Clean energy progress hinges on policy, science and action

It is tough to be optimistic about the climate these days. While the costs of extreme weather events like the Los Angeles wildfires pile up, the US federal policy pendulum is swinging away from facts, reason, and basic human decency. Nonetheless, even as the US government moves in the wrong direction, trends in science, economics, and increasingly local politics indicate that the pendulum will swing back in due course.

After all, no-one can argue with the physics of today's clean energy technologies. Heat pumps, induction stoves, and electric vehicles (EVs) – to name just three – are fundamentally better technologies than what came before. The best gas furnaces might reach 95% efficiency, meaning they are converting 95% of the energy they use into heat; but most heat pumps easily top 200%, with some reaching 400% or more. Similar comparisons can be made between induction and gas stoves, and between EVs and gasoline- or diesel-powered

vehicles. By and large, we know what technologies we should be using to eliminate greenhouse-gas emissions; and in cases where we don’t, we know what kinds of things to try.

This knowledge extends well beyond EVs and heat pumps to entire industrial sectors like cement or iron and steel. Here, outgoing US President Joe Biden’s administration has made an important contribution with the Department of Energy’s Liftoff Reports, which chart pathways to commercialisation for a broad selection of low-carbon technologies.

Consider cement, which accounts for some 8% of annual global greenhouse-gas emissions. Ordinary Portland cement, patented 200 years ago, has dominated the sector for decades. While measures like clinker substitution and efficiency improvements can abate up to 40% of emissions, getting to zero will require additional steps. These generally fall into two categories: cutting emissions from producing Portland cement or switching away from it altogether. Promising US start-ups like Brimstone and Sublime Systems are racing to demonstrate that either path is commercially viable.

One key ingredient is public subsidies to help firms climb the learning curve and slide down the cost curve toward faster commercialisation. Both Brimstone and Sublime Systems received early research and development funding from the US Advanced Research Projects Agency-Energy (ARPA-E) and have now advanced to the deployment stage, receiving up to $190mn and $90mn, respectively, to build their first commercial plants. All told, the Bipartisan Infrastructure Law and the Inflation Reduction Act allocated around $100bn for such purposes, with public funding contingent on matching private investments.

Moreover, these sums are dwarfed by the Department of Energy’s loan programme. With just $17bn in taxpayer funds, the IRA authorises the department’s Loan Programs Office to lend $350bn for investments in clean energy and domestic EV manufacturing. And those public funds then catalyse multiples more in private investments. While some Republicans and members of Donald Trump’s incoming administration want to cut this programme, doing so would only hurt US competitiveness.

Can we restore sanity to our national policies? It might be trite to say that change begins at home, but what is trite is often true. A good place to look is New York. While the city has many problems, its climate policies are not among them. Around 70% of New York's direct emissions come from heating and cooling buildings, while the other 30% comes from cars and trucks. Fortunately, Local Law 97 is already addressing the former. The law is one of the most ambitious decarbonisation measures for buildings anywhere, requiring most to reduce their emissions by 40% this decade, and by 100% by 2050. And while New York can do only so much about vehicle emissions, its long-delayed congestion pricing programme is finally being implemented. That is a good start.

Given that New York used to be the world's most congested city, the quality-of-life improvement from less traffic can already be felt. The same goes for another measure that took an absurdly long time to address: the lack of trash bins. Over the past year, the city has finally issued official trash, recycling, and compost bins, with enforcement for residential buildings beginning this month. Cleaning up our own act – including with mandatory composting and other policies – will not save the planet. But effective government just might.

Physics alone will not push the pendulum all the way back to where it was before. That will require policies based on sound economics. As long as Trump does not break the fulcrum and bring the entire pendulum crashing down, policies pioneered by his predecessor and by local communities will continue to be a force applying pressure in the right direction. – Project Syndicate

Germany’s costly LNG terminals aren’t paying off as imports dip

Germany spent big on liquefied natural gas (LNG) terminals to ensure energy security, but the high cost of using them means they’re bringing in a tiny fraction of its gas needs.

Only about 8% of Germany’s total gas imports last year came via its shipping terminals in Wilhelmshaven, Brunsbüttel, Lubmin and Mukran, according to energy regulator Bundesnetzagentur.

“German terminals are more expensive to deliver to than the rest of northwest Europe,” said Qasim Afghan, a commercial analyst at Spark Commodities Pte Ltd. On average, variable regasification costs in Germany for cargo delivery in February are 86% higher than other such facilities in the region, he said.

