German Companies Signal Looming Recession After Demand Plunges



German manufacturers are reinforcing concern that Europe's largest economy is headed into a recession.

A nationwide gauge showed orders at factories and services companies are dropping at the fastest pace in six years, and more companies now expect output to fall than rise over the next 12 months. That's the first time that's happened since 2014, according to the Purchasing Managers' Index from IHS Markit.

The peek into the engine room of European industry provides a damning snapshot of the economy, which shrank in the second quarter. The persistent weakness — driven in particular by mounting global trade tensions, car industry woes and slowing demand in China — doesn't bode well for the broader euro area.

European Central Bank policy makers have already started laying the groundwork to add monetary stimulus, and are

expected to cut interest rates at their next meeting in three weeks. In Germany, the government has made only tentative steps toward a fiscal stimulus program aimed at supporting growth.

"Somehow they are not looking at this data," said Carsten Brzeski, chief German economist at ING in Frankfurt. "The German government should react. We have this stagnation of the entire economy now and we really need some fiscal stimulus."

While the headline German composite PMI unexpectedly rose in August to 51.4 from 50.9, the index for factories remained far under 50, signaling a seventh month of contraction. Backlogs of work across both sectors fell for a 10th month and the pace of hiring slowed, with employment in manufacturing declining at the fastest pace in seven years.

What Bloomberg's Economists Say...

"There's a little light at the end of the tunnel for Germany's economy. The PMI — a trusted gauge of economic activity — picked up a little in August. The big risk is that a fresh blow to manufacturing materializes — the U.S. goes ahead with tariffs on EU car exports, for example — or that weakness in the industrial sector spreads to services."

Composite figures for France and the euro area also beat expectations, and the euro rose. Bunds declined, though 10-year yields are still well below zero.

"Germany remains a two-speed economy, with ongoing growth of services just about compensating for the sustained weakness in manufacturing," said IHS Markit economist Phil Smith. "Although improving slightly, the survey's output data haven't changed enough to dispel the threat of another slight contraction in gross domestic product in the third quarter."

Shell enters Australian power industry with ERM Power bid



MELBOURNE (Reuters) — Royal Dutch Shell has made its first foray into Australia's highly competitive power sector with a A\$617 million (\$419 million) takeover offer for ERM Power Ltd, the country's no.2 energy retailer to businesses and industry.

The deal would instantly give Shell a power supplier with almost a quarter share of the commercial and industrial retail market in Australia, second only to Origin Energy in that space. It will also get two gas-fired power stations.

Shell, already one of Australia's biggest gas producers, wants to use its global scale in oil and gas to build a power business, as the world rapidly shifts toward cleaner energy. It plans to boost annual spending on the strategy to between \$2 billion and \$3 billion by 2025.

"This acquisition aligns with Shell's global ambition to expand our integrated power business and builds on Shell Energy Australia's existing gas marketing and trading capability," Shell Australia's Country Chair Zoe Yujnovich said in a statement.

ERM agreed to the offer, pitched at a big 43% premium to its last closing price, and recommended shareholders should accept it in a vote expected in November.

ERM's founder and top shareholder, Trevor St Baker, who speaks for 27% of the company's shares, said in a statement he would accept the offer of A\$2.465 a share if no higher bid emerges.

Shell, which was advised by UBS, said Australia is one of the core markets for its new 'Emerging Power' theme, focused on strong growth in renewables to complement traditional fuels.

The ERM acquisition fits well with Shell's recent takeover of German solar battery maker sonnen, which has a presence in Australia, giving Shell a small foothold in selling to households alongside ERM's big business customers.

The power business will also give Shell another product to sell to its long established big fuel customers, like miners.

ERM Chief Executive Jon Stretch said there was little overlap with Shell's existing business in Australia, so he expected most of ERM's staff would remain with the business.

"It's clear that there's little in the way of overlap and cost synergies and the focus will be on combining for growth opportunities," he told reporters on a conference call.

ERM's shares soared to a four and a half-year high of A\$2.50 after the bid was announced and last traded at A\$2.44, just below the offer price, indicating investors don't expect a

higher offer to emerge.

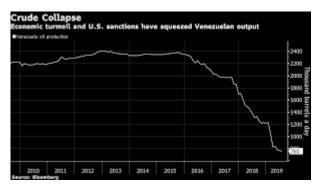
The company on Thursday reported underlying earnings of \$90.5 million for the 2019 financial year, down 7% from a year earlier, as sales fell 8% to 17.7 terrawatt hours (TWh) of power. It forecast sales would grow to 18.5 TWh this year.

