MORNING BRIEFING
May 1, 2023

China, Energy & CO2

Check out the accompanying chart collection.

Executive Summary: China's President Xi has been pursuing an ambitious agenda for the nation, brazenly at that. Jackie reports on measures China has taken to step into the limelight on the world stage, beef up its military might, tighten its grip over multinationals operating there, and get its currency into global circulation. … Also: Energy markets are sending mixed signals, clouding the forecast. For the oil industry, tumbling earnings and revenues consensus expectations may be off the mark if optimistic oil price forecasts pan out. … And in our Disruptive Technologies segment: Expect to see more companies capturing their carbon—and attractive tax credits.

YRI Weekly Webcast. Join Dr. Ed's live webcast with Q&A on Mondays at 11 a.m. EST. You will receive an email with the link one hour before showtime. Replays of the weekly webcasts are available *here*.

China: *Über Alles*? China's growing military might and influence over Russia and OPEC are allowing the country to throw its weight around on the world stage with impunity.

Russia is indebted to China for supplying it with technology and supporting President Vladimir Putin's invasion of Ukraine. The OPEC nations are likely eager to please their largest customer. Domestically, China's President Xi Jinping has solidified his power with a third term. Throw in a military force that's second only to the US military, and China's recent aggression is no surprise.

China's military has become increasingly hostile, taunting Taiwan by flying its military aircraft and sailing its ships nearby. China has grown more aggressive in the business world, questioning the employees of Western businesses located in China and pushing to settle international trade in yuan instead of dollars. But ironically, the country is attempting to play the role of peacemaker in the Middle East and Ukraine. On April 20, Treasury Secretary Janet Yellen delivered a blunt *speech* calling out China's misbehavior on numerous fronts, yet indicating America's willingness to work with the country if it adheres to international rules.

Let's take a look at how China's growing influence is being felt around the world:

(1) *Pressing Taiwan.* For years, China has harassed Taiwan by sending aircraft into airspace near the country. Last week, the country may have taken its intimidation to a new level. Two Chinese drones flew around the perimeter of Taiwan at the same time that another 17 fighter jets "hovered" southwest of Taiwan, an April 28 *South China Morning Post* (*SCMP*) *article* reported.

The use of drones was described as a "low-cost strategy to break the self-ruled island's 24-nautical mile air defense identification zone." One drone was a long-endurance strike-and-reconnaissance drone, which can carry heavy weapons.

For three days in April, the Chinese Army held drills around Taiwan in response to Taiwan's President Tsai's meeting with House Speaker Kevin McCarthy (R-CA) in California. The exercises involved sending 91 warplanes into Taiwan's Air Defense Identification Zone, operating naval vessels in the waters around Taiwan, and simulating both precision strikes and sealing off the island, an April 10 *article* on The Hill reported.

Next week, Taiwanese business organizations are hosting the Taiwan-US Defense Industry Forum in Taiwan, providing a forum for companies from both countries to discuss cooperation. China wasn't pleased to hear of it. Taiwan's current leaders' "practice of bringing wolves into the home is repugnant and will only bring a deep disaster to Taiwanese compatriots," said China's defense ministry spokesperson, according to an April 27 Reuters *article*.

(2) *Economic aggression.* China has begun to respond to recent actions the US has taken against Chinese individuals and business. The US banned selling high-end semiconductor chip-making technology to China to keep the leading-edge technology out of the hands of China's military. US officials also have charged various Chinese nationals in the US with not disclosing their ties to China or spying for the country.

Now China appears to have retaliated by expanding "a version of its espionage law that placed tighter state control over a wider swath of data and digital activities. Foreign executives said they worry the new law … could criminalize an array of normal business activities such as gathering intelligence on local markets and business partners," an April 27 *WSJ* *article* explained.