That’s because it’s more expensive to operate floating import terminals, especially in the winter. Also, fuel gas losses, associated with power consumption needed for the process of turning LNG back to gas, are higher in Germany than elsewhere, Afghan said.

As a result, Germany has the most regasification prompt slots available for purchase in Europe, “highlighting unused capacity that is likely not economically viable.”

When the nation accelerated the construction of these floating facilities in 2022, to help wean off Russian gas, the ambition was to be able to keep energy costs in check. However, the expensive terminals are now adding to the already high gas prices and compounding the pain for Germany’s energy-intensive economy. This has led some environmental groups to demand that

the expansion of such infrastructure be halted.

Ship-tracking data compiled by Bloomberg show that Europe's biggest economy imported 4.8mn tons of the super-chilled fossil fuel last year. That's a marginal decline year-on-year and far less than what neighbouring nations are importing.

The Economy Ministry says it primarily views the terminals as a way to ensure a sufficient safety buffer.

"Of course, this can mean that there may be lower capacity utilization if demand is not so high, but this cannot be the benchmark for a federal government that has to guarantee security of supply," a ministry spokesperson said.

The total cost estimate for the nation's state-run LNG terminals — including those in the pipeline — is now likely to be around €5bn. That's half of what it was initially pegged at, she added.

State operator Deutsche Energy Terminal said imports via its units in Wilhelmshaven and Brunsbüttel remained steady at 59 terawatt-hours. It also successfully marketed all three slots in December for the two units and aims for a new capacity auction at the end of the month, a spokesperson said.

Deutsche Regas, the operator of the Mukran terminal on the island of Rügen — also Germany's only privately operated one — didn't respond to a request for comment.

More facilities are set to open later this year, including Stade near Hamburg and Wilhelmshaven II.

Planning more units despite the low utilization is "absurd," Sascha Müller-Kraenner, managing director of German Environment Action, said in a statement, calling for an end to the infrastructure expansion.

Supertanker Rates on China Routes Double Since Sanctions

The cost to hire an oil supertanker on key routes to China has doubled since the US imposed sanctions on Russia, showing the extent to which the move has upended the global shipping market.

The sanctions have jolted a freight market that was, until recently, dealing with softer demand due to supply curbs, a tepid Chinese economy, and an easing of Middle East tensions. The number of confirmed journeys hasn’t changed much, but the pool of available ships has shrunken rapidly, and there’s intense competition on certain routes.

Daily rates for very-large crude carriers on the Middle East-

to-China route surged 112% to $57,589 in the week through Friday, according to Baltic Exchange data, after Washington sanctioned nearly 160 tankers hauling Russian crude on Jan. 10. Those on the US Gulf-to-China journey jumped 102%, while West Africa-to-China saw an increase of 90%.

Major Chinese refiners have been been rushing to buy crude from the Middle East, Africa and the Americas in recent days to make up for the loss of Russian oil. A VLCC from the US Gulf to China was hired for $9.5 million last week, compared to a low-$7 million range over the last couple of months, shipping fixtures show. Indian Oil Corp. is also snapping up up Middle Eastern barrels, adding to the pressure.

There’s concern that tanker rates could remain elevated if President-elect Donald Trump, set to be sworn in later on Monday, takes a tougher line against Tehran.

“Rates could hold at these levels if Trump dials up the pressure on Iranian oil shipments, which is more likely than not,” said Junjie Ting, a Singapore-based shipping analyst at Oil Brokerage Ltd.

The rising demand for VLCCs, which can carry around 2 million barrels of oil, is also feeding through to costs for smaller vessels, which tend to be viewed as less cost-efficient on longer routes. Rates for Suezmaxes, that hold about 1 million barrels, have climbed on increased demand and tight supply, shipbroker SSY said in a report.

Germany’s costly LNG

terminals aren’t paying off as imports dip

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Climate change forged a new reality in 2024: 'This is life now'

Intolerable heat. Unsurvivable storms. Inescapable floods.

In 2024, billions of people across the world faced climatic conditions that broke record after record: logging ever more highs for heat, floods, storms, fire and drought.

As the year drew to a close, the conclusion was both blatant and bleak: 2024 was the hottest year since records began, according to European climate scientists.

But it may not hold this dubious honor for long.

“This is life now and it’s not going to get easier. It’s only going to get harder. That’s what climate change means,” said Andrew Pershing, chief programs officer at Climate Central, a US-based non-profit climate advocacy group.