Origin Energy, which also reported its results on Thursday, said it was undaunted by the pending entry of Shell in power retailing, saying Origin has managed to grow its share of commercial and industrial customers even with ERM as a strong competitor to date.

"It continues to be a competitive market. It's hard to anticipate what they may do differently," Origin Chief Executive Frank Calabria told Reuters in an interview.

https://www.reuters.com/article/us-erm-power-m-a-shellenergyau stralia/shell-enters-australia-power-industry-with-419million-bid-for-erm-power-idUSKCN1VB2L1

Half of Venezuela's oil rigs may disappear if US waivers lapse



(Bloomberg) — A looming U.S. sanctions deadline is threatening

to clobber Venezuela's dwindling oil-rig fleet and hamper energy production in the nation with the world's largest crude reserves.

Almost half the rigs operating in Venezuela will shut down by Oct. 25 if the Trump administration doesn't extend a 90-day waiver from its sanctions, according to data compiled from consultancy Caracas Capital Markets. That could further cripple the OPEC member's production because the structures are needed to drill new wells crucial for even maintaining output, which is already near the lowest level since the 1940s.

A shutdown in the rigs will also put pressure on Nicolas Maduro's administration, which counts oil revenues as its main lifeline. The U.S. is betting on increased economic pressure to oust the regime and bring fresh elections to the crisistorn nation, a founding member of the Organization of Petroleum Exporting Countries and Latin America's biggest crude exporter until recent years.

Venezuela had 23 oil rigs drilling in July, down from 49 just two years ago, data compiled by Baker Hughes show. Ten of those are exposed to U.S. sanctions, according to calculations by Caracas Capital Markets. The Treasury Department extended waivers in July for service providers to continue for three more months, less than the six months the companies had sought.

Most other government agencies involved in the deliberations opposed any extension, a senior administration official said last month, adding that another reprieve will be harder to come by.

"Almost half the rigs are being run by the Yanks, and if the window shuts down on this in two months, then that's really going to hurt Venezuela unless the Russians and the Chinese come in," said Russ Dallen, a Miami-based managing partner at

Caracas Capital Markets.

Output Risk

A U.S. Treasury official said the department doesn't generally comment on possible sanctions actions.

More than 200,000 barrels a day of output at four projects Chevron Corp. is keeping afloat could shut if the waivers aren't renewed. That would be debilitating to Maduro because the U.S. company, as a minority partner, only gets about 40,000 barrels a day of that production.

The departure of the American oil service providers would hurt other projects in the Orinoco region, where operators need to constantly drill wells just to keep output from declining. The U.S.-based companies are also involved in state-controlled Petroleos de Venezuela SA's joint ventures in other regions such as Lake Maracaibo.

Limiting Exposure

Halliburton Co., Schlumberger Ltd. and Weatherford International Ltd. have reduced staff and are limiting their exposure to the risk of non-payment in the country, according to people familiar with the situation. The three companies have written down a total of at least \$1.4 billion since 2018 in charges related to operations in Venezuela, according to financial filings. Baker Hughes had also scaled back before additional sanctions were announced earlier this year, the people said.

Schlumberger, Baker Hughes, Weatherford, PDVSA and Venezuela's oil ministry all declined to comment.

Halliburton has adjusted its Venezuela operations to customer activity, and continues operating all of its product service lines at its operational bases, including in the Orinoco Belt, it said in an emailed response to questions. It works directly

with several of PDVSA's joint ventures, and timely payments from customers are in accordance with U.S. regulations, it said.

Hamilton, Bermuda-based Nabors Industries Ltd. has three drilling rigs in Venezuela that can operate for a client until the sanctions expire in October, Chief Executive Officer Anthony Petrello said in a July 30 conference call, without naming the client.

The sanctions carry geopolitical risks for the U.S. If Maduro manages to hang on, American companies would lose a foothold in Venezuela, giving Russian competitors such as Rosneft Oil Co. a chance to fill the void. Chinese companies could also benefit. Even if the waivers get extended, the uncertainty hinders any long-term planning or investments in the nation by the exposed companies.

Rosneft's press office didn't respond to phone calls and emails seeking comment on operations in Venezuela.

-With assistance from David Wethe, Debjit Chakraborty and Dina Khrennikova.

To contact the reporters on this story: Peter Millard in Rio de Janeiro at pmillard1@bloomberg.net; Fabiola Zerpa in Caracas Office at fzerpa@bloomberg.net

To contact the editors responsible for this story: Tina Davis at tinadavis@bloomberg.net, Pratish Narayanan, Joe Ryan

For more articles like this, please visit us at bloomberg.com ©2019 Bloomberg L.P

The \$30bn exodus: Foreign oil firms bail on Canada



Capital keeps marching out of Canada's oil industry, with Kinder Morgan Inc.'s sale of its remaining holdings in the country on Wednesday adding to more than \$30 billion of foreign-company divestitures in the past three years.

