Oil and Gas News Briefs Compiled by Larry Persily August 12, 2019

Texas regulators allow gas producer to flare all its production

(Bloomberg; Aug. 8) - An unusual split vote by Texas regulators over the flaring of natural gas shows that the days of giving a free pass to the controversial practice in the Lone Star state may be numbered. The chairman of the Texas Railroad Commission, which oversees the oil and gas industry in the state, dissented during a recent hearing over a Permian Basin flaring permit. Wayne Christian said there is too much gas being burned off out of convenience rather than necessity, and he is concerned about the "frequency and ease" with which companies are being allowed to continue the practice.

While his comments didn't alter official policy, they indicate a change may be coming. Texas is widely regarded as the most oil-and-gas-friendly state, and the commission has never turned down a request to burn excess gas. But the volume now being flared — more than residential gas demand for the whole of Texas — has attracted criticism for both its wastefulness and the carbon dioxide emissions that come with it.

Flaring is common in the Permian, where companies increasingly resort to burning off the fuel because of a lack of pipeline capacity. Christian made his comments Aug. 6 at a commission meeting to hear pipeline operator Williams Co. argue against a flaring permit for EXCO Resources. It was the first time a driller had asked for a permit for all the gas coming out of wells connected to pipelines. Because it would be uneconomic to use a pipeline, Commissioner Ryan Sitton said it would be unreasonable to deny the permit under current policy. EXCO won approval to flare until March 2020 on a 2-1 vote.

Methane leakage undermines 'clean energy' label for gas

(Wall Street Journal; Aug. 8) - Energy companies are producing record volumes of natural gas, thanks in part to the U.S. fracking boom. But growing public concern over leaks and intentional releases of natural gas and its primary component, methane, threaten to derail the dominance of gas in the new energy world order. Methane is far more potent than carbon dioxide in contributing to climate change. That makes it particularly harmful to the environment when discharged into the atmosphere.

In the U.S. alone each year, the methane that leaks or is released from oil and gas operations is equivalent to the greenhouse-gas emissions from more than 69 million cars, according to a Wall Street Journal analysis using formulas from the Environmental Protection Agency and estimates for 2015 published last year in the journal Science.

About 2.3 percent of the gas produced in the U.S. escapes into the atmosphere due in part to leaky equipment or intentional discharges, according to the Science study.

At that rate, it would have amounted to about \$7.6 million worth of gas lost each day last year. Another \$4.5 million in U.S. gas went up in smoke each day in 2018, World Bank data show, as energy companies burned fuel they couldn't move to market or chose not to ship because the cost of doing so would have exceeded the market value. Many companies drill primarily for oil and treat the gas released in the process as a byproduct.

The U.S. lacks stringent rules to limit methane emissions, and President Donald Trump has moved to relax existing federal requirements for monitoring and fixing leaks. Still, from giants to the independents powering the shale boom, companies are scrambling to lower emissions over concerns from shareholders and environmentalists that gas waste could undermine the case for gas as the "bridge fuel" to a cleaner future of renewables.

Chevron starts carbon capture at Gorgon LNG plant

(Reuters; Aug. 8) - Chevron said Aug. 8 it has launched one of the world's largest carbon capture and storage projects, injecting carbon dioxide into a deep reservoir under an island off Western Australia at its Gorgon LNG project. The carbon storage project was delayed by more than two years as Chevron encountered problems with valves and pipeline equipment for the A\$2.5 billion (\$1.7 billion) injection system.

Gorgon is the biggest emitter of carbon emissions out of Australia's 10 LNG plants — gas from the field contains 14 percent CO2. Growth in LNG exports has been a big contributor to Australia's rising CO2 emissions. The injection operation, which will be ramped up over several months, will reduce Gorgon's emissions by 40 percent over the life of the project, the company said. Western Australia's state government approved the US\$54 billion Gorgon project in 2009 on the condition that some of the carbon dioxide from its gas processing operations would be stored underground.

LNG projects separate carbon dioxide before gas is liquefied to stop the gas from freezing into dry ice. At many other plants CO2 is vented into the air. Richie Merzian, climate and energy program director with progressive think tank The Australia Institute, described the start of the project as "better late than never." He said the company had not released details of how much CO2 it had sequestered. "Given the lengthy delays and excuses Chevron has offered to date ... we will watch with interest when the project gets ramped up and is fully operational as promised," Merzian said.

