No security without climate security

By Anne-Marie Slaughter/ Washington, DC

In July, CIA Director William Burns gave a 45-minute interview at the Aspen Security Forum. Only at the very end, following questions about the Russia-Ukraine war, China, Taiwan, Iran, and Afghanistan, was Burns asked what the CIA can do to identify where climate change is most likely to cause conflicts to erupt.

Burns's answer was unequivocal. First, he noted that climate change is "an important priority for the CIA and the US intelligence community." He then said that while he considers China "the biggest geopolitical challenge that our country faces in the 21st century," he also views climate change as the "biggest existential threat" to the United States.

Existential risk, as the Stanford Existential Risks Initiative defines it, is a risk that "could cause the collapse of human civilisation or even the extinction of the human species." Burns probably had something less extreme in mind – perhaps a catastrophic event that would wreak irreparable harm and

change life as we know it. But still, in this week-long forum dedicated to national and international security discussions, no panel focused specifically and entirely on climate change.

That's not unusual. As Burns pointed out, climate change does not fit the traditional definition of a national-security threat. As such, it falls within the jurisdiction of other government departments.

Yet if climate change poses an existential threat to the US, then the US defence apparatus must participate in the fight against it. Under Burns's leadership, the CIA has established a mission focused on helping "policymakers in the US government understand the consequences of climate change in already fragile societies." The National Security Council, the State Department, and the Pentagon all have units that focus on climate-change-related conflicts abroad. Still, what about the direct impact of climate change on the US? Generals, after all, do not stop fighting wars when the fighting spreads from foreign to American soil.

Science-fiction writers have no trouble bringing the future home to the present. For example, Omar El Akkad's 2017 novel American War opens with a map of the US in 2075: Florida, New Orleans, New York City, Long Island, and Los Angeles are all underwater. Kim Stanley Robinson's 2020 novel The Ministry for the Future begins with a heatwave in India that overwhelms the power grid and kills 20mn people.

In the scenario Robinson imagines, temperatures in Uttar Pradesh reach a "wet bulb temperature of 42 degrees centigrade." An extreme scenario? Consider that in California's recent heatwave, temperatures in the Bay area and Sacramento Valley reached 46.6C (115.9F) and that California prepared for brownouts and blackouts. As the thermometer breaks records, the prospect of hundreds of thousands of Americans dying in a heatwave does not seem far-fetched.

Perhaps the problem is that an existential "risk" is not yet an existential "threat," whereas the war in Ukraine, Chinese militarism, and Iranian nuclear aspirations demand immediate attention. But tell that to the hurricane, fire, and flood

victims who have suffered the consequences of catastrophic weather over the past decade. The Colorado River, Lake Mead, and the Great Salt Lake are disappearing now. Sea-level rise is already making itself felt in Norfolk and Miami. The future, as scientists keep telling us, is already here.

To be fair, Congress and President Joe Biden have done more than any previous administration. With the Inflation Reduction Act, Biden has secured a historic legislative victory that will enable the US to meet its international obligations to reduce carbon dioxide emissions. At the most recent United Nations climate change conference, Special Presidential Envoy John Kerry negotiated a crucial deal with the Chinese to allow the world to move forward with its climate commitments.

Moreover, US national-security officials have their hands full. The risk that Russia will use a nuclear weapon in Ukraine is real and rising, and violating the nuclear taboo could draw Nato countries into a nuclear great-power war that could wipe out all of humanity. A nuclear conflict with China would be equally deadly, and Iran’s acquisition of nuclear weapons would also lead to nuclear proliferation across the Middle East, effectively gutting the Nuclear Non-Proliferation Treaty and significantly increasing the risk of nuclear war and nuclear terrorism.

Still, the real measure of how much importance the American government attaches to a particular threat is the amount of time and money it invests in addressing it, and I doubt that Biden and his advisers spend more than 10% of their time on preparing for the impact of climate change. The issue is one of perspective: national-security officials operate in a world of geopolitics, competition, and co-operation among countries. They are trained to deter, prevent, and fight wars or to negotiate peace with other governments, not to deal with global threats that transcend national borders. As the adage goes, when all you have is a hammer, every problem looks like a nail.

Bill Burns got it right. Climate change is an existential threat, and the Biden administration and the US national-

security establishment must treat it like one. Doing so would require reallocating substantial funds from the military to government agencies that focus on building domestic resilience and civil protection. It would also require creating new security agencies whose mandate would be to address global threats.

Minimising the risk of climate change will not be easy, but we have no choice. To paraphrase Game of Thrones, a long and deadly summer is coming. If we do not rise to the challenge, many Americans will not survive. – Project Syndicate

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The high stakes of climate-risk accounting

By Gernot Wagner And Tom Brookes/ New York

Economists are supposed to be good at understanding risk. Decision-making in the face of uncertainty, after all, is the discipline's bread and butter. Yet at a time when real-world risks – geopolitical, macroeconomic, financial, public-health, and environmental – are piling up, many economists seem to be at a loss.

Although businesses and investors stand to make a lot of money if they can properly assess and navigate the current risk environment, no one seems to have a good explanation for why we are where we are. This is especially true in the case of climate change: It is now clear that the risks have been systematically underestimated, and thus mispriced, all along.

One explanation for this is that market participants have failed to understand the size and the probability of the risk, because they have been thinking about the issue in the wrong way. The climate system is not like a casino with well-defined outcomes and probabilities. As a 1987 comment in Nature put it, changes within our planet's systems may bring all kinds of "unpleasant surprises." It is as if we were playing with decks of cards that include some unknown number of jokers. Moreover, one also must account for the inherent conservatism of the

science. Climate researchers, especially, tend to err on the side of caution.