“Because we continue to pollute the atmosphere, we’re going to get, year after year, warmer and warmer oceans, warmer and warmer lands, bigger and badder storms.”

Others use still bolder language.

“We are on the brink of an irreversible climate disaster,” said the 2024 State of the Climate report.

Here’s how that looked this year, what 2025 holds, and why there are still reasons to be hopeful.

SOS

This was the first year when the planet was more than 1.5 degrees Celsius hotter than it was in the 1850-1900 pre-industrial period, a time when humans did not burn fossil fuels on a mass scale, according to the European Union’s Copernicus Climate Change Service.

The sheer number of days of extreme heat endured by billions of people – from the desert town of Phoenix, Arizona to the desert town of Phalodi in India’s Rajasthan – was startling.

Sunday, July 21, was the hottest day ever.

Until Monday, July 22.

The day after dipped a smidgen cooler.

These consecutive records came during Earth's hottest season on record – June to August – according to Climate Central.

Those three months exposed billions of people to extreme heat, heavy rain, deadly floods, storms and wildfires.

Friederike Otto of World Weather Attribution, a global team that examines the role of climate change in extreme weather, said heatwaves were a "game changer."

The world has not caught up: many deaths go unrecorded while some African countries lack an official definition for a heatwave, meaning heat action plans don't kick in, she said.

"There is a huge amount of awareness that needs to be had to even adapt to today's heat extremes but, of course, we will see worse," Otto told the Thomson Reuters Foundation.

Between June 16-24, more than 60 percent of the world's population suffered from climate change-driven extreme heat.

This included 619 million in India, where more than 40,000 people suffered heatstroke and 100+ died over the summer.

Birds fell from the sky as temperatures neared 50 C (122 F).

Millions were affected: from China to Nigeria, Bangladesh to Brazil, Ethiopia to Egypt, Americans and Europeans, too.

Climate Central said one in four people had no break from exceptional heat from June to August, the highs made at least three times more likely by climate change.

During those months, 180 cities in the Northern Hemisphere had at least one dangerous extreme heatwave – a phenomenon made 21

times more likely by human action, Climate Central said.

TOO HOT TO WORK

“The number of days where you are starting to push the physiological limits of human survival (are rising),” said Pershing, citing Pakistan and the Arabian Gulf as two areas that neared breaking point this year.

Hundreds died during the Hajj pilgrimage to Makkah as Saudi Arabia topped 50 C (122 F).

In the US Midwest and Northeast, Americans broiled under a heat dome when high pressure trapped hot air overhead.

NASA’s Earth Observatory said extreme heat was often exacerbated by hot nights, a dearth of green space or air con, or a surfeit of concrete, which absorbs heat.

Heat and drought fueled wildfires this year, with blazes in the Mediterranean, United States and Latin America. Fires burned from the Siberian Arctic to Brazil’s Pantanal wetlands.

“(The Pantanal) is a wet area that is not supposed to burn for months on end so that is probably something I would look out for next year where we see wildfires in ecosystems that are not traditionally burning ecosystems,” said Otto.

THE MOST VULNERABLE

The “new normal” hits the vulnerable hardest.

“The people who are succumbing to heat-related deaths are not the millionaires and billionaires,” said Pershing.

“If you are a reasonably well-to-do person you can afford air conditioning, you have a vehicle that can get you where you need to go, you have ways to keep yourself cool. If you don’t have access to these things or you lose them because of a power outage or another storm, that creates these additional

vulnerabilities.”

In Africa, nearly 93 percent of the workforce faces extreme heat.

On the Arabian Peninsula, it is more than 83 percent of workers.

European and Central Asian workers could be next in line.

For Otto, the answer to this fast-spreading risk lies in empathy, putting the poor and vulnerable – “the vast majority of the global population” – at the center of climate action.

“In Bangladesh, when you put the survival of the poorest in the center of the action, you actually have a society that is really well-equipped to deal with tropical cyclones,” she said.

“People know what to do and there are drills and practices.”

Silver linings, though, are rare.

“Empathy is in short supply,” said Otto.

BOILING SEAS

Ocean temperatures also hit alarming levels in 2024, wreaking havoc on land and sea.

Hurricane Milton came barely two weeks after Hurricane Helene, with abnormally warm waters in the Gulf of Mexico turbo-charging the twin storms that lashed the US Southeast.

“In that some places in the Gulf of Mexico … temperatures were 400 times more likely because of climate change,” Pershing said.

Climate Central found a similar link between October’s floods in Spain and unusually warm waters in the Tropical Atlantic.