China continues to push for household conversions away from coal

(Reuters; Aug. 7) - China's central province of Henan plans to convert more households from coal to gas or electric heat in 2019 to further improve its air quality. It aims to replace coal-fired heaters in 2 million households with gas or electric systems by the end of this year, the provincial government-backed Henan Daily reported Aug. 7. That compares to 1.124 million household conversions in 2018.

The industrial province is one of the most polluted regions in China. Five of its cities were included among the country's 20 worst-performing cities in cleaning its air during the first half of 2019, as published by the environmental ministry. The Henan government will also ban coal burning in the plains regions of the province before the winter heating season in 2020, except at coal-fired power plants and at central heating systems, the Henan Daily reported.

The province plans to allocate more funds and attract more public capital to subsidize residents, especially in rural areas, for the fuel-switch. With Beijing's push to reduce coal burning, nearly 13 million households in northern China have switched to electric or gas heat since 2016. The central government has not published its 2019 target for coal substitution across the country, but Hebei province, China's top steel-making hub, has pledged to convert 1.8 million households to electric and gas heat from coal this year.

China's coal imports jumped 21% in July to meet power demand

(Reuters; Aug. 8) - China's coal imports jumped 21.4 percent in July from a month earlier to 32.89 million tonnes, customs data showed, boosted by strong demand for electricity as households and businesses cranked up their air conditioning in the face of hot weather. China, the world's biggest coal user, took in a total 187.36 million tonnes of coal in the first seven months of 2019, up 7 percent from the same period last year, data from the General Administration of Customs showed on Aug. 8.

The state power grid also recorded the highest-ever power transmission loads last month in 10 provinces, including the industrial heartlands of Shandong, Jiangsu and Zhejiang. The climb in imports came even as customs halted coal clearances at several ports, from Dalian in the north to Fangchenggang in the south, without giving any explanation. Traders said some inland ports in Inner Mongolia also tightened coal imports by reducing the number of trucks that could enter at border checkpoints.

Traders and other market participants said they do not expect the import restrictions to be lifted in the short-term as China has already imported large volumes of coal this year and as domestic mine output has been rising. The central government has been urging domestic coal miners to ramp up production to ensure enough supply. Chinese miners dug out 333.35 million tonnes in June, up 10.4 percent from the same month in 2018.

Russia orders two more nuclear-powered icebreakers

(The Moscow Times; Aug. 8) - United Shipbuilding Corp., the largest shipbuilder in Russia, has won an order to build two nuclear-powered icebreakers, worth an estimated 100 billion rubles (US\$1.5 billion), the Vedomosti business daily reported Aug. 7, citing an announcement by Rosatom, the state atomic energy agency. The ships will be the fourth and fifth atomic icebreakers in Russia, with delivery planned for 2024 and 2026.

United Shipbuilding has built other three nuclear-powered icebreakers launched in 2013, 2015 and 2016. The two newest icebreakers will be 568 feet long, powered by twin RITM-200 reactors that deliver a combined 175 megawatts of power — the most powerful civilian vessels in the world.

The new order is part of Moscow's push to bring the Arctic under its control as climate change thins polar ice, opening a shipping route between Europe and Asia. The 3,700-mile Northern Sea Route can lop days off conventional shipping schedules via the Suez Canal. But icebreaking vessels are still needed to keep trade lanes open for much of the year — a service for which Moscow charges shippers a hefty toll.

'Oil is at the edge of a cliff,' bank analysts report

(Wall Street Journal; Aug. 6) - Oil investors are as worried about slowing demand as they are about excess supply, amid fresh concerns that the U.S.-China trade fight will hurt the global economy and curb fuel consumption. Brent, the global price, slid to \$58.94 a barrel on Aug. 6, falling more than 20 percent from its April peak. U.S. crude tumbled roughly 8 percent Aug 1, the steepest one-day drop since 2015, after President Donald Trump announced a new round of tariffs on China.

Analysts said the latest tariff threats — if enacted on Sept. 1, as Trump has pledged — could quickly sap oil demand worldwide. "President Trump's unexpected tariff announcement ... suddenly revived the specter of an economic slowdown, akin to bubonic plague for oil demand," said Robert McNally, president of Rapidan Energy Group. August marked the seventh consecutive month that the U.S. Energy Information Administration cut its forecast for growth in global oil consumption for 2019.