Pembina Pipeline Corp., based in Calgary, is snapping up Kinder's Canadian assets and a cross-border pipeline in a \$3.3 billion deal. For Houston-based Kinder, the deal completes an exit from a country that has frustrated more than a few companies — from ConocoPhillips and Royal Dutch Shell Plc to Marathon Oil Corp.

The drumbeat of exits, rare for such a stable oil-producing country, adds an extra layer of gloom for an industry that accounts for about a fifth of Canada's exports. The energy sector — centered around Alberta's oil sands — has struggled to rebound since the 2014 crash in global oil prices, with

capital spending declining for five straight years and job cuts pushing the province's unemployment rate above 6%. Alberta is forecast to post the slowest growth of any region in Canada this year.

The situation isn't likely to improve any time soon, with key pipelines like TC Energy Corp.'s Keystone XL and Enbridge Inc.'s expansion of its Line 3 conduit bogged down by legal challenges. The lack of pipelines has weighed on Canadian heavy crude prices for years, sending them to a record low late in 2018.

"If they thought things were getting better in Canada, they might hold on, but they don't see things getting better," Laura Lau, who helps manage more than C\$2 billion (\$1.5 billion) at Brompton Corp. in Toronto, said in an interview. "The pipeline situation is getting worse; everything is getting worse."

Read more on the Pembina deal

Other recent major divestitures include ConocoPhillips' \$13.2 billion sale of oil-sands and natural gas assets to Cenovus Energy Inc. in 2017, and Shell's and Marathon's sales of their stakes in an oil-sands project to Canadian Natural Resources Ltd. for about \$10.7 billion that same year. Canadian Natural also bought Oklahoma City-based Devon Energy Corp.'s Canadian heavy oil assets this year for \$2.79 billion. Norway's Equinor ASA pulled out in 2016 after facing pressure at home to invest in lower-emission projects.

While a government curtailment program has boosted oil sands prices to more normal levels, the system has prevented companies from investing in new deposits. What's more, the oil sands are often viewed by investors as a higher-cost jurisdiction that produces a lower quality of heavy crude. Those persistent drags are likely to keep Canadian assets at the top of international companies' lists for potential

disposal, Lau said.

Kinder Morgan is in many ways the perfect example of the troubles — including slow-moving regulatory processes, an active environmental movement, and a variety of interprovincial squabbles. The company bought the Trans Mountain pipeline, which carries crude and other products from Edmonton to a shipping terminal in Vancouver, for about \$5.6 billion in 2005 in a bid to gain exposure to the oil sands — the world's third-largest crude reserves.

But a plan to roughly triple the capacity of the line got bogged down amid opposition from indigenous groups, environmentalists and British Columbia's government. Kinder threatened to scrap the expansion, which all but forced Prime Minister Justin Trudeau's government to step in and buy the entire line for about \$3.45 billion last year. The project took an initial step forward on Thursday as contractors were given approval to start some work on the line.

Bad Signal

"When they sold Trans Mountain, there wasn't much left, and it was just a matter of time for them to exit Canada completely," Lau said. "But definitely another foreign company exiting Canada doesn't send a good signal."

Not all foreign operators have abandoned Canada. Exxon Mobil Corp. still has a sizable presence with its controlling stake in Imperial Oil Ltd., a C\$25 billion company. Shell, based in The Hague, still owns a refining complex and natural gas production in Alberta and British Columbia. France's Total SA owns a portion of the Fort Hills mine, and Japanese and Chinese companies also have oil-sands projects. Conoco still has an oil-sands facility and holdings in the Montney shale play.

A potential catalyst for the sector could be the election of a

Conservative government in Canada's federal election in October, said Rafi Tahmazian, senior portfolio manager at Canoe Financial. That may change global investors' perceptions about the support the industry would receive from the government.

"The silver lining in this whole process is that Canada owns Canada again, and we got it pretty cheap," Tahmazian said in an interview. "Now the question is can we take advantage of that by allowing ourselves a more friendly environment for foreign investment?"

New US LNG export plans threatened as trade war drags on



(Bloomberg) — Terms of Trade is a daily newsletter that untangles a world embroiled in trade wars. Sign up here.

Liquefied natural gas may have dodged the latest round of Chinese tariffs on U.S. goods, but plans for new American terminals to ship the fuel abroad are under threat as the trade war escalates.