Human-driven climate change made these elevated sea surface temperatures up to 300 times more likely, Climate Central said.

“WE NEED DRILLS”

Otto said this year’s extremes, notably Europe’s floods, illustrated a “failure of imagination” and a refusal to adapt.

“We don’t just need the weather forecast or warnings. We need drills. We have to practice survival wherever heavy floods can happen and they can happen everywhere,” she said.

Infrastructure also failed.

“The way that we have canalized rivers and sealed all the surfaces … will mean disastrous damages every time there is a flood … There is always this short-termism that it’s expensive to fix it now but of course it will save lots of money and livelihoods later,” she said.

For Pershing, adaptation is “an exercise in imagination because we haven’t seen these kinds of events before … That is the challenge of climate change: we’re going to be confronted year after year with conditions we’ve never experienced.”

SO WHAT NEXT?

Nobody expects a quick end to extreme weather but Otto is hopeful that humans may change their polluting ways.

“That is a reason for optimism …clinging to fossil fuels (is) increasing inequality and destroying livelihoods but it increasingly makes less sense …for national economies.”

In another upbeat note, Otto said better preparations in Europe meant fewer deaths in this year’s floods than previously.

But ocean temperatures are a key concern for 2025.

“The amount of heat stored in the ocean … really has my attention because we are not quite sure if there is something different going on in the climate system,” said Pershing.

Another risk – complacency.

“People do have a way of getting used to conditions and you can kinda get numb to it,” Pershing said.

And complacency can breed paralysis.

“This was the hottest year, last year was the hottest year – probably next year will be the hottest year again,” said Otto.

Brazil’s Climate Push Must Start at Home

As the current G20 president and host of next year’s United Nations Climate Change Conference, Brazil has sought to establish itself as a global climate leader. But to have the biggest impact, Luiz Inácio Lula da Silva’s government must

lead by example, which means committing to ambitious emissions targets and energy policies.

AMSTERDAM – Ever since Brazilian President Luiz Inácio Lula da Silva returned to office in 2023 and told the world that Brazil is “back on the world stage,” the government has endeavored to establish itself as a global climate leader. As the current G20 president, Brazil is pushing for a sustainable bioeconomy and scaled-up climate finance – goals that it will surely continue to pursue as the host of next year’s United Nations Climate Change Conference (COP30). Moreover, the country recently formed a troika with the hosts of COP28 (the United Arab Emirates) and COP29 (Azerbaijan) to preserve the Paris climate agreement’s goal of limiting global warming to 1.5º Celsius.

The Brazilian government has not been afraid to challenge rich countries and individuals as part of its efforts to halt the rise in global temperatures. But to have the biggest impact, Brazil must lead by example. As the saying goes, charity begins at home. The timing could not be better: countries must submit more ambitious 2035 emissions-reduction targets, known as nationally determined contributions (NDCs), by February 2025.

The need to cut greenhouse-gas (GHG) emissions has never been more urgent for Brazil, which was recently hit by record flooding and has been fighting devastating forest fires for weeks. To be sure, investing in adaptation and resilience requires increased financial flows from the wealthy countries responsible for the bulk of historic pollution to vulnerable countries suffering the worst effects of global warming. But reducing fossil-fuel emissions and extraction, which has harmed traditional and indigenous communities’ health, destroyed their land, and diminished their capacity to provide for their families, is also a matter of economic and social development. Brazil must devise an energy policy that works for these communities.

The share of electricity generated from wind and solar power is expanding rapidly, and these renewable-energy sources are becoming cheaper by the day. Brazil has abundant sun and wind and the tools to operate these technologies successfully. But, equally important, local communities are already expanding clean-energy infrastructure and have created innovative and effective solutions to participate in the decarbonization decision-making process.

Various community-led and decentralized clean-energy projects, often developed in partnership with NGOs, are being launched across Brazil, from isolated villages in the Amazon to densely populated *favelas* (informal settlements) in Rio de Janeiro. At the same time, the country's indigenous peoples have developed robust consultation protocols for the design and implementation of public and private renewable-energy projects on their land.

Last year, COP28 closed with an agreement to "transition away from fossil fuels" – the first time such a call has been made at the climate summit – and to triple renewable energy and double energy efficiency by 2030. To honor that agreement, Lula's government must challenge the false notion that fossil fuels are necessary for development and can complement efforts to scale up and provide equitable access to community-centered renewable energy.