The sharp price decline in recent days is a sign of how much has changed in the past year. U.S. oil prices broke above \$75 a barrel in October on expectations that supplies would dwindle after Trump re-imposed sanctions on Iran. Now crude prices are languishing after companies have pulled back on spending and manufacturing activity has for the most part weakened this year. "Oil is at the edge of a cliff," analysts at Bank of America Merrill Lynch wrote in a research note.

Summer U.S. spot-market natural gas prices at 20-year low

(Reuters; Aug. 8) - U.S. natural gas demand is at an all-time high and expected to keep rising — and yet prices are falling. U.S. gas futures this week collapsed to a three-year low, while spot prices were on track to post their weakest summer in more than 20 years. In other markets, such lackluster pricing would cause investment to retrench and supply to contract. But gas production is at a record high and expected to keep growing.

Demand is rising as power generators shut down coal plants and burn more gas for electricity and as rapidly expanding liquefied natural gas terminals turn more of the fuel into super-cooled liquid for export. Analysts believe the gas market is not trading on demand fundamentals because supply growth continues to far outpace rising consumption. Energy firms are pulling record amounts of oil from shale formations, and with that oil comes associated gas that needs either to be shipped or burned off.

On the New York Mercantile Exchange, gas futures this week dropped to \$2.03 per million Btu, the lowest since May 2016. For the summer spot gas prices at the Henry Hub benchmark in Louisiana were on track to fall to their lowest since 1998. The U.S. Energy Information Administration projects gas production will rise 10 percent to 91 billion cubic feet per day in 2019 after soaring 12 percent to a record 83.4 bcf per day in 2018, its biggest annual percentage increase since 1951.

Spot-market LNG sales to Japan at lowest price in 3 years

(Reuters; Aug. 9) - The price Japanese utilities paid for spot cargoes of liquefied natural gas last month were at their lowest in more than three years, data from the trade ministry showed Aug. 9. The price for spot LNG shipped to Japan in July fell to an average of \$4.70 per million Btu, the lowest since May 2016, when the price was \$4.10, data from the Ministry of Economy, Trade and Industry showed.

The low prices are helping utilities cut costs but their overall import price in June was much higher, at \$9.14, because they buy most of their LNG under contracts linked to oil prices. The spot-market decline is pushing utilities in Japan to be more aggressive in price reviews built into their long-term contracts. The tougher stance marks a shift for the utilities, which have favored stability of supply over price, partly because they have been able to pass on costs to consumers but now face competition from new entrants.

Tokyo Gas, Hokkaido Electric Power, Tohoku Electric Power, Kyushu Electric Power, and Hokuriku Electric Power have all said they are looking at ways to take advantage of cheaper spot LNG. But the utilities are also limited in the number of spot cargoes they can take because most of their supply comes under take-or-pay, long-term contracts.

High contract prices prompt Japanese LNG buyers to take less gas

(Reuters; Aug. 8) - Some Japanese buyers are seeking to delay shipments or reduce volume under their long-term contracts from the Ichthys liquefied natural gas project in Australia amid slumping spot LNG prices, an Inpex executive said Aug. 8. A steep drop in LNG spot-market prices is driving some buyers in Japan and China to request delays in deliveries, while others are looking to use the "downward quantity tolerances" in their contracts to reduce the volumes, industry sources told Reuters earlier this year.

"We are getting those requests as spot LNG market prices are lower than term contract prices," Inpex Senior Managing Executive Officer Masahiro Murayama said. Inpex operates the Ichthys project. "(Buyers) have a right to ask to raise or reduce quantity within a certain range agreed under the long-term contracts," Murayama told an earnings news conference. "It does not mean that we will lose all quantity, but some adjustments such as increasing or cutting quantity have been made," he said.

The decline in spot prices is also pushing utilities in Japan to be more aggressive in price reviews built into traditional long-term contracts linked to oil prices, lawyers and analysts said. Long-term LNG contracts are typically priced against oil prices and are currently at about \$9 to \$10 per million Btu as compared to current spot prices at about \$4. Murayama said LNG spot prices have been weighed down by worries of weakening demand and a slowing global economy. "We may see some delays in final investment decisions in new LNG projects given the current market environment," he said.