Tellurian Inc. and other developers will probably delay final investment decisions on multibillion-dollar U.S. LNG export projects to 2020 from this year as the tensions complicate negotiations with potential Chinese gas buyers, according to Bank of America Corp. While LNG isn't among the goods Beijing will target in retaliatory levies that take effect next month, a 25% duty imposed in June still stands, raised from 10% previously.

The trade dispute is intensifying as roughly a dozen companies look to become part of the so-called second wave of U.S. LNG

export terminals expected to start up in the next few years. Smaller developers face intense competition from deep-pocketed oil giants like Exxon Mobil Corp., Qatar Petroleum and Royal Dutch Shell Plc, which didn't need to sign long-term contracts before greenlighting their projects. A collapse in global gas prices amid a glut of supply from the U.S. to Australia is also pressuring the industry.

For an investment decision on Tellurian's \$28 billion Driftwood project in Louisiana, "we see delays as likely given current pricing headwinds, no resolution yet on the U.S.-China trade war, and minimal contract announcements in recent months," Bank of America analysts led by Julien Dumoulin-Smith wrote Friday in a note to clients. Joi Lecznar, a spokeswoman for Tellurian, said the company is still targeting a final investment decision this year.

Liquefied Natural Gas Ltd. will also likely push back a final investment decision on its Magnolia terminal in Louisiana to 2020 because of growing competition, and NextDecade Corp. may delay a decision on its Rio Grande project in Texas to next year, according to Cowen Inc. Toni Beck, a spokeswoman for NextDecade, said the company is still planning a final investment decision in 2019. LNG Ltd. declined to comment.

Shares of Tellurian fell as much as 19% Friday, the most since March, after surging earlier in the month. NextDecade dropped as much as 13%, while LNG Ltd. slipped 2.6%.

While China is a fast-growing market for gas, it hasn't imported any U.S. LNG since February, according to vessel tracking data compiled by Bloomberg. The Asian nation has received 62 American cargoes since 2016, putting it behind South Korea, Mexico and Japan.

Exports of U.S. shale gas have surged since 2016, when Cheniere Energy Inc. started up the Sabine Pass terminal in Louisiana, the first to ship LNG from the lower 48 states. The

nation is now the world's third-largest supplier of the fuel, after Australia and Qatar. Though two new U.S. terminals are about to begin exporting and more are under construction, failure to resolve the trade tensions could slow the industry's rapid growth.

"There's increased competition from players that don't really need third-party financing. China definitely didn't make it easier," Cowen analyst Jason Gabelman said in a telephone interview on Thursday.

With cargoes to China effectively halted and deliveries to Europe easing as low prices there reduce the incentive to ship U.S. gas farther afield, South America is soaking up much of the excess supply. So far this year, Argentina, Brazil, Chile and Colombia are snapping up the most U.S. LNG on record.

LNG developers may not be the only gas players hurt by the trade rift. It's also threatening U.S. gas producers relying on exports to ease the shale glut, particularly in the Permian Basin, where prices for the fuel dipped below zero earlier this year as pipeline bottlenecks forced drillers to pay others to take their supply.

For beleaguered U.S. gas drillers, "it's another negative," said John Kilduff, partner at Again Capital LLC, a New York-based hedge fund.

-With assistance from Kevin Varley.

To contact the reporters on this story: Christine Buurma in New York at cbuurmal@bloomberg.net; Naureen S. Malik in New York at nmalik28@bloomberg.net

To contact the editors responsible for this story: Simon Casey at scasey4@bloomberg.net, Christine Buurma, Carlos Caminada

https://finance.yahoo.com/news/u-lng-export-plans-threatened-090000072.html

West African oil hits sweet spot as shipping upgrades to cleaner fuel



LONDON (Reuters) — African states like Chad and Cameroon are shaping up to be big winners from new rules to cut sulfur emissions from ships, providing just the right type of oil to produce cleaner fuels.

Only around 1% of the world's crude oil exports are heavy and sweet varieties, ideal for refining into fuel with a maximum 0.5% sulfur content mandated by International Maritime Organization (IMO) rules coming into force worldwide on Jan. 1.

The regulations will tighten limits from the 3.5% sulfur levels allowed now, aiming to improve human health by reducing

air pollution.

West African oil, mostly outside the continent's top exporter Nigeria, is set to provide the "Holy Grail" for these IMO 2020 fuels, according to market research firm ClipperData.

Nearly three-quarters of the world's exports of heavy sweet crude — defined as oil with less than 0.5% sulfur content — come from the region, with Angolan Dalia, Chadian Doba Blend and Cameroonian Lokele alone making up most of that portion.

