, and individual car manufacturers cannot afford to take on the cost of building zero-carbon cars if others do not follow and consumers do not pay.



*"Who needs such a nail?"*

*"It doesn't matter! The point is, we've instantly fulfilled the plan for nails..."*

Source: *Krokodil*, 1954, issue 5, p5

The parallel matters because these flaws proved structural and not fixable for the Soviet economic system, despite a long series of economic reforms.

## Escaping the rabbit hole

The claim here is not that the approach we are taking is bound to be a complete failure. After all, the Soviet economy did work after a fashion, and might even fare better today with Big Data and Artificial Intelligence. But we cannot depend on it succeeding. We should not therefore be betting the future of civilization on this Soviet-like approach, which by default is what we are doing.

The practical reason that this matters, beyond the obvious, is that all the activity dedicated to building our Soviet system is crowding out the more strategic thinking and action that we need and are currently missing. Here are three examples of big-picture questions that we are currently failing to resolve, or even discuss, while we have our heads down creating the accounting system for our Soviet carbon economy. We aim to explore each in depth in a subsequent paper:

### 1. Something's got to give

Progress and prosperity have always come with both using more energy and depleting our environment – most dramatically in the three big steps forward that came with fire, farming and fossil fuels.

Now, we are bound to do something that humanity has never done before. Will we invent how to grow prosperity without energy? Or invent how to increase energy use without the planetary impact? Or voluntarily suppress our progress? Or face unabated climate change?

Any plan for the future implicitly assumes at least one of these, but there is no consensus on which, no recognition of this inevitable choice, and no convincing solutions. So what is going to give way?

### 2. Planning for make-believe

We might think that any responsible business should plan and invest for a Paris-aligned future, with a temperature rise limited to 1.5°C. But we know that the world today is not on track for such a future, and as time goes on the divergence may become substantial. In that situation, is it more re-

sponsible to plan for the future you might like, or the one you expect to see?

Some companies are already challenging – and being challenged by – their investors about this divergence. And if these reality checks stop companies from planning for the desired Paris goal, what does it really take to ‘keep 1.5°C alive’?

### 3. Working with capitalism

Despite the rhetoric, we cannot rely on stakeholder capitalism saving the day, changing how companies choose to act. Such change could not happen quickly. And it might not even help: all stakeholders tend to act for their short-term self-interest, which is why the originator of the triple bottom line recently issued a ‘product recall’ for the idea, responding to how it had been diluted and abused.<sup>19</sup>

Even when Britain ended West Indian slavery, it did so not when moral arguments started to challenge commercial interests, but when commercial interests started to align with it ending, as Britain shifted from an agricultural economy based on monopolies to an industrial economy based on comparative advantage. The challenge for us today is, how can we align companies’ commercial interests with the climate transition agenda?

We must not let this much-referenced ‘decade of delivery’<sup>20</sup> turn out to be a wasted decade of activity for the sake of activity. To truly deliver, we need to make ourselves look up from carbon-counting activities, and wise up to the bigger picture.

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Zero Ideas is challenging business thinking on climate change. We seek to accelerate and deepen the approaches that businesses take to tackling climate change by stimulating a curious and visionary mindset among business leaders, encouraging them to go beyond today’s focus on carbon accounting and reporting.

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<sup>1</sup> Environmental, Social and Governance

<sup>2</sup> [www.refinitiv.com/content/dam/marketing/en\\_us/documents/methodology/refinitiv-esg-scores-methodology.pdf](http://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/refinitiv-esg-scores-methodology.pdf) p6

<sup>3</sup> CDP Europe and Oliver Wyman, *Running hot: Accelerating Europe’s path to Paris*, March 2021

<sup>4</sup> [www.responsiblesteel.org/wp-content/uploads/2021/04/RS-CRU-Webinar-Slides-Final.pdf](http://www.responsiblesteel.org/wp-content/uploads/2021/04/RS-CRU-Webinar-Slides-Final.pdf) p17

<sup>5</sup> [www.reuters.com/business/sustainable-business/pwc-planning-hire-100000-over-five-years-major-esg-push-2021-06-15/](http://www.reuters.com/business/sustainable-business/pwc-planning-hire-100000-over-five-years-major-esg-push-2021-06-15/)

<sup>6</sup> [www.accountingtoday.com/news/deloitte-invests-1b-in-sustainability-and-climate-practice](http://www.accountingtoday.com/news/deloitte-invests-1b-in-sustainability-and-climate-practice)

<sup>7</sup> [www.bcg.com/press/22march2022-bcg-sap-join-forces-transform-companies-sustainable-enterprises](http://www.bcg.com/press/22march2022-bcg-sap-join-forces-transform-companies-sustainable-enterprises)

<sup>8</sup> [www.iea.org/reports/global-energy-review-co2-emissions-in-2021-2](http://www.iea.org/reports/global-energy-review-co2-emissions-in-2021-2)

<sup>9</sup> “Primary driver of global warming is accelerating at ‘maximum speed’,” [www.ft.com/content/86eae04-40e8-4942-b816-33b66534e6f8](http://www.ft.com/content/86eae04-40e8-4942-b816-33b66534e6f8)

<sup>10</sup> [www.mcc-berlin.net/en/research/co2-budget.html](http://www.mcc-berlin.net/en/research/co2-budget.html)

<sup>11</sup> [www.economist.com/finance-and-economics/who-buys-the-dirty-energy-assets-public-companies-no-longer-want/21807594](http://www.economist.com/finance-and-economics/who-buys-the-dirty-energy-assets-public-companies-no-longer-want/21807594)

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<sup>12</sup> Simon Glynn and Amy Spruce, *Getting real: A blueprint for a commercially smart climate transition*, Oliver Wyman and the Climate Group, September 2021

<sup>13</sup> Alec Gove, *The Soviet economic system*, George Allen & Unwin, 1977, p34

<sup>14</sup> *Ibid.* p86

<sup>15</sup> *Ibid.* p108

<sup>16</sup> *Ibid.* p41

<sup>17</sup> *Ibid.* p96

<sup>18</sup> Leonid Brezhnev, in *Report of the CPSU Central Committee and the immediate tasks of the Party in home and foreign policy*, XXVth Congress of the CPSU, Novosti Press Agency, Moscow, 1976

<sup>19</sup> John Elkington, *25 years ago I coined the phrase "triple bottom line." Here's why it's time to rethink it*, Harvard Business Review, 25 June 2018

<sup>20</sup> [www.gov.uk/government/speeches/international-action-and-collaboration-for-a-decade-of-delivery-on-climate-change](https://www.gov.uk/government/speeches/international-action-and-collaboration-for-a-decade-of-delivery-on-climate-change)