

CABLE AND TV GIANTS BECOME JOINT-VENTURE PARTNERS IN BLOCKGRAPH, WHICH WAS SPUN OFF BY COMCAST

Comcast, Charter and ViacomCBS Join Forces to Make TV Commercials More Targeted

WASHINGTON

Three of the nation's largest pay-TV companies are taking joint ownership of a platform designed to make it easier for brands to harness data to serve targeted ads to people watching cable TV, a move that comes as cost-pressured ad buyers are increasingly turning to targeted advertising.

Comcast Corp. CMCSA -1.31% is spinning off its Blockgraph LLC unit and selling two-thirds of it to Charter Communications Inc. CHTR +0.52% and ViacomCBS Inc. VIAC -3.58% in an effort to give greater scale to ad buyers relying on the platform. Each company will own one-third of Blockgraph as a result of the deal, which the three partners were expected to announce Friday. Financial terms weren't disclosed.

Targeted advertising—serving specific ads to specific viewers based on their interests, demographics and consumption habits—has been widespread on websites and online-video services for years, but is still in its infancy when it comes to traditional TV, where advertisers have fewer opportunities to gather information about viewers consuming TV from a living-room set-top box than they would from a smartphone or a computer.

Blockgraph acts as a service that helps brands and ad-inventory sellers match data sets without sharing too much personal data on the viewers, the company says. For instance, if a car maker buys a data set of people in the market for a car, it could use Blockgraph's technology to match that list up with cable subscribers based on their home address, Blockgraph Chief Executive Jason Manningham said. The car company could use this data either to

learn which programs and time of day draw more viewers from their desired audience, or to buy ads targeted only at households on the in-market list.

"For the ad buyer, it's really about scale and simplicity," Mr. Manningham said. As a joint venture, Blockgraph provides "a massive scale of inventory that can now be unlocked."

Privacy restrictions have served as an obstacle to the growth of targeted TV advertising because data matches often rely on personally-identifying data such as viewers' home address.

Comcast and Charter are the country's two largest cable companies, accounting for nearly half of U.S. TV and broadband households, and ViacomCBS is one of the largest owners of cable and broadcast channels.

The joint venture is launching at a precarious moment in the TV ad market, when the coronavirus pandemic has many brands cutting their marketing budgets and thinking more strategically about ad placements. The pandemic has prompted marketers to walk back their planned TV advertising commitments and think more strategically about advertising expenditures.

BY PATIENCE HAGGIN



PHOTO: ISTOCK



An oil facility in West Texas in 2018. Producers shut off nearly one million barrels a day of production in the Permian Basin this month. PHOTO: NICK OXFORD/REUTERS

Coronavirus Threatens to Hobble the U.S. Shale-Oil Boom for Years

DRILLERS THAT SURVIVE PANDEMIC ARE LIKELY TO BE LEANER AND LESS INCLINED TO INVEST FREELY IN GROWTH

WASHINGTON

American shale drillers helped turn the U.S. into the world's top oil producer, topping 13 million barrels a day earlier this year. It likely will be years—if ever—before they reach such heights again.

That is the growing view among top oil and natural-gas executives and experts, who say the coronavirus pandemic is

going to thin the ranks of shale companies and leave survivors that are smaller, leaner and less able to pursue growth at any cost.

Shale companies led a renaissance of American oil production, helping to more than double output over the past decade. That propelled the U.S. past Saudi Arabia and Russia and made the country an important competitor in the geopolitics of energy and global markets.

But before the new coronavirus sapped global demand for crude, causing shale-drilling companies to shut off wells en masse to avoid losing money, many were struggling to turn a profit, and investors had soured

on the sector, restricting companies' access to capital.

While oil prices have rebounded in recent days and are above \$33 a barrel, U.S. output is still poised to fall because companies aren't drilling enough wells to make up for production declines from existing wells. Shale wells produce a lot of oil and gas early on, but quickly lose steam. Without investing in new wells, many companies' output would decline by 30% to 50% in just a year, research firm Wood Mackenzie says.