A classic case is the quantification of sea-level rise. Broadly speaking, sea levels rise for three reasons: melting polar ice caps, melting inland glaciers, and the fact that warmer water takes up more space. But in the Intergovernmental Panel on Climate Change's reports in the early 2000s, the headline figures fully accounted only for melting glaciers and thermal expansion. Scientists of course knew that global warming would melt polar ice, and that this effect might be the most consequential of the three. But because the estimates for how much faster the poles would melt differed by so much at the time, they were excluded from the headline figures.

That omission has long since been corrected. But it is now economists who are lagging behind in quantifying the economic damages associated with rising seas and the many other interlinked risks and uncertainties accompanying climate change. Quantifying climate-related damage is painstaking work; and in an academic environment that prizes new ideas over what might seem like a mere "accounting" exercise, it is not the kind of work that brings much reward or recognition.

Nonetheless, economists going back to Simon Kuznets, the "father" of the gross domestic product, have been some of the leading critics of economic metrics that purport to represent overall well-being. GDP is central to macroeconomic analysis, but it leaves out many other important indicators, such as those measuring human and planetary health. Standing forests and clean air and water have no value in national-income accounting unless they enter the economy directly as factors of production.

Fortunately, an initiative by US President Joe Biden's administration aims to correct this shortcoming by developing a new set of "statistics for environmental-economic decisions." While this effort is not the first of its kind in the world, it is among the most ambitious. The goal is to supplement GDP with a far more comprehensive set of accounts, and then to use this new metric to guide policy decisions.

Such a change is long overdue. Climate change might not have grown into the problem that it has become if its damages had been incorporated into national accounts all along.

This points to a second, equally important reason why climate and other risks have been mispriced. It is one thing for scientists, economists, and informed members of the public to recognise that many risks and uncertainties are not priced; it is quite another to adopt policies that discourage businesses from pushing those risks onto society.

For business leaders, the top climate risk, according to a recent Federal Reserve Bank of San Francisco survey, is that climate change will influence "rules and regulations related to our business." Executives correctly anticipate that policymakers will want them to pay for greenhouse-gas emissions and other negative externalities instead of being permitted to socialise those costs.

Such measures inevitably will fall into the realm of politics, but economists must not confuse their political preferences with sound policy. Those who are ideologically inclined to look to the "free" market as a guiding principle for organising society must recognise that a market can function well only when no externality is left unaccounted and unpaid for.

Another Biden administration accounting initiative could help here. The US Securities and Exchange Commission's proposed rules for climate-related disclosures would compel companies to standardise and report both the impact of their operations on the climate and the risks that climate change poses to those operations. The SEC's effort stops short of asking all polluters to pay for their own pollution; instead, it leaves it up to investors to decide what to do with the new information.

Economists must defend the pivotal role their advice plays in policymaking. The political forces and special interests that bear on this issue will skew their advice and skewer the advisers. But that must not become an excuse for inaction. Intellectual honesty demands that economists and policymakers

grapple with how new risks and uncertainties can and will affect outcomes.
Tallying what’s known is hard enough. Accounting for hard-to-price risks and uncertainties like climatic tipping points is harder still. But recognising those risks and uncertainties makes clear that political action must come sooner rather than later. – Project Syndicate

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Turkey-Libya preliminary deal prompts Greece, Egypt to push back

TRIPOLI, Oct 3 (Reuters) – Libya's Tripoli government signed a preliminary deal on energy exploration on Monday, prompting Greece and Egypt to say they would oppose any activity in disputed areas of the eastern Mediterranean.

Libya's eastern-based parliament, which backs an alternative administration, also rejected the deal.

Speaking at a ceremony in Tripoli, Turkish Foreign Minister Mevlut Cavusoglu and Libyan Foreign Minister Najla Mangoush said the deal was one of several in a memorandum of understanding on economic issues aimed at benefiting both countries.

It was not immediately clear whether any concrete projects to emerge would include exploration in the "exclusive economic zone" which Turkey and a previous Tripoli government agreed in 2019, angering other eastern Mediterranean states.
That zone envisaged the two countries sharing a maritime

border but was attacked by Greece and Cyprus and criticised by Egypt and Israel.

“It does not matter what they think,” said Cavusoglu when asked if other countries might object to the new memorandum of understanding.

“Third countries do not have the right to interfere,” he added.

Greece’s foreign ministry said on Monday that Greece had sovereign rights in the area which it intended to defend “with all legal means, in full respect of the international law of the sea.”

It cited a 2020 pact between Athens and Egypt, designating their own exclusive economic zone in the eastern Mediterranean, which Greek diplomats have said effectively nullified the 2019 accord between Turkey and Libya.

“Any mention or action enforcing the said ‘memorandum’ will be de facto illegitimate and depending on its weight, there will be a reaction at a bilateral level and in the European Union and NATO,” the Greek foreign ministry said in a statement.

An Egyptian foreign ministry’s statement said on Monday that Foreign Minister Sameh Shoukry received a phone call from his Greek counterpart, Nikos Dendias, where they discussed the developments in Libya.

They both stressed that “the outgoing ‘government of unity’ in Tripoli does not have the authority to conclude any international agreements or memoranda of understanding,”the Egyptian foreign ministry’s statement added.

Dendias posted on Twitter about his phone call with Shoukry, saying both sides challenged the “legitimacy of the Libyan Government of National Unity to sign the said MoU,” and that he will visit Cairo for consultations on Sunday.

Turkey has been a significant supporter of the Tripoli-based Government of National Unity (GNU) under Abdulhamid al-Dbeibah, whose legitimacy is rejected by the Libyan parliament.

Parliament Speaker Aguila Saleh, seen as an ally of Egypt, said the memorandum of understanding was illegal because it was signed by a government that had no mandate.

The political stalemate over control of government has thwarted efforts to hold national elections in Libya and threatens to plunge the country back into conflict.