To show the world that Brazil can lead the global renewable-energy transition by example, its updated NDC must commit to bold action, such as stopping new fossil-fuel projects and shutting down existing ones, and deploying the resources required to meet the global goal of tripling renewable-energy generation. Moreover, to advance the goal of energy justice, the government should implement policies aimed at ensuring that solar and wind power reaches vulnerable communities.

If the Brazilian government creates a national platform that provides operational support to these clean-energy solutions,

the country can show the world that it is possible to decarbonize while putting people first. In fact, this is not only possible but essential.

A few years ago, the world came together to combat the COVID-19 pandemic. Governments quickly poured resources into vaccine development and production, successfully creating the tools to solve a novel problem in record time. In this case, the world has everything it needs to accelerate the energy transition and limit global warming; all that it is missing is the political will to commit to – and follow through on – ambitious targets and policies. Brazil can and should be one of the first countries to demonstrate it.

الخبير في مجال الطاقة رودري بارودي: دول شرق البحر المتوسط يجب أن تتعاون بمجال الطاقة

أشار أحد اهم الخبراء في مجال الطاقة رودي بارودي، في مؤتمر انعقد في أثينا، إلى أن "دول شرق البحر الأبيض المتوسط يجب أن تتعاون مع بعضها لزيادة إنتاج وتصدير الطاقة والتخفيف من التوترات الإقليمية".

وقال بارودي امام المشاركين في المؤتمر: "يجب ان نضع في الاعتبار الاحتمالات الايجابية إذا أصبحت اليونان وتركيا وقبرص شركاء بحكم الواقع أو بحكم القانون في خط أنابيب ينقل غاز شرق المتوسط إلى المستهلكين في بلغاريا ورومانيا وإيطاليا، وان نتخيل مستقبلاً تعتمد فيه شركات الغاز الإسرائيلية واللبنانية ولكن بشكل مستقل على نفس مصنع الغاز الطبيعي المسال في قبرص".

وأضاف بارودي "لنتصور اهمية وايجابية سيناريوهات التعاون الثنائي بين اليونان وتركيا من جهة وسوريا وتركيا من جهة ثانية إضافة إلى الترابط الإقليمي الذي سيوفر طاقة احتياطية لدول ساحلية متعددة"، لافتا إلى أنه "بدلاً من قبول أفكار معينة على أنها مستحيلة بشكل دائم، يجب أن نفكر في المستقبل ونضع الأساس لاعمال ايجابية مشتركة على ان تكون نقطة البداية الجيدة مماثلة لاتفاقية الحدود البحرية بين لبنان وإسرائيل في عام 2022".

وشدد بارودي أمام حشد من المتخصصين في مجال الطاقة ومسؤولين حكوميين على أن "استخدام الحوار والدبلوماسية لتوسيع التعاون في مجال الطاقة لن يفيد فقط دول شرق البحر المتوسط ولكن أيضًا جميع دول الاتحاد الأوروبي والكثير من" الجوار "المحيط به وان هذا الاستحقاق المهم يستحق أكثر من اهتمام بروكسل، لا بل يستحق تخصيص موارد الدعم،وتعيين موفد مكلف بتسهيل الاتصالات والمفاوضات اللازمة".

وختم بارودي بالقول: "هذه هي الطريقة الفضلى التي نحتاجها للتفكير إذا أردنا الوصول إلى حيث يجب ان نكون بدلاً من السماح لأنفسنا بالإحباط بسبب وجود عقبات،فنحن نحتاج إلى التفتيش عن طرق جديدة وحديثة تلتف على الافكار والمواقف القديمة، وتعزيز سيادة القانون وخاصة قانون حقوق الإنسان كأساس للنظام الدولي، وتعزيز

السلام الدائم بين جميع الدول،عندها فقط يمكننا إعلان النصر على ما أسماه الشاعر الاسكتلندي روبرت بيرنز في القرن الثامن عشر: وحشية الإنسان للإنسان”.

Lessons from euro’s first 25 years

Jan 31, 2024MARCO BUTI and GIANCARLO CORSETTI
Prior to the introduction of the European single currency in January 1999, its architects foresaw a future of macroeconomic stability and accelerated growth. While the euro has delivered on some of these promises, it has failed to facilitate the continent’s economic and political integration.

FLORENCE – The 25th anniversary of the euro’s introduction, which has passed largely under the radar, offers an opportune moment to assess the current state of the greatest monetary experiment in modern history.