(Graphic: Heavy sweet crude exports link: here(2).png)

"The new environmental regulation starts in January, but preparation has already begun. Refiners need to ready their supply streams and learn how to best prepare for a low sulfur future," said Josh Lowell, senior energy analyst at ClipperData.

"Even though trading houses and refiners are keeping their strategy and timing close to their chest, it's clear certain West African grades really stand to benefit."

Prices for the coveted oil are already soaring.

According to price reporting agency Argus, Doba has vaulted to 75 cents above dated Brent this month from 60 cents below at the beginning of 2018, while Dalia went from a 60 cent discount to a \$2.50 premium over the same period.

By Wednesday, traders said Angolan state oil company Sonangol was offering Dalia at \$3.00 above dated Brent and similar grade Girassol at \$3.20.

"Outages from Iran and Venezuela after U.S. sanctions, ramped up Chinese demand and the IMO rules around the corner — all these factors have been quite supportive for medium to heavy sweet grades," one seller of Angolan crude told Reuters.

Because much of Angola's oil is bound to flow to China per

term agreements, interest has mounted in grades trading more freely on the market.

Oil from landlocked Chad, piped south-westward and exported by sea via Cameroon, has increased in volume since new fields came online this year and is being increasingly snapped up in the world's key refining hubs.

"Recent flows of Doba have seen it head to suppliers already providing very low-sulfur fuel oil (VLSFO) to the market," analytics firm Vortexa said.

"Going forward, we expect continued demand from the Fujairah and Rotterdam bunkering and blending hubs, as well as from the U.S. Atlantic coast."

Industry sources say trading giant Vitol bagged all three cargoes of Doba scheduled for export in August, with at least one bound for Fujairah in the United Arab Emirates, where refinery re-tooling is underway ahead of the rules, also known as IMO 2020.

The rule changes are requiring massive investment as refiners cut sulfur content in their output. ExxonMobil completed a \$1 billion unit at its Antwerp refinery last year to upgrade high-sulfur fuel into various types of diesel, including the variant mandated by the IMO 2020 rules.

Germany's Uniper upgraded its plant in Fujairah earlier this year to produce fuel oil with a content of 0.1% to 0.5% sulfur, while Vitol's Fujairah refinery is already producing compliant fuels.

In a sign that the quest is afoot for comparable grades further afield, cargoes of Argentinian Escalante and Brazilian Ostra grades were also bound for Fujairah this month for the first time ever, according to Refinitiv Eikon data.

Likewise, the bunkering hub at Singapore took on more cargoes

of heavy sweet Australian crude at record prices since March than in all previous years combined.

https://www.reuters.com/article/us-shipping-imo/west-african-oil-hits-sweet-spot-as-shipping-upgrades-to-cleaner-fuel-idUSKCN1VC16C

Humbled Noble Group seeks to rebuild LNG, energy businesses: sources



SINGAPORE (Reuters) — Noble Group Holdings (Noble Holdings) plans to rebuild its liquefied natural gas (LNG) and core energy businesses and develop rare earths as it seeks new life as a niche, Asia-focused commodity trader, sources aware of

the matter said.

"We have enough credit lines to expand the LNG business. In our restructuring, we made sure we had ample credit facilities, so we could build the business that we lost," said one senior executive with the company, which took over assets of the under-liquidation Noble Group Ltd (NOBG.SI).

Noble Holdings has now set up a Singapore desk for LNG by hiring a former trader from Australia's Origin Energy (ORG.AX), expanding its four-person LNG team in London, industry sources told Reuters.

"The company has always had an LNG team but activities were wound down for a while and are now starting back up," one of the sources said, declining to be named as the person was not authorized to speak with the media.

Three LNG traders including two co-heads of the team had left Noble in 2016 to join rival Glencore (GLEN.L). It also sold its U.S. gas and power business to another rival, Mercuria.

The new Singapore LNG desk will focus on trading, the source said. The restart of the desk has not been previously reported.

"We've been in a process to prove to the market that Noble is a viable enterprise and can continue to fulfill contracts," the company executive said, using a 3-year trade finance facility of \$700 million secured as part of its restructure.

Noble, once Asia's biggest commodity trader, saw its market value all but wiped out from \$6 billion in February 2015 after Iceberg Research issued reports accusing it of inflating its assets.

To rescue itself, Noble sold billions of dollars of assets, took hefty writedowns and cut hundreds of jobs over the last few years, although it defended its accounting practices.

As Noble faced insolvency protection, shareholders approved a \$3.5 billion debt restructuring deal that completed in December and left them owning just 20 percent, with creditors taking majority control.