Multi-billion dollar North Field development enters key phase

Pratap JohnThe multi-billion dollar North Field development,

the largest ever LNG project in the world, has reached a crucial phase with QatarEnergy beginning to announce partners for NFS project that will further increase Qatar's liquefied natural gas production capacity from 110mn tonnes per year to 126 mtpy by 2026 or 2027.

The North Field South (NFS) has many unique features, the foremost of which is its advanced environmental characteristics. This includes significant carbon capture and sequestration technologies and capacity.
NFS comprises two mega LNG trains with a combined capacity of 16mn tonnes per year.
QatarEnergy's first partner in the NFS project is TotalEnergies, which will have an effective net participating interest of 9.375% out of a total 25% interest available for international partners.
QatarEnergy will hold a 75% stake in the NFS project, HE the Minister of State for Energy Affairs Saad bin Sherida al-Kaabi said at a media event in Doha recently.
"The other partners in this project will be announced in due course," HE al-Kaabi said.
The minister noted: "We are committing big investments to lower the carbon intensity of our energy products, which constitute a key pillar of QatarEnergy's sustainability and energy transition strategy."
QatarEnergy targets more than 11 mtpy of carbon capture and storage (CCS) and the production of 5GW of solar power by 2035, HE al-Kaabi said, highlighting Qatar's commitment to CCS and renewable energy production.
"QatarEnergy is moving forward to help meet the growing global demand for cleaner energy, of which LNG is the backbone for a serious and realistic energy transition," he said.
Recently, QatarEnergy announced the Ammonia-7 Project, the industry's first world-scale and largest blue ammonia project with a capacity of 1.2 mtpy."
Blue ammonia is produced when the carbon dioxide generated during conventional ammonia production is captured and stored. It can be transported using conventional ships and then be used in power stations to produce low-carbon electricity.
The new plant, which is estimated to cost $1.156bn, will be located in the Mesaieed Industrial City (MIC) and will be

operated by Qafco as part of its integrated facilities.
In August, QatarEnergy's affiliates, QatarEnergy Renewable Solutions (QRS) and Qatar Fertiliser Company (Qafco) signed the agreements for the construction of the Ammonia-7 project, the industry's first world-scale as well as the largest blue ammonia train, which is expected to come into operation by the first quarter of 2026.
The North Field Expansion Project, comprising NFS and the North Field East (NFE) expansion projects, is the industry's largest ever LNG project.
It will start production in 2026 and will add more than 48 mtpy to the world's LNG supplies. Five partnership agreements have been signed in June and July this year covering the NFE project, which comprises four mega LNG trains with a combined capacity of 32 mtpy.
"Most project contracts have been awarded, while the onshore EPC contract is expected to be awarded in early 2023," HE al-Kaabi noted.

Europe gas crisis is bigger than its mega rescue plan

Craig Stirling and Elena Mazneva

(Bloomberg) — The economic damage from the shutdown of Russian gas flows is piling up fast in Europe and risks eventually eclipsing the impact of the global financial crisis.

With a continent-wide recession now seemingly inevitable, a harsh winter is coming for chemical producers, steel plants and car manufacturers starved of essential raw materials who've joined households in sounding the alarm over rocketing energy bills. The suspected sabotage of Germany's main pipeline for gas from Russia underlined that Europe will have to survive without any significant Russian flows.

Building on a model of the European energy market and economy, the Bloomberg Economics base case is now a 1% drop in gross domestic product, with the downturn starting in the fourth quarter. If the coming months turn especially icy and the 27 members of the European Union fail to efficiently share scarce fuel supplies, the contraction could be as much as 5%.

That's about as deep as the recession of 2009. And even if that fate is avoided, the euro-area economy is still on track to spend 2023 suffering its third biggest contraction since World War II — with Germany among those suffering the most.

“Europe is very clearly heading into what could be a fairly deep recession,” said Maurice Obstfeld, a former chief economist at the IMF who’s now a senior fellow at the Peterson Institute for International Economics in Washington.

The bleak outlook already means that, seven months on from the outbreak of war in Ukraine, governments are shoveling hundreds of billions of euros to families at the same time as they bail out companies and talk of curbs on energy-usage. And those rescue efforts may still fall short.

Adding to the pressure on companies and consumers, the European Central Bank is also squeezing the economy as its new laser-like focus on surging inflation drives the fastest hiking of interest rates in its history. ECB President Christine Lagarde said Monday that she expects policy makers to lift borrowing costs at the next several meetings. Traders are already pricing in a jumbo 75 basis-point hike at the next monetary policy meeting on Oct. 27.

“The outlook is darkening,” Lagarde told EU lawmakers in Brussels. “We expect activity to slow substantially in the coming quarters.”

Some energy-industry watchers warn of a lasting crisis that potentially proves bigger than the oil-supply crunches of the 1970s. Indeed, the final impact of the shortages could be even worse than economic models can capture, Jamie Rush, Bloomberg’s chief European economist, said.

In an energy crunch, the industrial supply chain can break down in dramatic and unpredictable ways. Individual businesses have a breaking point above which high energy costs simply mean they stop operating. Whole sectors can face shortages of energy-intensive inputs such as fertilizer or steel. In the power system, once a blackout starts, it can quickly get out of control, cascading across the grid.

“Our analysis is a sensible starting point for thinking about

the channels through which the European energy markets affects the economy," Rush said. "But it cannot tell us the impact of system failures."

As a witness to the pain, consider the experience of Evonik Industries AG, one of the world's largest specialty chemical manufacturers, based in western Germany's industrial Ruhr valley. In a statement to Bloomberg, the company warned of the potential long-term harm from persistently high costs.

"The basic condition for the prosperity of the German economy, and in particular of the industry, is the permanent availability of energy, also from fossil sources, at reasonable prices," the company said.