The euro’s launch in January 1999 polarized economists. In the

face of much skepticism – the late American economist Martin Feldstein even argued that the single currency could trigger a war in Europe – the euro's architects envisioned a future characterized by macroeconomic stability, anchored by an independent central bank and a fiscal framework geared toward stability. Structural reforms, which the European Union's member states were expected to implement, were meant to enhance the monetary union's capacity to adjust to shocks.

None of those scenarios materialized. Over the past quarter-century, the euro has shown extraordinary resilience, navigating through several critical challenges and defying early predictions of its collapse. But while the single currency has delivered on some of its promises – most notably, maintaining price stability for most of its existence – it has failed to boost Europe's potential growth or facilitate the continent's full economic and political integration.

This mixed record can be attributed largely to the fact that Europe's economic union was incomplete from the outset. Despite the significant progress that has been made since its inception, the eurozone's fiscal and economic frameworks remain woefully underdeveloped compared to its monetary infrastructure.

To understand the consequences of the eurozone's unfinished architecture, it is useful to divide the past 25 years into four distinct periods. The first phase, from 1999 to 2008, could be labeled the "2% decade": economic growth, inflation, and budget deficits (as a share of GDP) all hovered around this rate. This phase was characterized by the excessive optimism of the "Great Moderation."

But the internal imbalances that emerged during this period would haunt the eurozone for years to come. The convergence of interest rates, evidenced by minimal spreads, resulted in overly sanguine portrayals of member states' public finances. Simultaneously, loose fiscal and monetary conditions reduced

European governments' incentives to undertake structural reforms and bolster their banking systems.

Nominal convergence also masked more profound structural disparities, as capital flowed from the eurozone's richest members to their poorer counterparts, where it was frequently channeled into less productive sectors, such as real estate and non-tradable services, often through instruments like short-term bank loans. Consequently, while the eurozone's current accounts appeared balanced, significant imbalances emerged.

The fallout from the 2008 global financial crisis, particularly the discovery that Greece had lied about its budget deficits and debt, eroded trust among member states. The prevailing narrative shifted to one of moral hazard, emphasizing the need for each country to get its own house in order. By the time eurozone governments finally coordinated a response – establishing the European Stability Mechanism (ESM), launching the banking union project, introducing the European Central Bank's Outright Monetary Transactions program, and expanding the ECB's balance sheet – the euro appeared to be on the brink of collapse.

The key turning point was the pledge by then-ECB President Mario Draghi to do "whatever it takes" to preserve the euro in July 2012. But with monetary policy increasingly viewed as the "only game in town," the eurozone's economic and financial structures remained fragmented.

The COVID-19 crisis changed that. The exogenous nature of the pandemic shock, together with the lack of impending elections, enabled EU leaders – led by French President Emmanuel Macron, then-German Chancellor Angela Merkel, and European Commission President Ursula von der Leyen – to present a unified front, unencumbered by the pressure to avoid moral hazard. The EU suspended the Stability and Growth Pact, which had previously capped member states' budget deficits at 3% of GDP, and rolled

out the Support to mitigate Unemployment Risks in an Emergency and the NextGenerationEU recovery programs, financing both through common borrowing. Meanwhile, the ECB introduced its €1.85 trillion ($2 trillion) Pandemic Emergency Purchase Program.

Although this demonstration of collective leadership reassured markets, fueling an economic rebound, the optimism proved to be short-lived. A global inflationary surge, fueled by robust macroeconomic stimulus and pandemic-related supply-chain disruptions, was exacerbated by the energy-price shock that followed Russia's full-scale invasion of Ukraine. Although European policymakers worked together to reduce the EU's dependence on Russian gas, they failed to mount a collective response akin to the NextGenerationEU initiative. Confronted with rising deficits and debt, not to mention the most aggressive monetary-tightening cycle since the 1980s, EU countries have once again put eurozone reforms on hold.

Two important lessons follow from the euro's first 25 years. First, the monetary union's incomplete institutional framework has proven to be both costly and dangerous. Finalizing the banking union, especially the creation of a common resolution fund with the backstop of the ESM and deposit insurance, is essential to ensure stability and bolster the international role of the euro. Thus, Italy's recent failure to ratify the ESM treaty is a serious setback. Pushing forward the capital market union is essential if Europe is to meet the financial challenges posed by the digital and green transitions. To achieve all of this, EU leaders must strike a balance between risk sharing and risk reduction.

Second, completing the euro is crucial for safeguarding and developing the EU's greatest achievement: the single market. European countries' current pursuit of national industrial policies, funded through state aid, undermines the core values of the single-market project. To address this challenge, the EU must formulate a cohesive European industrial policy. This

should include an increase in cross-border investments, focusing on European public goods such as human-capital development, the availability of critical materials, and the green and digital transitions.