<u>India will consider renegotiating more LNG supply contracts</u>

(Reuters; Aug. 8) - India's top gas importer Petronet LNG will consider renegotiating its long-term supply deals in an effort to reduce costs if spot-market prices remain weak for another two to three years, its managing director said Aug. 8. "There is no doubt. We have to be sensitive to the international market. If spot prices continue to be low for two to three years then you don't have much of a choice, and there would be a case to look at renegotiation," Prabhat Singh told Reuters.

Petronet has a deal to buy 7.5 million tonnes of LNG annually from Qatar's RasGas and 1.44 million tonnes from ExxonMobil's share of the Gorgon project in Australia. The Indian company is buying gas under the two contracts at oil-linked prices, paying \$8.25 to \$9.50 per million Btu, Singh said, while global spot-market LNG prices, determined by fluctuating supply and demand, are around \$4 this summer.

Petronet previously renegotiated pricing of an Australian supply deal in 2017 and with RasGas in 2015. There is a gradual shift under way to pricing long-term LNG purchase deals off spot-price indices rather than crude oil prices, Singh said.

Oversupplied global market squeezes netback on Cheniere LNG

(S&P Global Platts; Aug. 8) - Cheniere Energy has been bringing additional liquefaction trains online ahead of schedule at its Gulf Coast plants, contributing to the near-term global glut. Meanwhile, the company has not been able to take advantage of recent Chinese import demand growth because of the retaliatory tariffs the country imposed as part of Washington's trade war. The results reflect a dual conundrum for the biggest U.S. exporter of LNG and individual consumer of pipeline-ready natural gas.

Winter spreads suggest better netbacks are ahead, and supply is expected to tighten early next decade, boosting prices, Cheniere said in its earnings report. "We are starting to see a light at the end of the short-term pricing tunnel," CEO Jack Fusco said on a call with investors. LNG netbacks to the U.S. Henry Hub from international markets have decreased dramatically this year, averaging just over \$1 per million Btu in the second quarter, a 77 percent drop from last year, S&P Global Platts Analytics estimated.

Cheniere has brought five trains online at its Sabine Pass terminal in Louisiana and is building a sixth. It has two trains in operation at its export facility near Corpus Christi, Texas, and is building a third. A midscale liquefaction expansion is planned in Texas. The company hopes to make a final investment decision during the first half of next year on the midscale project, Fusco said. The global LNG supply glut is expected to continue in the months ahead as new terminals and liquefaction trains in the U.S. come online.

Pakistan arrests former official after LNG contract investigation

(Arab News; Pakistan edition; Aug. 8) - Pakistan's former Finance Minister Miftah Ismail was arrested Aug. 7 following investigations by the country's anti-corruption watchdog into a multibillion-dollar liquefied natural gas import contract with Qatar. Ismail was an adviser to former Prime Minister Nawaz Sharif in 2017 and later appointed federal minister for finance. He is considered a close aide of Shahid Khaqan Abbasi, the opposition Pakistan Muslim League-Nawaz (PML-N) vice president and former premier who finalized the 2015, 15-year deal with Qatar during his time as petroleum minister.

Abbasi was already being held by the National Accountability Bureau (NAB) in connection with the LNG contract, which the agency said will result in a loss of \$2 billion to the Pakistan treasury. "My client is innocent, as there is no evidence of corruption or embezzlement in the LNG deal against him," Haider Waheed, Ismail's lawyer, said after his client's pre-arrest bail was rejected. Waheed accused the NAB of "political victimization," saying the LNG deal was finalized before Ismail took charge of his office.

Sheikh Imran ul-Haque, former managing director of Pakistan State Oil, was also arrested on Aug. 7 in the case. Pakistan, a country of 208 million people, is running out

of domestic gas and has turned to LNG imports to alleviate chronic energy shortages that have hindered its economy and led to a decade of electricity blackouts. The country imports an average 500 million cubic feet of gas per day as LNG from Qatar at a price linked to crude oil — 1 million Btu of LNG at 13.37 percent of the price of a barrel of crude. Opponents of the deal have said Pakistan is paying too much for the gas.