It's not alone. Volkswagen AG, Europe's biggest carmaker, is exploring ways to help its broad supplier network in Europe counter a shortage in natural gas, including making more parts locally and shifting manufacturing capacity. Domo Chemicals Holding NV, which jointly operates Germany's second-biggest chemical plant, is cutting production in Europe, while Italian truckmaker Iveco Group NV has said it's holding talks with suppliers about their struggles with energy prices.

Data released just last week showed private-sector activity in the euro zone contracted for a third month in September, with an index of purchasing managers compiled by S&P Global slumping to its lowest level since 2013. Meanwhile the crisis has also driven consumer confidence to a record low.

The problem began to take root last year when energy prices started to soar as demand recovered from the Covid-19 pandemic, and Russian President Vladimir Putin began to quietly restrict gas supplies to Europe.

His invasion of Ukraine in February plunged the economy into further chaos amid ballooning inflation, a deepening cost-of-living crisis, and cuts to industrial production. By early September, the limited gas that had still been running through

the Nord Stream 1 pipeline from Russia to western Europe had stopped indefinitely.

The pipeline suffered a sharp drop in pressure this week and a German security official said the evidence points to deliberate sabotage rather than a technical issue. Gas leaks from three pipelines appeared almost simultaneously in the Baltic Sea, prompting Denmark to say it was stepping up security around its own energy assets.

To put that in context, a year earlier such gas supplies, including LNG, covered around 40% of Europe's total demand. So while gas and power prices have slipped from August records, they are still more than six times higher than normal in some areas. At that price, thousands of companies simply aren't viable in the long term without government support.

For Bloomberg Economics, the baseline scenario – estimated using a suite of models that combine energy supply, prices, and growth – is now one where Russian flows hold at around 10% of those seen in 2021. That's already pretty dire, according to economists Maeva Cousin and Rush.

"Even after government support, the real income squeeze is big enough to trigger a recession," they said.

Their "bad luck" scenario features even less gas, a winter as cold as 2010, and low production from renewable energy.

"If consumer behavior proves sticky and unity between EU countries begins to break down, gas prices could spike above 400 euros, inflation could approach 8% next year and the economy might contract by almost 5% this winter," they said.

Politicians already opened the fiscal floodgates to avert an economic catastrophe during the pandemic and kept up support as the energy crisis took hold. Now they have to choose whether to further strain public finances with more aid or answer to voters for allowing the crisis to spiral out of

control.

“Governments are under enormous pressure to intervene,” said Dario Perkins, an economist at TS Lombard in London. “Price caps, liquidity support and big fiscal transfers seem inevitable. The authorities must support households and businesses or suffer a recession similar to the one they dodged during the pandemic.”

- The European Commission proposed measures to help reduce the impact on consumers, including raising 140 billion euros from energy companies’ earnings, mandatory curbs on peak power demand, and boosting energy-sector liquidity
- Germany injected 8 billion euros into utility Uniper SE in a government rescue whose cost will likely run into the tens of billions of euros
- France will budget 16 billion euros to limit power and gas price increases to 15% for households and small companies next year
- Italy’s cabinet approved a 14 billion-euro aid plan to help companies squeezed by rising costs in Mario Draghi’s final act before the Sept. 25 election
- The Netherlands unveiled a 17.2 billion-euro support package for households, including a hike in the minimum wage and higher taxes on corporate profits

Totting up all the red ink, the Bruegel think-tank estimates that as of the middle of September, EU governments had earmarked 314 billion euros to cushion the crunch’s impact on consumers and businesses.

That will take its toll on the region’s public finances, and Simone Tagliapietra, a researcher at Bruegel, described the bill as “clearly not sustainable from a fiscal perspective.”

The lingering fear of the energy industry is that the pain of coming months may only be the start. Christyan Malek, JPMorgan

Chase & Co's global head of energy strategy, told Bloomberg TV this month that once Beijing eases Covid restrictions Chinese demand for LNG will increase, leading to more competition and more price pressures for Europe.

"This is not just a three-month problem," said Anouk Honore, senior research fellow at Oxford Institute for Energy Studies. "This is potentially a two-year problem."

(Updates with details of Nord Stream incident in second and 17th paragraphs. An earlier version of this story corrected a reference to Volkswagen disruption.)

European goodbye to negative rates – or is it just 'au revoir'?

By Mark John And Dhara Ranasinghe/ London

Europe’s decade-long experiment with negative interest rates, which ended on Thursday with the Swiss National Bank’s return to positive territory, showed one thing: they can exist beyond the realms of economic science fiction.

Launched to revive economies after the 2007/08 financial crisis, the policy flipped standard money wisdom on its head: banks had to pay a fee to park cash with their central banks; some home-owners found mortgages that paid them interest; and rewards for the act of saving all but vanished.

With the exercise now abandoned in the face of galloping inflation brought on by pandemic and the Ukraine war, doubts linger over its effectiveness and under what circumstances it will ever be used again.

“I think that probably the bar is going to be higher in the future,” said Claudio Borio, head of the Monetary and Economic Department of the Basel-based Bank of International Settlements which acts as bank to the world’s central banks.

Rarely does monetary policy generate as much sound and fury as did the recourse in the early 2010s to negative rates by four European central banks and the Bank of Japan – now the only monetary authority still sticking with them.

With interest rates back then already close to zero, they had run out of conventional ammunition to ward off the threat of outright deflation they feared would choke off the economic recovery. The only way out, they decided, was to go below zero.

Bank chiefs fumed as the European Central Bank, Swedish Riksbank, Swiss National Bank (SNB) and Denmark’s Nationalbank went negative in moves they said undermined the whole banking business model of being able to make a profit out of lending.

Local media joined in the criticism, with Swiss newspapers in 2015 calling the moment “Frankenshock” and Germany’s Bild labelling the then ECB chief Mario Draghi “Count Draghila” for “sucking our accounts dry”.