Shale-oil companies have sharply reduced their drilling budgets for the year, with the top 15 by market capitalization

INVESTORS ARE POURING MONEY INTO GOLD AS A HEDGE AGAINST INFLATION ON CONCERNS THAT STIMULUS MEASURES WILL LEAD TO A SURGE IN PRICES

Is Inflation Dead? Some Investors Bet It Could Roar Back

WASHINGTON

Hedge funds are betting that inflation will pick up as central banks and governments worldwide print and spend vast amounts of money to support jobs and businesses hit by the coronavirus pandemic.

That bet goes against the weight of recent history.

Gold, a classic inflation hedge, has surged 14% this year as investors fret that central banks will print a lot of money, debasing its

value. Other indicators, such as long-term government bond yields, show no sign of concern.

This, in some ways, is one of the most important trades in markets. Much of the developed world has grown accustomed to lower inflation since the early 1980s, and muted levels over the past decade.

Plenty of investors have worried about inflation leaping since central banks began flooding markets with easy money

following the 2008-09 financial crisis. They have been proven wrong. But if this year's wave of stimulus measures—more aggressive and sweeping in scope—precipitate a sharp increase in the price of goods, financial markets may well be turned inside out.

Persistently high inflation can erode profits for companies that struggle to pass on price increases to customers, and leave consumers with less purchasing

power if wages don't keep pace. That could prove a mixed bag for stocks, and horrific for bonds, which would lose value given their currently low payouts.

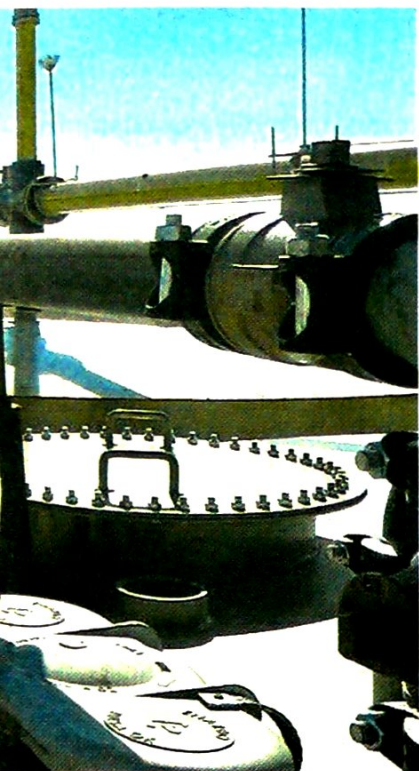
Inflation is unpredictable, and plays out in unpredictable ways.

"There's a whole cauldron of factors that will influence where prices go," said Jane Foley, head of foreign-exchange strategy at Rabobank. Behind the new coronavirus, there are still trade wars of the last few years to be settled and a push among some politicians to bring more manufacturing home, she said.

Bond markets have shown little concern about inflation for years, and central banks have struggled to generate any. Some indicators suggest there isn't much worry now about a sudden surge in prices.

The average inflation for the next decade in the U.S., as implied by the gap between yields on the 10-year inflation-linked and 10-year Treasury notes, was 1.19% Friday. In the euro area, the same measure was 0.5%, using a 10-year inflation-linked German bund, according to data from Refinitiv. Inflation expectations in the U.S. swap market, where people hedge their exposure to price changes, was 1.3%. It was 0.7% in the euro area by the same measure.

The gold market suggests something different: Prices began surging in mid-March, when the Federal Reserve launched a string of programs to boost markets and support the economy. The metal is viewed both as a haven asset and what investors call a real asset, something physical that is

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nearly one million barrels a day of production this month in the Permian Basin of West Texas and New Mexico. In North Dakota's Bakken Shale, producers cut about 500,000 barrels a day from February to mid-May, state regulators said.

The question is whether the companies ever return to their production highs. The Energy Department now expects U.S. oil production to slide to about 10.8 million barrels a day early next year, down from its January forecast of 13.5 million daily by that time.

Daniel Yergin, vice chairman of IHS Markit, expects U.S. oil output to bottom around nine million barrels a day next summer, before eventually returning to about 11 million barrels a day.

"February was peak shale," Mr. Yergin said.

He and others say that, even when the industry recovers, the pace of growth is unlikely to match the frenetic boom of recent years, largely because the industry's relationship with Wall Street has deteriorated after years of poor returns.

Large public U.S. producers poured a total of \$1.18 trillion into drilling and pumping oil over the past decade, largely in shale plays. But they came up well short of making their money back, collectively bringing in \$819 billion in cash from their oil operations, according to Evercore ISI.