Chinese authorities have gone after specific Western businesses as well. Last week, they questioned Boston-based Bain & Company's Shanghai employees. Bain said it is cooperating with authorities but declined to comment further, reported the *WSJ*. In March, Chinese authorities raided the Beijing offices of Mintz Group—a due diligence company based in Washington, DC—detaining all five staff members there. Following the raid, the office was shut. The same month, China detained a Japanese national who is an employee of Astellas Pharma, a Japanese drugmaker, on suspicion of espionage.

And in late March, China's cyberspace regulator said it would review products sold by Micron Technology to "prevent hidden risks and safeguard national security." Micron has said it will cooperate with the probe and that its operations in China are unaffected so far, an April 26 Reuters *article* reported.

(3) *Pushing for the yuan.* Along with China's desire to be more politically influential on the world stage, the country also wants its currency to be more widely used. China's trade with Russia is occurring in yuan, and 17% of Russia's foreign reserves are denominated in yuan. The yuan also has replaced the US dollar as the most traded currency in Russia.

China is pushing to settle its trades in oil and natural gas in yuan. China's CNOOC and France's TotalEnergies used yuan when they completed the first LNG (liquid natural gas) trade on the Shanghai Petroleum & Natural Gas Exchange in March, *reported* Oilprice.com on March 29. Saudi Arabia and Beijing are in talks to price some of the oil that China purchases from the Saudis in yuan. China purchases more than 25% of the oil that Saudi Arabia exports, according to a March 15, 2022 *WSJ* *article*. Argentina announced that it will pay in yuan, instead of dollars, for $1.04 billion of Chinese imports in April and $790 million a month after that. Brazil also has offered to trade with China in yuan.

"The proportion of yuan used in China's cross-border transactions rose to 48% in March from close to zero in 2010, while use of the US dollar has dropped from 83% to 47% during the same period," an April 27 *SCMP* *article* reported, citing Bloomberg data. The yuan has jumped 5.7% from its 2022 low, but that likely has more to do with China ending its Covid lockdown policies. The currency is still 8.9% off its 2022 highs (*Fig. 1*).

(4) *Playing peacemaker.* President Xi has kicked off his third term by becoming a global statesman. Xi recently held his first call with Ukrainian President Volodymyr Zelensky, advocating for peace between Ukraine and Russia. After the call, China's Foreign Ministry stated that it would send a special representative for Eurasian affairs to Ukraine and other countries for "in-depth communication with all parties on the political settlement of the Ukrainian crisis," an April 26 *WSJ* *article* reported.

It's hard to take this overture seriously given that a month earlier Xi visited Russia for three days. There, he noted that China's and Russia's "political mutual trust is deepening" and their "common interests are multiplying," a March 21 *WSJ* article reported. It was Xi's first trip since the start of his third term as president. So far, China has not supplied Russia with ammunition, but it reportedly has considered the option as well as sold the country microchips and other technology. Trade between the two countries has surged, with China's exports to Russia climbing to $9.0 billion in March, nearly double Q1-2021's $4.3 billion (*Fig. 2*).

The call with Zelensky came after a Chinese ambassador questioned the sovereignty of former Soviet states. His comments were quickly dismissed as his own opinion versus that of China, but they caused a stir nonetheless.

It's unlikely that China would put itself in the middle of the Russia/Ukraine war unless it thought it could negotiate an agreement between the two parties that would reflect well on China. China recently enjoyed successfully negotiating a deal that reinstated the diplomatic ties between Iran and Saudi Arabia. However, China has less control over Russia and Ukraine than it has over the two Middle Eastern countries given that China is a large consumer of their oil.

(5) *Bolstering military might.* The US military forces eclipse those of China, but the latter country is quickly expanding and modernizing its military into a force that it believes will rival the US's military by 2050. According to official figures, the country is expected to increase military spending by 7.2% this year to $225 billion, far less than the roughly $800 billion the US is expected to spend. However, official Chinese data are thought to understate the amount actually spent on the military.

With its pockets full, China has been "upgrading its weapons and equipment, improving its logistics and transportation capabilities and enhancing its cyber and space capabilities," a March 6 *article* in *The Times of India* reported. China has been investing in military applications for artificial intelligence and quantum computing. The country has expanded its navy, developing new aircraft carriers and submarines that have allowed it to flex its muscle further into the Indo-Pacific region. And it has been building military bases around the world, using them for logistics and support, the article reported.