Noble Holdings, whose portfolio comprises a trading division dealing in energy coal, LNG, base metals and other products, declined comment. Another division houses its investments in alumina company Jamalco and U.S. based oil and gas producer Harbour Energy and other businesses.

The company is also recruiting for roles including analysts for base metals and coke, and a sales trader to market energy products in Japan, sources said.

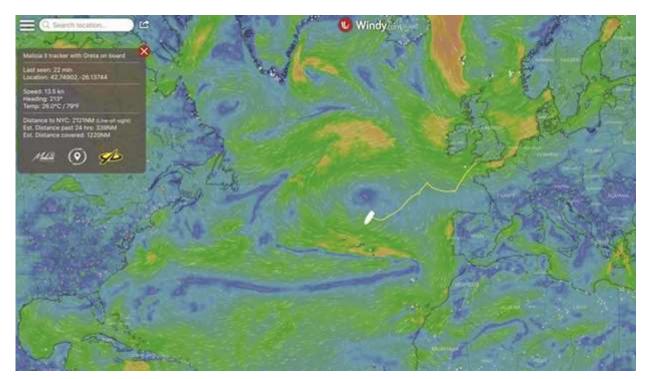
Technology metals or rare earths are expected to be a focus area for Noble Holdings, which through its subsidiary took a small stake in ambitious Australian rare earths developer Arafura Resources (ARU.AX) this year. The executive said Noble Holdings is eyeing other opportunities in the sector.

In the first half of 2019, Noble Holdings reported a net profit of \$46.4 million. Employing about 280 staff, it has been gradually building up its trading teams by hiring in Singapore and Hong Kong.

In December, Singapore authorities blocked the listing of the restructured company amid a regulatory probe.

https://www.reuters.com/article/us-noble-group-strategy-exclusive/exclusive-humbled-noble-group-seeks-to-rebuild-lng-energy-businesses-sources-idUSKCN1VB0VF

Planetary thinking



By Erik Berglof London

The Swedish climate truthsayer Greta Thunberg has set sail for the United States in a zero-emissions racing yacht to generate waves in a different part of the world — including at next month's United Nations Climate Action Summit in New York. She will arrive in America at a time of growing transatlantic awareness of the threat posed by climate change. But whether shifts in public opinion will translate into concrete action remains to be seen.

Taking sustainability seriously means that we can no longer ignore our planetary boundaries. We need to start designing tools and policies to make all aspects of society more sustainable, before the costs of doing so become so large as to impoverish us. This has increasingly become a task not just for academics who specialise in the field, but for scholars and researchers generally. Sustainability should now be the lens through which we approach all policy-related empirical questions. We need challenge-driven, mission-oriented research, and that calls for a broad multidisciplinary effort. To that end, Michael Grubb of the University of Cambridge,

along with two co-authors, made a monumental contribution with his 2014 book Planetary Economics: Energy, Climate Change, and the Three Domains of Sustainable Development. Grubb marshals a broad range of tools from within the economics discipline to chart the way to a sustainable society. That framework will need to be broadened beyond economics, but it provides a useful starting point.

The "three domains" in the book's subtitle concern human behaviour, and how it can be influenced through regulation, traditional market-based pricing, and innovation. Transforming a system requires action in all three areas. For example, better regulation can change human behaviour in a way that reduces prices and spurs innovation, in turn yielding even better regulation and lower costs.

Unfortunately, these three traditional domains within economics have each evolved separately, developing their own languages, evidence, policy recommendations, professional societies, and journals. The goal of a "planetary economics" is to integrate the domains within a single community, whose sole objective is to build a civilisation that can exist within Earth's boundaries.

This is already happening on the margins. Evolutionary and institutional economists are talking to organisational and behavioural economists about how individual social and economic choices make up complex systems over time. Complexity economists like W Brian Arthur have been studying such questions for decades. And, in parallel, "Solow Residual" economists have drawn on all three domains to make sense of unexplained factors in economic growth.

But this multidisciplinary intermingling is not happening nearly fast enough. What we need is a new field of planetary social science to unite different perspectives, conceptual frameworks, and analytical tools — from political science, sociology, anthropology, and psychology. Just as we cannot ignore the climate science, nor can we ignore the geopolitical and security challenges that will confront a warming planet.

Beyond the participation of individual consumers, private

corporations, and civil society, building a sustainable global economy will require active state intervention. Governments urgently must adjust regulatory frameworks, reset market incentives, and expand the hard and soft infrastructure needed for innovation to thrive. Moreover, policymakers should be prepared to take calculated risks, and to recalibrate policies based on feedback.