That contributed to investor disillusionment with the industry. Last year, U.S. producers raised about \$23 billion in debt and equity financing, less than half of the roughly \$57 billion they received in 2016, when the industry was emerging from its most recent oil-price downturn, according to Dealogic.

Some sizable U.S. drillers, including Whiting Petroleum Corp. WLL -9.72% and Ultra Petroleum Corp., UPLCQ -1.96% have filed for bankruptcy, while Oasis Petroleum Inc. OAS +0.90% and shale-drilling trailblazer Chesapeake Energy Corp. CHK -0.90% have warned they might not be able to stay in business. Fitch Ratings Inc. said the default rate among high-yield U.S. exploration and

production companies could reach 25% in 2020, the highest since March 2017.

The recent rebound in oil prices alleviates some pressure on drillers, but isn't enough for most new wells to be profitable.

"They were in trouble in a \$50 oil environment," said Lance Taylor, president and CEO of private oil producer Steward Energy II. "Thirty dollars doesn't fix anything."

Investors are less inclined to recapitalize companies for growth, preferring they return cash to shareholders, said activist investor Ben Dell, a managing partner at Kimmeridge Energy Management Co.

Many that can't raise equity will use their cash flows to repair balance sheets, leaving only a handful of companies able to grow, said Scott Sheffield, chief executive of Pioneer Natural Resources Co., which has cut its annual capital budget 55%. Even in a recovery, Mr. Sheffield said his company wouldn't boost production growth but instead would return more money to shareholders.

Amy Myers Jaffe, a senior fellow for energy at the Council on Foreign Relations, said disruptions in oil investment and output elsewhere in the world could create an opening for shale producers to resume their production peaks.

"The crux of the matter is that it's going to be difficult to restore vertical production in a lot of places in the world, but the shale will be easier to restore, and that gives it an edge," Ms. Jaffe said.

Either way, shale companies that emerge from this downturn are likely to act differently than the growth-obsessed frackers of recent years.

"It is going to accelerate what was happening and what investors were demanding, which is shifting from a grow-it-and-flip-it model to something more sustainable," said Matt Adams, a portfolio manager for Franklin Templeton, which has about \$600 billion in assets under management. "We'll have a smaller, more rationalized sector."

BY COLLIN EATON AND REBECCA ELLIOTT

FUNDING ROUND LED BY SOFTBANK GROUP'S VISION FUND 2

China's Didi Raises More Than \$500 Million for Self-Driving Tech

WASHINGTON

Chinese ride-hailing giant Didi Chuxing Technology Co. raised more than \$500 million in a funding round led by SoftBank Group Corp. 9984 0.10% for its autonomous-driving subsidiary, the company said Friday, as it competes with well-backed U.S. startups over self-driving technology.

The fresh boost in capital led by SoftBank's Vision Fund 2, the successor to the Japanese tech investor's \$100 billion Vision Fund, will be used to test, develop and deploy Didi's autonomous-driving technology, Didi said. The company is also planning to work with auto-industry partners to mass-produce self-driving cars.

Didi, which spun off its self-driving division last August, faces a number of heavyweight rivals in the U.S., where funding is consolidating around a few star players, including Waymo LLC, the driverless car unit of Alphabet Inc., and Argo AI LLC, backed by Ford Motor Co.

Earlier this month, Waymo announced \$750 million in fresh capital, while Argo AI is expecting a \$2.6 billion investment from Volkswagen AG to close this summer. Another well-funded industry leader, General Motors Co.-backed Cruise, has raised more than \$7 billion. Amazon.com Inc. too has invested heavily in driverless vehicle technology and is in talks to buy Zoox Inc., which is working to develop the hardware and software needed to create electric-powered robot taxis.

Didi's latest round of funding also comes as the company emerges from China's coronavirus lockdown, with traffic and business picking up nationwide. But Didi's ride volume is still only 60% to 70% of its previous levels, a person familiar with the company said recently.

Didi is the biggest investment made by SoftBank's first Vision



PHOTO: QILAI SHEN/BLOOMBERG NEWS

Fund, which has poured around \$12 billion into the company for a 20% stake. That makes the fate of Didi hugely important to SoftBank—especially since the fund has been struggling recently as the coronavirus pandemic pumels investments that many had seen as already overpriced.