After the fall of the Berlin Wall, German Chancellor Helmut Kohl, French President François Mitterrand, and European Commission President Jacques Delors turned the dream of a single currency into a reality. During the COVID-19 crisis, Macron, Merkel, and von der Leyen managed to overcome seemingly insurmountable obstacles and achieve a historic breakthrough. Now, a quarter-century after its introduction, the euro requires visionary leaders to shepherd European sovereignty to its next phase.

This article draws on the CEPR Policy Insights February 1, 2024, paper "The First 25 Years of the Euro," written under the auspices of the European University Institute's Economic and Monetary Union Laboratory (EMU Lab).

Greenland's ice loss surges: Satellite data shows alarming retreat

Aggravating concerns about global warming and its consequences, a new, comprehensive analysis of satellite data has found Greenland has lost more ice than previously estimated and that the majority of glaciers on the landmass have retreated significantly. The Greenland Ice Sheet has shed about one-fifth more ice mass in the past four decades than previously estimated, researchers at Nasa’s Jet Propulsion Laboratory in Southern California reported in a new paper. Icebergs are falling into the ocean at an accelerating rate. Though this additional ice loss has had only an indirect impact on sea levels, it could hold implications for ocean circulation in the future.

Published in Nature on January 17, the analysis offers a comprehensive look at retreat around the edges of the entire ice sheet from 1985 to 2022, drawing from nearly a quarter million pieces of satellite data on glacier positions. Of the 207 glaciers in the study, 179 retreated significantly since 1985, 27 held steady, and one advanced slightly. Most of the ice loss came from below sea level, in fjords on Greenland’s periphery. Once occupied by ancient glacial ice, many of these

deep coastal valleys have filled with seawater – meaning the ice that broke off made little net contribution to sea level. But the loss likely accelerated the movement of ice flowing down from higher elevations, which in turn added to sea level rise.

“When the ice at the end of a glacier calves and retreats, it’s like pulling the plug out of the fjord, which lets ice drain into the ocean faster,” said Chad Greene, a glacier scientist at JPL and the study’s lead author. For decades researchers have studied the Greenland Ice Sheet’s direct contributions to global sea level rise through ice flow and melting. Scientists participating in the international Ice sheet Mass Balance Inter-comparison Exercise (IMBIE) estimated that the ice sheet had lost 5,390 billion tonnes between 1992 and 2020, adding about 13.5 millimetres to global mean sea level, according to the Intergovernmental Panel on Climate Change. But the IMBIE measurements do not account for ice lost due to the retreat of terminal glaciers along the edges of Greenland. (These glacier edges were already in the water, whether submerged or floating.) The new study quantifies this amount: For the 1985 to 2022 period in the new paper, the ice sheet was estimated to have lost about 1,140 billion tonnes – 21% more mass lost than in the IMBIE assessment.

Although it doesn’t add to sea levels, the additional ice represents a significant influx of fresh water to the ocean. Recent studies have suggested that changes in the salinity of the North Atlantic Ocean from melting icebergs could weaken the Atlantic Meridional Overturning Circulation, part of the global “conveyor belt” of currents that transport heat and salt around the ocean. This could influence weather patterns worldwide, as well as affect ecosystems, the authors said.

Icebergs have tumbled from Greenland’s glaciers for thousands of years as part of a natural cycle that typically balanced glacier growth in the winter with melting and retreat in the summer. The new study finds that ice retreat has far outpaced growth throughout the 21st century. The researchers also found that Greenland’s ice extent remained relatively steady from

1985 to 2000, then started a marked recession that continues to this day.

The data showed a glacier in northeast Greenland called Zachariae Isstrom lost the most ice, dropping 176 billion tonnes of mass due to retreat. It was followed by Jakobshavn Isbrae on the western coast, which lost an estimated 97 billion tonnes and Humboldt Gletscher in the northwest, which lost 96 billion tonnes. Only one glacier, Qajuuttap Sermia in southern Greenland, experienced any growth over the study period, but its gains were too small to offset the losses from other glaciers.

The researchers also found that glaciers with the largest seasonal fluctuations in the position of their ice front experienced the greatest overall retreat. The correlation suggests the glaciers that are most sensitive to warming each summer will be most impacted by climate change in the coming decades.