For sure, those who relied on the return from cash savings clearly suffered during Europe’s period of ultra-low to negative rates – even if they could at least take solace from

the fact that low inflation was protecting their initial savings.
Other side-effects are harder to pick apart.
Fears of negative rates leading to money-hoarding proved largely unfounded: in Switzerland, for example, the number of 1,000-franc notes in circulation remained the same, suggesting customers were not withdrawing cash to store in a safe at home.
As one Danish bank vaunted the world's first negative rate mortgage, it is likely that cheap borrowing added steam to house price spikes across the region. But prices were often being squeezed higher by local factors including tight supply.
While many other elements have been at play, euro area bank stocks have fallen some 45% since 2014 – despite ECB moves to shield them with exemptions from charges on some deposits and access to ultra-cheap borrowing.
Yet a report to European Parliament by the Bruegel think tank last year concluded that overall bank sector profits had not been significantly harmed by negative rates, noting that the downside was being offset by gains in asset investments.
"In the end, they worked the same as normal rate cuts," said report co-author Gregory Claeys, while acknowledging the impact may have been greater had the experiment gone on for longer.

No future?

The question of whether negative rates actually achieve their goals is harder to answer given the modest extent of the trial – no-one ever went lower than minus 0.75% – and the fact that they have been swept aside by the turmoil of the last two years.
ECB policy-makers point to data showing that lending in the euro zone was shrinking year after year in the 2010s until negative rates helped turn that into growth by 2016 – even though that growth has never attained its pre-2009 heights.
Others point to the fact that the negative rate period coincided with the vast quantitive easing with which the ECB

and other central banks around the world also boosted demand with trillions of dollars of asset purchases.

“That was a much bigger deal – much more impactful,” said Brian Coulton, chief economist at Fitch Ratings. “Using your balance sheet aggressively – that is a powerful weapon.”

Some economists argue negative rates create perverse incentives that ultimately do a disservice to the economy – for example by keeping alive “zombie companies” that by rights should fold, or by removing the impetus for governments to push tough reforms.

“What is lacking, in Europe, is the focus on structural reforms. Why didn’t they happen in the last 10 years, why didn’t we strengthen productivity growth?” said Societe Generale senior European economist Anatoli Annenkov.

Burkhard Varnholt, Chief Investment Officer Switzerland, Credit Suisse Switzerland, goes further, saying the message they send about investing in the future was even akin to the nihilism of the No Future refrain of the 1977 Sex Pistols’ punk rock track God Save the Queen.

“It’s the central bankers who have taken interest rates to a level where we attach no value to the future,” he said. “Today’s punks wear white shirts, grey suits and a blue tie.”

As the negative rate era closes, the global pool of assets with negative yield has shrunk to less than $2tn from a 2020 peak of some $18tn.

Despite the misgivings, others say the experiment has at least shown policy-makers that rates can go below zero and so is an option for them: witness the fact the Bank of England for a while considered that path as Covid-19 was ravaging the economy.

Even if the current inflationary bout means it could be a while before Europe’s central bankers need to use negative rates again, it is unlikely they will want to rule them out.

“They will always be spoken of as something that remains in the toolkit,” said Rohan Khanna, strategist at UBS in London. “I am very doubtful anyone here is ready to say never again for negative rates.” – Reuters

The EU’s carbon border tax could hurt developing nations

By Miriam Gonzalez Durantez And Calli Obern/ Stanford

In July 2021, the European Commission did something that no other major governing body had ever attempted: It tied trade policy to climate policy. Reaching the European Union’s goal of cutting net greenhouse-gas emissions by 55% by 2030 will require the EU to reduce emissions both at home and beyond its borders. To this end, the Commission’s Fit for 55 initiative, a package of proposals aimed at meeting the bloc’s emissions-reduction target, includes a carbon border adjustment mechanism (CBAM) — an import tax designed to corral other countries into tackling climate change.

The CBAM would tax imported goods sold in EU markets on the basis of their carbon content (the emissions required to produce them), which depends on their material and energy inputs. The proposed levy is intended to address so-called

carbon leakage, which occurs when businesses in the EU move production to non-member countries with less stringent emissions rules.

In other words, Europe would no longer ignore the climate effects of foreign goods. But while the measure could help to reduce emissions and level the competitive playing field for EU-based firms, the trade protectionism that it entails risks hurting developing countries.

The CBAM will initially apply to the highest-emitting industries most at risk of leakage – iron and steel, cement, fertilisers, aluminium, and electricity generation – and will likely be expanded to other sectors in the coming years. Currently, EU-made products in these industries are taxed under the domestic carbon price, but those from outside the bloc are not. If a country already has a domestic carbon price, the border tax will be lowered or waived; this is meant to encourage countries to tax carbon in their own markets. Those that cannot or will not institute a carbon tax will have to pay the full levy.

The EU tax will be phased in over the next four years. By 2023, importers will be required to report emissions embedded in the goods they import, though the tax on those emissions will not be imposed until 2026. The €1bn ($1.1bn) of annual revenue expected from the CBAM, as well as the €9bn in annual revenue expected from the EU Emissions Trading System from 2023-2030 and taxes on multinational corporations, will support the Union's €750bn Covid-19 pandemic recovery fund. These new sources of revenue will embed EU priorities – including the green transition – in the bloc's budget for the first time.

Though not yet approved, the proposed tax is already influencing the decisions of policymakers and companies in the EU's trading partners. For example, Turkey and Indonesia plan to introduce carbon taxes to mitigate the CBAM's effects on their economies. Turkey is highly exposed, because the EU accounts for 41% of its exports. Indonesia exports billions of euros' worth of palm oil and chemicals to the EU – goods that

could fall under a broader border tax. Adopting a domestic carbon price will allow them to avoid some or all of the CBAM and keep the tax revenues instead of transferring them to the EU.