Here's a snapshot of the US and China military capabilities included in *The Times of India* article: active personnel (1.4 million US, 2 million China), reserve personnel (442,000, 510,000), paramilitary force (0, 625,000), aircraft (13,300, 3,284), tanks (5,500, 4,950), armored vehicles (303,553, 174,300), aircraft carriers (11, 2), helicopter carriers (9, 3), submarines (68, 78), and small warships (22, 72).

Last month, *60 Minutes* ran an in-depth *segment* about US naval power relative to the US. The upshot: The US has a larger naval force, but China is catching up quickly, and it's growing more aggressive in the Western Pacific. In the air, the US and China are in a race to develop sixth-generation fighter jets. The peace dividend from the end of the Cold War with Russia is officially being spent—and then some.

Energy: Divided Opinions. With oil and natural gas prices down sharply from their 2022 highs, investors and industry analysts have differing opinions about the future. Stock investors have bid up the shares despite analysts' dour earnings projections. Let's take a look at the S&P 500 Integrated Oil & Gas industry as well as one of its largest members:

(1) *Have earnings peaked?* On Friday, ExxonMobil reported earnings that were mixed. Adjusted earnings per share were up 37.7% from those of last year's Q1, but they were 16.8% below Q4 results. The difference is largely because the price of Brent oil has fallen 38.8% since it peaked in March 2022 and the price of natural gas is 75.1% below its August 2022 peak (*Fig. 3* and *Fig. 4*).

ExxonMobil shares gained 1.5% after the company reported earnings on Friday. The gain brought the shares' one-year advance to 38.8%, trouncing the S&P 500's 0.9% one-year gain. Even though Exxon shares are near their record high, analysts are decidedly negative about the oil giant's earnings prospects. Analysts are forecasting that earnings per share will decline from last year's $13.26 to $10.18 this year and $9.64 in 2024. And the estimates have been getting trimmed in recent months, according to *WSJ* data. Three months ago, Exxon was expected to earn $10.61 a share this year and $9.85 next year.

(2) *Mixed messages about the industry too.* A similar pattern is found when looking at the S&P Integrated Oil & Gas industry, of which Exxon, Chevron, and Occidental Petroleum are members. The industry's stock price index is near its 2022 peak even though analysts collectively are not very optimistic about the industry's earnings power this year (*Fig. 5*). Their consensus estimates suggest that the S&P 500 Integrated Oil & Gas industry's revenue is expected to tumble 12.3% this year and another 1.4% in 2024 (*Fig. 6*). Expectations for earnings follow a similar path; they're forecast to tumble 27.9% this year and 0.1% next year (*Fig. 7*).

The negativity conveyed by the consensus estimates contrasts with optimism of Pioneer Natural Resources' incoming CEO Rich Dealy. He believes that oil demand will continue to increase this year, sending crude oil prices up to $80-$100 a barrel later this year, according to an April 28 Bloomberg *article*. The shale driller was reportedly in preliminary talks to be acquired by ExxonMobil, according to an April 7 *WSJ* *report*.

Energy companies have done a masterful job at remaining profitable even when oil prices fall, in part because they've been able to produce far more energy using far fewer rigs than in the past. In October 2014, there were 1,609 rigs in operation industrywide at the peak. Oil production peaked shortly thereafter at 9.6 mbd. Today, there are only 591 rigs employed, but 12.2 mbd of oil are being produced (*Fig. 8*).

Disruptive Technologies: Capturing Carbon. One of the items highlighted in ExxonMobil's latest earnings press release is a recently struck long-term agreement to transport and permanently store up to 2.2 million metric tons of carbon dioxide each year from Linde's new clean hydrogen production facility in Beaumont Texas. Linde, an industrial gases and engineering company, expects operations to begin in 2025. If its goals are achieved, the amount of CO2 stored each year will equal the emissions of nearly half a million cars.