The sub-discipline that has perhaps come closest to integrating other disciplines, including medicine and environmental science, is public health. In Survival: One Health, One Planet, One Future, George R Lueddeke, the chair of the One Health Education Task Force, shows how public health can be incorporated into a wide range of fields to address individual, population, and ecosystem health.

Another crucial area, of course, is education. In 2015, the international community adopted the UN's 2030 Agenda and the 17 Sustainable Development Goals, one of which (SDG 4) regards high-quality universal education as a key to building "peaceful, just, and inclusive societies." Yet progress toward this goal, particularly in developing countries, is being hampered by inequality, poverty, financial shortfalls, extremism, and armed conflict.

In advanced economies, education systems need to prepare students for a world that is undergoing fundamental social, economic, and technological change. Young people today will need the skills not just to cope with the ongoing transformation, but to lead it. That means education policy, too, must become challenge-driven. In practical terms, every university should consider creating a compulsory course on systems thinking and cross-disciplinary approaches.

Meanwhile, public- and private-sector organisations around the world are being asked to integrate the SDGs into their daily operations. In Survival, 17 organisations, ranging from the US Centres for Disease Control and Prevention to the World Wildlife Fund, tell Lueddeke how they are adopting a more multidisciplinary approach. But, in general, it is clear that many — if not most — countries have yet to consider the costs

of implementing the SDGs fully. Without their active participation, success is unlikely.

In fact, most national finance ministries have not fully bought into the 2030 Agenda. In advocating sustainability, we must not create new vulnerabilities in the form of overindebtedness. Recent experience shows that financial crises can rapidly undermine economic and political achievements, sometimes reversing decades of development or jeopardising future economic growth and stability.

As Greta Thunberg steps onto new shores, those in power should consider their responsibility to all generations. We urgently need to create the conditions for the emergence of a planetary social science that can inform our policy decisions. Ultimately, the planet will carry on. But whether humanity survives will depend on the leadership shown today, and on the systems of governance and scholarship that we build for the future. There is nothing like the prospect of extinction to focus the mind. — Project Syndicate

* Erik Berglof is professor and Director of the Institute of Global Affairs at the London School of Economics and Political Science.

Britain and Italy are now the terrible twins of Europe



By Martin Kettle London

For most of the time since 1945, the politics and government of Britain and Italy have seemed like polar opposites. True, both were important European powers. True too, each had a place among the world's major economies. Even now, Britain and Italy will be among the select group of economically powerful nations whose leaders will gather in the Second Empire splendour of Biarritz's Hotel du Palais this weekend for the latest G7 summit.

In the past, that was where the similarities began to ebb away. In politics, Britain was famously stable while Italy was infamously not. British governments were domestically strong, while Italian governments were weak and short-lived.

In Britain, leftwing politics was rooted in industrial unionism, while Italy possessed the largest, most modern-minded and most alluring communist party in the West. When Britain looked in the mirror it saw the embodiment of probity and practicality, while Italy was all too often synonymous with crime and corruption. While Britain maintained its autonomy by refusing to join the eurozone, Italy enthusiastically embraced its upper mid-table place in the EU and its membership of the single currency was shamelessly

engineered.

Today, the political comparison is marked not by divergence but by an increasing convergence. Politically, Britain is becoming more like Italy. Like Italy, Britain is increasingly hard to govern country that makes less and less effort to address its underlying economic, social and political problems. Instead, like Italy, Britain appears to be drifting steadily to the right under skilful populist leaders whom the political institutions are proving unable to control. The collapse of Italy's populist coalition this week is not, at first sight, an event with many British resonances. Both parties in the coalition are recent creations, a far cry from a Conservative party that traces its history deep into the 19th century. The rightwing Lega is the latest iteration of the old anti-migrant Lega Nord, which dated from only 1991, while the Five Star Movement is more recent still, a root-andbranch anti-establishment party. Yet the division that brought down the coalition and led to prime minister Giuseppe Conte's resignation on Tuesday has real echoes of the battles in the Conservative party.

Like Theresa May, Conte was forced to quit because the Lega, under Matteo Salvini, has created a position in which it thinks it can win an election. That is precisely the belief that fires Boris Johnson. Salvini's mix of anti-immigrant braggadocio, confrontational hostility to the EU in general, and to Germany in particular, plus his readiness to borrow and increase the deficit, and his intention, if elected, to slash taxes, has its reflections in Priti Patel's potentially brutal migration controls, Johnson's sabre-rattling approach to May's withdrawal agreement and the UK government's election-mode fiscal liberality.