Ichthys project offshore Australia running at 80 percent capacity

(Reuters; Aug. 8) - Japan's biggest oil and gas explorer Inpex said Aug. 8 that its Ichthys liquefied natural gas project in Australia is running at about 80 percent of full capacity, with 24 cargos shipped April through June despite a 15- to 20-day maintenance period in May. The company expects Ichthys to ship about seven to eight cargoes a month this year. The plant shipped its first cargo last October.

Ichthys was beset by cost overruns and delays. Inpex, which led the project, has not announced a final cost, though analysts have estimated it at up to \$40 billion. At full production, Ichthys could produce 8.9 million tonnes of LNG per year and up to 150,000 barrels a day of condensate and gas liquids. The gas field is offshore with an undersea pipeline moving the gas to an onshore liquefaction plant.

Conoco could be looking at selling its interest in Australia LNG plant

(Australian Financial Review; Aug. 8) - ConocoPhillips is thought to be mulling a potential sale of large natural gas assets in northern Australia that could bring about an overhaul in ownership of the 13-year-old Darwin LNG plant and Barossa offshore gas venture. While conversations are understood to be at a relatively early stage, sources said Conoco is considering a complete exit from the LNG plant and the gas field that is the leading candidate to supply Darwin once the existing Bayu-Undan field runs dry.

With the Barossa partners — Conoco, Australia's Santos and Korea's SK Group — targeting a go-ahead in early 2020 for development of the \$US5 billion project, any deal could occur within the next few months. A sale by Conoco could present an opportunity to overhaul the Darwin LNG plant's ownership to better align with the line-up of partners in the new gas source. Such a move is expected to attract the keen interest of Santos, Conoco's only partner in both the gas field and the single-train LNG plant, which likely would be eager to take over the role as operator of both properties.

Conoco, which recently sold its stake in the stalled Sunrise gas project in the nearby Timor Sea, owns 56.9 percent of the Darwin facility with capacity to make 3.7 million tonnes a year of LNG, and 37.5 percent of Barossa, about 200 miles north of Darwin. Any decision to pursue a sale could allow evening up the interests between the two

ventures, giving Eni, Inpex, JERA, and Tokyo Gas, which own stakes in Darwin LNG, a chance to get into Barossa. Conoco also holds a 37.5 percent stake in the much larger Australia Pacific LNG project in Queensland, which shipped its first cargo in 2016.

Occidental closes on purchase of Anadarko

(S&P Global Platts; Aug. 8) - Occidental Petroleum's \$55 billion acquisition of Anadarko Petroleum, which closed Aug. 8, will bolster Oxy's upstream position in the U.S. onshore, in the Permian Basin and the DJ Basins in Colorado, as well as add Anadarko's strong asset position in the offshore Gulf of Mexico. In addition, the acquisition is expected to enhance Occidental's existing U.S. businesses in chemicals and the midstream, and internationally in Oman.

Occidental won a bidding war with Chevron for Anadarko in early May after Total agreed to buy Anadarko's oil and gas assets in Africa from Occidental post-merger for \$8.8 billion, helping Occidental reduce its debt.

In June, Anadarko and its partners in Mozambique's Offshore Area 1 development reached a final investment decision on the Mozambique LNG project with production expected to start-up around 2024. With the completion of the deal, Total will replace Anadarko as leader of the consortium. Area 1 contains more than 60 trillion cubic feet of gas resources, of which 18 tcf will be developed with the first two-train project.

Oregon sheriff's office has been monitoring LNG opponents

(Oregon Public Broadcasting; Aug. 8) - Law enforcement in Southwest Oregon have for several years been monitoring activists fighting the proposed Jordan Cove liquefied natural gas project, according to the Coos County sheriff's office. Calgary-based Pembina wants to build a 230-mile pipeline across the southern part of the state and LNG export terminal at Coos Bay. Opponents include property rights advocates, climate change activists, tribes, and others concerned about risks in the event of a disaster.

Law enforcement monitoring of the groups and the sharing of that information between federal, state, and local agencies first came to light Aug. 8 in a story published in The Guardian. Oregon Public Broadcasting has confirmed the monitoring was conducted by the Coos County sheriff's office and that the information was shared with the South Western Oregon Joint Task Force, a group formed by the sheriff's office.

One of the groups tracked was Southern Oregon Rising Tide, a direct-action climate activist group. "It's unfortunately not a total surprise," said Josephine County SORT member Grace Warner. "We knew already that [the Coos County sheriff's office] was

receiving funding from the pipeline company." A spokesperson for the sheriff's office acknowledged that to be the case. The contract between Jordan Cove and the sheriff's office to provide security for the project has been in place since 2016.