SoftBank started Vision Fund 2, a successor to its \$100 billion Vision Fund, at the end of last year. Initially, it was also planned to be a hundred-billion-dollar pool of capital. But those plans fell apart during the second half of last year, as investors turned wary of the kind of fast-growing, heavy-spending startups the Vision Fund was backing.

Since then, SoftBank has been funding Vision Fund 2 with its own money and investing on a much smaller scale than the billion-dollar checks it often wrote from the first Vision Fund.

Currently, Didi has open-road testing licenses in California, as well as in several cities in China. It also plans to start piloting a robotaxi service in Shanghai, where users will be able to hail autonomous vehicles through the company's ride-hailing app.

Didi first began developing and testing self-driving vehicles in 2016 and opened its main U.S. research facility in Mountain View, Calif., in 2017 to focus on developing artificial intelligence, including autonomous driving.

BY EVA XIAO

slashing spending by an average of 48%, a Wall Street Journal review of company disclosures found. Forty-six independent U.S. producers planned a combined \$38 billion in capital investments this year, the lowest dollar amount since 2004, according to Cowen.

"We believe there's going to be significantly less capital invested in growth in the U.S.," said Bill Thomas, chief executive officer of leading shale driller EOG Resources Inc., EOG -2.88% which has reduced its capital budget 46% for the year. It is unlikely U.S. production will reach previous levels in the next several years, he added.

Since mid-March, operators have idled almost two-thirds of the U.S. rigs that had been drilling for oil, bringing the nation's oil-rig count to the lowest since July 2009, according to services firm Baker Hughes Co. BKR -1.40% That all but ensures U.S. production is going to fall, even if companies decide to restart existing wells sooner than expected.

U.S. oil output fell to 11.5 million barrels a day in mid-May, according to the Energy Department, after companies turned off wells. Some estimate production has already sunk lower.

Pipeline giant Plains All American Pipeline PAA -0.72% LP estimated producers shut off



PHOTO: MICHAELA HANDREK-REHLE/BLOOMBERG NEWS

Gold, a classic inflation hedge, has surged 14% this year.

judged to have intrinsic value in any economy.

Some well-known hedge-fund managers are placing bets on gold because of the perceived inflationary risks. London hedge-fund manager Crispin Odey has been

a longstanding critic of monetary easing and is buying gold as a hedge against inflation. New York-based Elliott Management Corp. has also pointed at central banks' money printing as a reason to buy gold, according to reports.

"All real assets will benefit from higher inflation, but gold is more than just a real asset, it is the monetary asset of choice," said Diego Parrilla, at Quadriga Asset Managers in Madrid, who manages a fund designed to perform best when most markets tumble. "In the battle of the currencies, gold will win."

His Quadriga Igneo fund owns gold and Treasury-inflation-protected securities to protect against inflation risks, alongside U.S. Treasuries and options on stocks or other assets. Mr. Parrilla believes inflation will return in the medium to long term because of excessive money being printed by central banks.

"The virus will go, but the liquidity will stay," he said.

Governments and central banks are getting closer to brea-

king long-held policy taboos, according to Alberto Gallo, head of macro strategies at fund manager Algebris Investments. He is worried about debt monetization, where central banks essentially finance government spending, and about savers being forced to accept negative real interest rates. These things are inflationary because they debase currencies.

"This is not about very high inflation, but about interest rates being far below inflation," Mr. Gallo said. "We want to own gold because if rates go negative in the U.S. as well, and you're paying to hold dollars, you might as well pay to hold gold, which has only a finite supply."

He is also buying hedges against higher-than-expected longer-dated inflation in the U.S., on concern that supply constr-

ints may push prices higher when demand recovers.

At the moment, most major economies are hurtling toward a sharp contraction in activity, with a spike in unemployment and plunge in spending levels. U.S. consumer prices have dropped by the most since the last recession as restrictions on work and social activity disrupts demand for energy, travel, clothing and services.

Once the lockdown ends and people return to stores, there may be less capacity to meet the revival in demand, with companies failing and business investment collapsing.

Much depends on how and when Covid-19 is controlled, and that makes predicting inflation harder than usual.

BY ANNA ISAAC AND PAUL J. DAVIES