None of this is to pretend that Britain and Italy are marching to exactly the same political drum. But if Angela Merkel, who hosted Johnson's first European trip as prime minister on Wednesday, were to be asked privately to nominate her most unwelcome EU leader colleagues, it is a fair bet that Johnson and Salvini would come top of her current list, above even

Hungary's Viktor Orbán.

The Italian and British rightwing populist leaders, egged on by Donald Trump's administration in Washington, represent a deliberate challenge to traditional politics in general and to the EU's future in particular. Until recently, the visit of a British prime minister to the German chancellor was a ritual reaffirmation of commitment to stability. Not any more, and not on Wednesday. It is an alarming thought — though it should not be overplayed either — that Wednesday's was almost certainly the most destabilising Anglo-German summit since Munich in 1938.

To add the words "except Italy" to every generalisation about Europe would become tiresome, historian AJP Taylor once said. From now on, he added, the words should therefore be taken as read. Many of us grew up looking at Italy's place in Europe in that way. Cooler and more stylish than us, certainly, but also more corrupt and more unshakeably right wing, Italy seemed to follow its own unique and inimitable route through European modernity.

For much of the postwar era, this way of looking at Italy made some sense. Compared with centralised France and Britain, Italy was a devolved state. Power lay in the cities and the regions, where Rome's writ did not run. Compared with Germany and Scandinavia, Italy was economically protectionist, inefficient and institutionally rotten. While the citizens of most countries in Europe liked to think that they obeyed the laws, paid their taxes and provided for their poor, many Italians picked and chose which rules to follow, joked about paying their taxes and were often overtly hostile to the impoverished south of the country, as Salvini is today to African and Arab migrants.

For a while, it was possible to believe that, if there were convergence between the two, it would be Italy that managed to change, adapting itself to the liberal democratic capitalist habits of the EU. But that hasn't happened. Italy's exceptionalism is now, if anything, more pronounced. Under Johnson, Britain is accelerating in a similar direction of its

own. Since the fall of the Syriza government in Greece, Italy and Brexit Britain together pose the most direct challenges to the EU's legal, budgetary and human rights underpinnings.

For the avoidance of doubt, precise parallels between Italy and Britain, or Salvini and Johnson, should not be pushed too far. There remain many profound differences between the two national conjunctures. But their rightward trajectories, their preoccupation with winning votes on the right not the centre, and their mastery of the black arts of political campaigning in the digital age all come from the same soil. Those who have argued for many years for Britain to become more like Germany or Sweden have to wake up to what is happening. Italy and Britain, an improbable political duo if ever there was one, have become the terrible twins of Europe. — Guardian News and Media

Greece mulling defense deal extension with US



Athens is looking to extend the US-Greece defense agreement, also known as the Souda Agreement, by a year when US Secretary of State Mike Pompeo visits in October or November, it emerged after Wednesday's meeting between Prime Minister Kyriakos Mitsotakis and US House Appropriations Committee Chairwoman Nita Lowey at the Maximos Mansion in Athens.

Meanwhile, the prospect of a meeting next month between Mitsotakis and US President Donald Trump was also reportedly discussed.

Lowey also met with Foreign Minister Nikos Dendias and his deputy Antonis Diamataris for talks that reportedly focused on areas of the US-Greece Strategic Dialogue and efforts to promote common interests in the Eastern Mediterranean region.

In a tweet, US Ambassador to Greece Geoffrey Pyatt, who was at both meetings, said the discussion with Dendias focused on "progress in all areas of the US-Greece Strategic Dialogue and the commitment of both our governments to do even more to promote common interests in the EastMed and strengthen Greece as regional pillar of stability."

As for the meeting between Mitsotakis and Trump, this could reportedly take place on the sidelines of the United Nations General Assembly in New York in late September. Pyatt reportedly said that the timing is right for such a meeting.

Meanwhile, Mitsotakis begins his tour of European capitals on Friday, starting in Paris for talks with French President Emmanuel Macron.

The prime minister is expected to tout the momentum of New Democracy's election victory, which has been reflected in the positive reaction of markets, as well as the notion that his government is a pillar of stability in the European south.

The bottom line is to restore confidence in Greece and to convey the message that it is no longer a "problematic" country in Europe, but one that is ready to undertake and support EU initiatives — among them Macron's green agenda and the strengthening of European defense cooperation.

By getting this message across, Mitsotakis aims to pave the way for discussions on the primary surpluses Greece has agreed to achieve.

He is expected to provide reassurances that the targets for 2019 and 2020 will be met, but also that his reform package to stimulate the Greek economy will allow for a new outlook as of 2021.