Meanwhile, some EU-based companies in industries such as computer hardware are looking to reshore manufacturing operations ahead of the CBAM's introduction. Their main motive does not reflect the cost of the tax so much as the likely complexity, bureaucracy, and unpredictability of the system. It is easier and cheaper for companies to relocate production to the EU and avoid the administrative hurdles that the CBAM could create.

Such shifts will be a win for the EU's economy and the environment. And Russia's invasion of Ukraine could accelerate the EU's efforts to achieve greater economic self-sufficiency, not least by reducing its dependence on energy-intensive imports of Russian iron and steel.

But developing economies, which often depend on manufactured products, will likely experience an outflow of activity as firms relocate to the EU. Rather than addressing only carbon leakage and leaving developing countries to adapt as best they can, the EU should allocate part of the revenue from the proposed CBAM to help foster a just green transition for poorer countries.

It is not easy or cheap to decarbonise energy-intensive goods like cement and steel. But the EU could prevent negative knock-on effects for developing economies – not only by waiting for lower-income countries to introduce their own carbon taxes (which will be a challenge given their limited administrative capability in the field), but also by supporting those that need the most help to reduce their emissions.

Such support could be provided by dedicating resources and technology to improve the efficiency of industrial processes, financing renewable energy projects, and exempting the poorest countries from the CBAM where necessary. The EU should also dedicate part of the CBAM revenue to help developing countries

adopt cleaner technologies – to produce greener cement in Vietnam or chemicals in Indonesia, for example – and thus reduce emissions in the long run.
Europe sees itself as a global leader in the race to net-zero emissions. By helping to finance the developing world's green transition, the EU could mitigate the protectionist threat in its own climate agenda. – Project Syndicate

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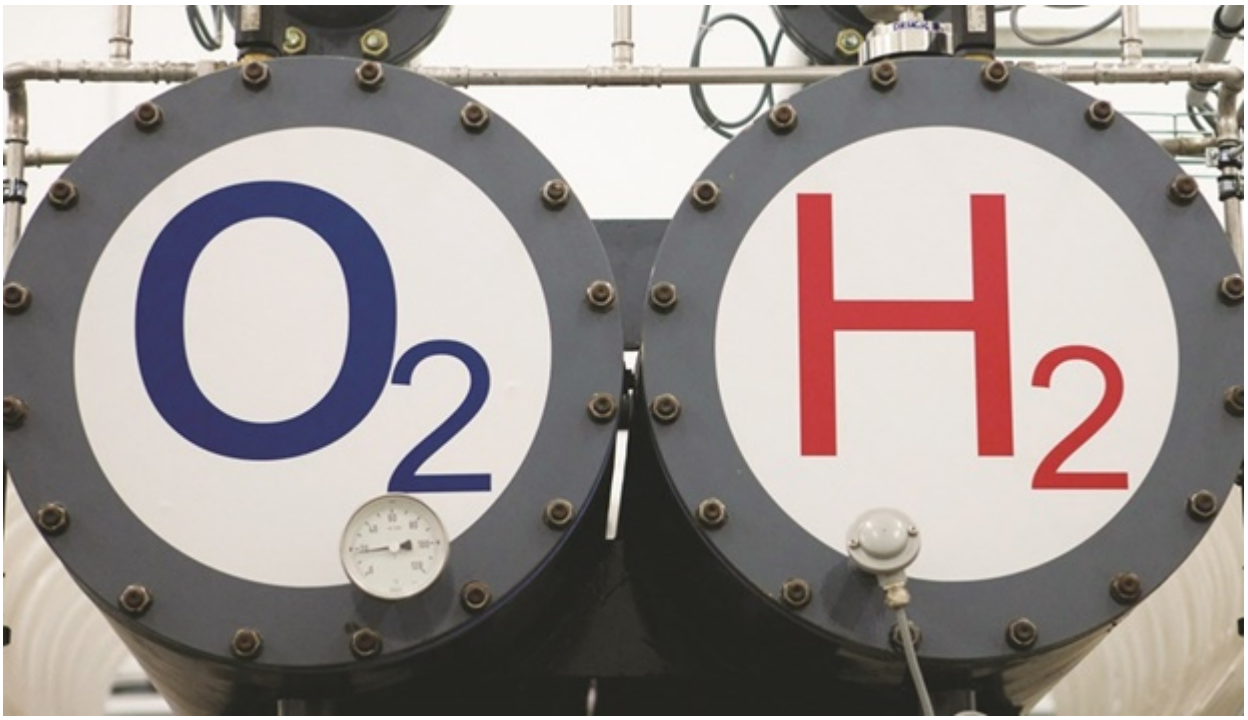
The coming green hydrogen revolution



By Jean Baderschneider/ Washington, DC

Human-induced climate change is causing dangerous and widespread environmental disruption and affecting the lives of billions of people around the world. According to the Intergovernmental Panel on Climate Change, the world faces unavoidable climate hazards over the next two decades. But, with average annual global greenhouse-gas emissions reaching their highest levels in human history between 2010 and 2019, we are simply not doing enough to limit global warming to 1.5C.

The IPCC report released in April recommended that the world rapidly reduce fossil-fuel supply and demand between now and 2050: by 95% in the case of coal, 60% for oil, and 45% for natural gas. But how can we possibly achieve such ambitious targets?

The answer is by switching to green hydrogen, which can be produced from all forms of renewable energy, including solar, wind, hydro, and geothermal. Green hydrogen is a zero-emissions fuel; when produced through electrolysis, the only "emission" is water. It is a practical and implementable solution that, by democratising energy, decarbonising heavy industry, and creating jobs globally, would help revolutionise the way we power our planet.