Sheriff Capt. Gabe Fabrizio downplayed the monitoring, characterizing it as "passive." He said the sheriff's office sends officers to local anti-Jordan Cove protests and rallies "only if there's a safety concern." He added, "We're not monitoring specific groups or people unless they show potential for being an issue for the county and the citizens."

Gas pipeline agreement requires First Nations to deter opposition

(CBC News; Canada; Aug. 9) - Community members and legal experts are concerned about provisions in a signed benefits agreement between a B.C. First Nation and a pipeline company that asks tribal leadership to dissuade their community members from speaking out against the project. The provision is in an agreement between Nak'azdli Whut'en, a First Nation about two hours northwest of Prince George, and TC Energy's Coastal GasLink pipeline, which will serve the LNG Canada project in Kitimat, B.C.

Coastal GasLink often promotes the fact it has signed agreements with the elected leadership of twenty First Nations along the proposed pipeline route as evidence of support for its project. But the specifics of these individual agreements have been kept out of the public eye. Among the benefits to Nak'azdli in the leaked agreement are education and training, contracting and employment opportunities, annual legacy payments over the lifetime of the pipeline, and "general project payments" to be paid in three installments.

There's also a condition that the band will "take all reasonable actions" to dissuade its members from anything that could "impede, hinder, frustrate, delay, stop, or interfere with the project, the project's contractors, any authorizations or any approval process." That includes dissuading band members from taking part "in any media or social media campaign." The provision concerns some in the community and legal experts, who say such terms are becoming the norm in contracts put before First Nations by developers.

Prices recovering for Western Canadian crude

(Bloomberg; Aug. 8) - Alberta's oil production curbs finally appear to be draining inventories, at least for now. Crude supplies in Western Canada fell by 2.75 million barrels last month to the lowest since November 2017, Genscape said Aug. 7. The decline is welcome news for the province, which has been struggling to set production limits at a level that would shrink inventories by making oil cheap enough to stimulate exports by rail, but not so cheap that prices collapse, as happened last year.

Crude-by-rail exports have picked up, rising in June to the highest monthly average since January, according to Genscape. Oil sands producer Cenovus Energy said last month it was "on track" to ramp up crude-by-rail shipments to 100,000 barrels a day by year-end, while Canadian Pacific Railway expects crude-by-rail shipments to rise 20 percent this quarter versus the last. Pipeline companies are also finding ways to add some extra capacity to existing pipelines by adding chemical agents to boost the flow.

The price for heavy Western Canadian Select was about \$14 per barrel less than the U.S. benchmark West Texas Intermediate on Aug. 8, a big improvement from the \$40 price gap suffered by Canadian producers last fall when oversupply and limited takeaway capacity cut deeply into the value of Canadian crude.

New pipelines cut their rates to attract Permian shippers

(Reuters; Aug. 8) - The operators of two new pipelines in West Texas shale fields are offering discounted prices to attract shippers to move oil to export hubs, according to the pipeline companies and federal filings. The bargain rates, in one case half the initial published rate, will aid strapped producers that once had to sell their oil for about \$10 less per barrel because of transport constraints to move their oil from the largest shale oil field in the country.

Pipeline companies, which have in the past year raced to add new capacity to flow oil from the Permian Basin to the refining and export hub on U.S. Gulf Coast, will face pressure to cut rates in coming weeks, said oil traders and analysts. The two operators — EPIC Midstream and Plains All American — are opening new lines that combined will be able to carry about 1.6 million barrels of oil per day from West Texas to the Gulf Coast. A 900,000-barrel-per-day line being developed by Phillips 66 will open later this year, boosting total capacity from the region by two-thirds.

Rates for most Permian pipelines have ranged between \$4 and \$7 a barrel for the past year because of soaring shale output and a lack of pipeline space. Some companies have turned to railcars for transport, which can cost \$6 to \$8 a barrel. EPIC halved its spot rate to \$2.50 a barrel on its pipeline from the Permian before it ever loaded oil into the 400,000-barrel-a-day line. "Spot rates are going to be pretty cutthroat with really low tariffs, given all this extra capacity," said Matthew Blair, an analyst at Tudor Pickering.