Developing Countries Need Debt Relief to Act on Climate Change

While developed economies have pledged to increase climate financing sharply by 2030, developing-economy policymakers are struggling to cover the costs of action. With medium-term strategies being used to address a short-term threat, progress on the green transition will be undermined, with potentially catastrophic implications.

WASHINGTON, DC/PARIS – If developing economies found it hard to manage their debts in 2023, they are likely to face even more formidable challenges this year. Though most possess relatively small debt stocks and are not considered insolvent, many are in dire need of liquidity. As long as this remains true, they will struggle not only to manage their debts, but also to invest in the green transition.

Developing economies have faced a series of external shocks in recent years, including the COVID-19 pandemic, war-related disruptions of food and energy supply chains, and an uptick in global inflation. Moreover, their access to capital markets has been curtailed, preventing them from rolling over maturing loans, as they would do in normal times. As a result, countries have been forced to channel a large share of their tax and export revenues to service their debt, avoiding default at the cost of priorities like infrastructure investment, social-welfare programs, and climate action.

The outlook for these countries is likely to worsen in the next few years. According to estimates by the Finance for Development Lab (FDL), large debt payments are coming due in 2024 and 2026 for at least 20 low- and lower-middle-income countries. As countries hit this “debt wall,” their already fragile fiscal positions will deteriorate further. This does not bode well for climate action.

Climate change is not some distant menace; its effects are already being felt worldwide, especially in climate-vulnerable developing economies. But international summits on the topic last year sent a disappointing message: while developed economies pledged to increase climate financing by 2030, developing-economy policymakers are struggling against severe fiscal constraints. With medium-term strategies being used to address a short-term threat, developing and emerging economies have been expressing frustration, including at the Summit for a New Global Financing Pact that was held in Paris last June.

Multilateral development banks can provide an essential lifeline, but their capacity would have to be strengthened – and quickly. According to World Bank data, the new concessional loans the world’s poorest countries received from MDBs in 2022 were smaller than these countries’ debt-service payments, a large share of which went to private and bilateral creditors. Increasing capital flight from the developing world – driven not least by monetary tightening in advanced economies – will intensify the needs of illiquid lower-income countries.

But it is not only a matter of financial capacity. MDBs have so far been inconsistent, at best, when it comes to supporting countries struggling to repay their debts. For example, both Kenya and Ethiopia have been under pressure to repay their private and Chinese creditors, which are now collecting more in debt-service payments than they are providing in new loans. But only Kenya received enough support from the International Monetary Fund, the World Bank, and others to

refinance its debt that is maturing this year.

By contrast, assistance to Ethiopia has declined in recent years. As a result, Ethiopia recently defaulted on its external debt, even though it amounts to just 25% of GDP. While the Kenya approach is not the solution – providing similar levels of support to all illiquid countries would require a tripling of MDB flows – this is clearly unacceptable.

A better approach would focus on closing the gap between short-term debt concerns and long-term investment needs, by unlocking net-positive inflows for countries facing liquidity constraints. As the FDL has proposed, an agreement among debtors, creditors, and MDBs to permit countries to reschedule debts coming due – delaying maturities by 5-10 years – would create fiscal space for climate-friendly investments, financed by MDBs.

For this liquidity bridge to work, MDBs would have to accelerate progress on implementing existing reform plans and increase funding substantially, while the IMF helps manage debt-rollover risks. Importantly, private and bilateral creditors would have to agree to the rescheduling. That is why, compared to the Debt Service Suspension Initiative that the G20 introduced in 2020, the proposal includes stronger incentives for private-sector creditors to participate, in addition to longer time horizons.

There are good reasons to believe that creditors can be convinced to join the program voluntarily. It is, after all, in their best interest to remain invested in solvent countries with strong growth prospects; no one benefits from debt crises like those that have ensnared Zambia and Sri Lanka. In any case, creditors would continue receiving interest payments, and as global interest rates fall and economic-growth prospects improve in the coming years, debtors may well be able to return to capital markets and resume repayment of the

principal.

Shaping a workable blueprint along these lines is a task for upcoming international gatherings, such as the G20 summit in Brazil later this year. Logistical and financial coordination will be needed to ensure sufficient liquidity. Coordination among the IMF, the World Bank, and regional development banks will also be essential to ensure that participating debtor countries pursue investments that genuinely support green growth.

If nothing is done to help countries facing liquidity crises, the world will risk a wave of destabilizing debt defaults, and progress on the green transition will be severely undermined, with catastrophic implications for the entire world. Because promising solutions like the liquidity bridge can prevent such outcomes, they deserve broad global support.