A rapid acceleration of the green-energy transition can also fundamentally alter the geopolitical landscape, since countries will no longer be powerful simply because of the fossil fuels they produce. In 2021, Russia provided 34% of Germany's crude oil and 53% of the hard coal used by German power generators and steelmakers. Russian-piped natural gas was Germany's largest source of gas imports in December 2021, accounting for 32% of supply. Since Russian President Vladimir Putin launched his horrific, unjust war in Ukraine in February, fossil-fuel exports to Europe have been earning Russia roughly $1bn a day.

But since the start of the invasion in February, European Union countries in particular have moved quickly to reduce their energy dependence on Russia, recently agreeing to ban all seaborne imports of Russian oil. These new sanctions

against Putin’s war machine could cut the amount of oil the EU buys from Russia by 90% this year. The United States has declared a complete ban on Russian oil, gas, and coal imports, while the United Kingdom is phasing out imports of Russian oil by the end of 2022.

These policies have sent fuel prices soaring. But sharply higher prices have also highlighted the opportunity to drive down energy costs by investing in renewables and the production of green hydrogen.

New research suggests that green hydrogen will be competitive with fossil fuels over the next decade. The cost of green hydrogen is expected to decline significantly by 2025 and to fall to $1 per kilogram by 2030 in favourable locations such as Australia. For comparison, grey hydrogen, which is made using polluting liquefied natural gas, currently costs around $2 per kilogram.

Some advocate using LNG to “solve” the current energy-security crisis, but “natural gas” contains methane, and the IPCC says that we must reduce use of natural gas by almost 45% by 2050; adding more to the energy mix now would be a catastrophic mistake.

So, there is now a global race for green energy, and specifically for green hydrogen. Dozens of countries that have abundant renewable-energy sources can develop energy independence by producing green hydrogen at scale. And energy importers will not have to rely only on the few countries (such as Russia) that have a natural endowment of fossil fuels.

In a recent report, the International Renewable Energy Agency said that (green) hydrogen can bolster energy security in three main ways: by reducing import dependence, mitigating price volatility, and boosting energy systems’ flexibility and resilience through diversification. As technologies improve, the cost of green hydrogen will fall. We must do everything we can to accelerate this process.

Companies like Fortescue, where I am a board director, are investing significantly in green hydrogen and will help to

replace Russian fossil fuels with green energy. Fortescue recently announced an agreement with Germany's largest energy distributor, E.ON, to supply Europe with 5mn tonnes of green hydrogen a year by 2030 – the equivalent of one-third of the calorific value of the energy that Germany currently imports from Russia.

But while rapid changes in the energy and geopolitical landscape present a clear opportunity to address the energy and climate crises simultaneously by investing in green energy, there is a clear perception of unfairness when developed countries claim that relatively low-emitting developing economies need to shut down fossil-fuel use. Why should they risk slowing their development to address a problem they played no part in causing?

It's a valid question. Policymakers will need to account for developing countries' interests during the green transition and enhance funding and incentives for them to move to clean energy as the basis of industrialisation.

The world is clearly at a fork in the road. We can remain locked into a costly, polluting future that is hideously inefficient and empowers only a handful of fossil-fuel-rich countries. Alternatively, we can choose a green revolution of low-cost energy for all that keeps our future secure from pollution, global warming, and dictators. Given that green energy has the power to democratise global supply as more countries achieve energy independence, the choice is not difficult. – Project Syndicate

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Saudi Aramco says global energy transition goals are ‘unrealistic’

AFP / Riyadh

Oil giant Saudi Aramco’s chief on Tuesday blasted “unrealistic” energy transition plans, calling for a “new global energy consensus”, including ramped-up investments in fossil fuels to address painful shortages.

Speaking at a conference in Switzerland, Amin Nasser, head of the world’s biggest crude producer, lamented a “deep misunderstanding” of what caused the current energy crunch and said a “fear factor” was holding back “critical” long-term oil and gas projects.

“When you shame oil and gas investors, dismantle oil- and coal-fired power plants, fail to diversify energy supplies (especially gas), oppose LNG receiving terminals, and reject nuclear power, your transition plan had better be right,” he said.

“Instead, as this crisis has shown, the plan was just a chain

of sandcastles that waves of reality have washed away.
“And billions around the world now face the energy access and cost of living consequences that are likely to be severe and prolonged.”
The primarily state-owned Saudi Aramco last month unveiled record profits of $48.4bn in the second quarter of 2022, after Russia’s invasion of Ukraine and a post-pandemic surge in demand sent crude prices soaring.
Yet even as it benefits from the current energy crisis, Riyadh has long complained that focusing on climate change at the expense of energy security would further fuel inflation and other economic woes.
With consumers and businesses in Europe facing soaring bills as winter approaches, the causes of the crisis run deeper than the Ukraine war, Nasser said Tuesday, asserting that the warning signs were “flashing red for almost a decade”. They include declining oil and gas investments dating back to 2014 and flawed models for how quickly the world could transition to renewable sources, he said.
The “energy transition plan has been undermined by unrealistic scenarios and flawed assumptions because they have been mistakenly perceived as facts”, Nasser said.
His proposed “new global energy consensus” would involve recognising long-term needs for oil and gas, enhancing energy efficiency and embracing “new, lower-carbon energy” to complement conventional sources. Nasser nonetheless said there should be no change in global climate goals.
Riyadh has come under intense outside pressure in recent months to ramp up oil production, including during a visit by US President Joe Biden in July.
So far it has largely rebuffed those appeals, co-ordinating with the Opec+ alliance it jointly leads with Russia.
Earlier this month the bloc agreed to cut production for the first time in more than a year as it seeks to lift prices that have tumbled due to recession fears.
Long-term, Saudi Arabia plans to increase daily oil production capacity by more than 1mn barrels to exceed 13mn by 2027.

Crown Prince Mohamed bin Salman has also tried to make environmentally friendly policies a centrepiece of his reform agenda.
Last year, Saudi Arabia pledged ahead of the COP26 climate change summit to achieve net zero carbon emissions by 2060.
Saudi Aramco, for its part, has pledged to achieve "operational net-zero" carbon emissions by 2050. That applies to emissions that are produced directly by Aramco's industrial sites, but not the CO2 produced when clients burn Saudi oil in their cars, power plants and furnaces.

Israel's Karish Offshore Gas Field: Facts and Figures

The country and its energy partners have found a more efficient way to exploit smaller offshore reserves, though Western officials should temper any expectations that such developments will help ease the global energy crisis.

Amid a verbal row between Israel and Lebanon, developing the Karish natural gas field represents a way forward for exploiting smaller offshore hydrocarbon discoveries in Israel’s exclusive economic zone (EEZ). The field’s 1.75 trillion cubic feet (tcf) of reserves are much less than the estimated volumes in Israel’s two producing fields, Leviathan (35 tcf) and Tamar (7.1 tcf). But even before the recent sharp increase in gas prices, Energean, the Greek-British license

holder for Karish, decided the best way to exploit the field was by linking its development to two other small fields in the area, Karish North and Tanin.

Key to this task is the *Energean Power*, a floating production storage and offloading vessel (FPSO) that took up position fifty miles off Israel's northern coast last week and is due to start production in the third quarter of this year. The vessel will use multiple anchors in water 5,500 feet deep to maintain its position. Seabed equipment linking to the gas field below will then be connected by hoses to the FPSO. Once gas is flowing to the vessel, it will be processed onboard, cleaning it of oil products and water before it descends by other hoses to the seafloor and connects with a pipe that takes it ashore. Using a pressure control device close to the beach, it will then enter Israel's gas grid to supply power stations. Meanwhile, the separated oil products and waste will be collected by a small tanker mooring alongside the FPSO every two weeks or so, and the separated water will be cleaned and pumped back into the sea.

In Israeli domestic political terms, the crucial advantage of the *Energean Power* is that it is not visible to local residents (read: voters). In contrast, the production platform for the Leviathan field is visible just a few miles offshore from the hilltop resort of Zichron Yaakov south of Haifa, leading to protests—though the tall chimneys of the nearby Hadera power station have escaped such complaints. As for Tamar, its platform is located out of sight thirteen miles off the coast of Ashkelon far to the south, but its gas still needs additional processing at the Ashdod onshore terminal. In terms of potential security threats, the existing facilities for Leviathan and especially Tamar are closer to the Hamas-controlled Gaza Strip.

Another plus for the *Energean Power* is that it can be connected with relative ease to additional fields in the area for which Energean holds the license, without the vessel

needing to change location. The Karish North field is due to come online in the second half of 2023. Energean also judges that reserves in the "Olympus" area of Block 12 slightly further south will be commercially exploitable, though its latest drilling suggested only 0.28 tcf of reserves rather than the hoped-for 0.7 tcf. By carefully phasing such exploitation, the company hopes to maintain a steady production stream and offset the decline that occurs over the usual fifteen-year lifespan of an individual field.

In total, the *Energean Power* can handle 8 billion cubic meters (bcm) of gas per year. Setting aside the sometimes-confusing mix of metric and U.S. units of measurement represented by such figures, this amount will help meet Israel's expanding demand for energy. For example, desalination alone consumes 10 percent of the country's electricity. Eventually, surplus gas will be available for export, with Egypt as the first customer—though the purchase terms for Karish and Tanin do not permit Energean to export from those two fields.

The Lebanese Angle

Energean's planning seems unaffected by Lebanon's expanding claims for its EEZ, which encroaches on the Karish field. When tugboats moved the *Energean Power* into position last week, Hezbollah issued threats, and U.S. special envoy Amos Hochstein quickly visited Beirut to calm tempers.

From Israel's point of view, Karish is firmly in its EEZ. Moreover, dealing with threats against its gas installations is nothing new—the Leviathan platform is in range of both missiles from Lebanon and rockets from Gaza. Israel's main answer to this problem is deterrence, the implication being that any action or immediate threat against such installations would be dealt with either preemptively or through massive retaliation.

Israel and European Energy Demand

The volumes achievable from Karish and similar gas fields are significant for Israel but not in global terms. For comparison, Leviathan produces about 12 bcm per year and Tamar less than 10 bcm, while Europe's annual demand for gas was around 400 bcm even before the Ukraine crisis, with Russia supplying more than 40 percent of that amount. Clearly, increased Israeli exports would have minimal impact on this imbalance.

Nevertheless, planners are considering ways to increase Israeli production. Leviathan volumes can grow, albeit with a commensurate increase in the size of its controversial offshore platform. Israel may also be able to export gas more widely than its current arrangements: by pipeline to Jordan (where 80 percent of electricity is produced by Israeli gas) and Egypt (whose apparently insatiable domestic energy market is not sufficiently fed by the country's 75 tcf of gas reserves and estimated annual production of 65 bcm).

Currently, any exports further afield would need to be funneled via one of Egypt's liquefied natural gas plants on the Nile Delta coast. Israel may eventually be able to use a floating LNG platform off its own coast to load specially built tankers with Leviathan gas, though rough seas in winter could make this approach infeasible. Another consideration is a potential pipeline to Cyprus, where an LNG vessel moored in port could supply the island's modest domestic market while still leaving most of the Israeli product available for export further abroad. A proposal for a seabed line to take Israeli gas to Greece is effectively dead after the U.S. government signaled that the plan was logistically and commercially impractical.

Meanwhile, Israel, Egypt, and the European Union are expected to sign a memorandum of understanding on increasing gas

exports, though it is difficult to see what immediate practical effect this will have. Israel's Ministry of Energy will also open another round of bidding for licenses to explore in its EEZ. The degree of interest shown in this round will indicate how international energy companies currently regard the attractiveness of Israeli prospects.

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