This deal follows one struck last October between Exxon and CF Industries, a manufacturer of hydrogen and nitrogen products. CF is spending $200 million to build a CO2 dehydration and compression unit at its ammonia facilities in Donaldsonville, Louisiana. Starting in 2025, Exxon will store up to two million metric tons of the captured CO2 annually in secure geologic storage it owns in Louisiana, a company *press release* states.

We can expect to see more of these deals thanks to the Inflation Reduction Act, reported an excellent *article* in *Barron's* on April 29. The legislation boosts the existing tax credit for capturing carbon from the current $50 per tonne of CO2 captured to $85 per tonne if the CO2 is buried underground. The credit is increased to $60 if the CO2 is used to enhance the amount of oil recovered from wells. The larger tax credit now covers the cost of capturing carbon dioxide from many industrial plants, including most power, cement, iron, steel, hydrogen, and ammonia plants.

Some projects may be held up if they are unable to get the permits necessary to build pipelines to transport the CO2 in situations where pipelines don't already exist. But if that hurdle can be overcome, then expect to see the many carbon capture projects in various stages of development come to market. The amount of CO2 captured annually could surge from less than 50 million tonnes last year to more than 250 million tonnes by 2030, according to data from the International Energy Agency quoted in the *Barron's* article.

Calendars

US: Mon: ISM & M-PMI & Price Index 46.7/49.0; S&P Global M-P MI 50.4; Construction Spending 0.1%. **Tues:** Job Openings 9.68m; Factory Orders 1.3%; API Weekly Crude Oil Inventories. (Bloomberg estimates)

Global: Mon: Japan Household Confidence 34.7. **Tues:** Eurozone Headline & Core CPI Flash Estimates; 0.9%m/m/7.0%y/y & 1.1%m/m/5.7%y/y; Eurozone, Germany, France, Italy, and Spain M-PMIs 45.5/44.0/45.5/49.0/49.0; Germany Retail Sales 0.4%; UK M-PMI 46.6; Italy CPI -0.1%m/m/7.8%y/y; Italy PPI; UK Nationwide HPI -0.3%m/m/-3.6%y/y; Australia Retail Sales; RBA Interest Rate Decision 3.60%; Enria; Lowe. (Bloomberg estimates)

Strategy Indicators

Global Stock Markets Performance (*link*): The US MSCI index rose 0.7% last week and moved further away from a bear market to a 14.5% correction from its record high on December 27, 2021. The US MSCI ranked 15th of the 48 global stock markets that we follow in a week when 20 of the 48 countries rose in US dollar terms. The AC World ex-US index fell 0.2%, but also remained out of a bear market albeit at 15.8% below its June 15, 2021 record high. EM Eastern Europe was the best regional performer with a 2.1% gain, ahead of EMEA (0.5%), EM Latin America (0.0), and EAFE (-0.1). EM Asia was the worst performing region last week with a decline of 0.5%, followed by BIC (-0.3) and EMU (-0.2). Hungary was the best-performing country last week with a gain of 3.6%, followed by the Philippines (3.3), Chile (3.1), Poland (2.9), and India (2.8). Among the 23 countries that underperformed the AC World ex-US MSCI last week, the 7.9% decline for Turkey was the biggest, followed by Colombia (-6.7), Jordan (-2.9), Greece (-2.6), and the Czech Republic (-2.4). In April, the US MSCI ranked 27/48 as it rose 1.2%, slightly behind the 1.4% gain for the AC World ex-US index as 36 of the 48 countries moved higher. Poland was the best performer, with a gain of 13.5%, followed by Hungary (9.9), Pakistan (8.4), Indonesia (6.1), and the Czech Republic (5.8). The worst-performing countries in April: Jordan (-7.8), Turkey (-5.7), China (-5.2), and Taiwan (-4.3). Most regions rose in April, but EM Eastern Europe was the best performer with a gain of 11.6%, ahead of EMEA (4.8), EMU (2.6), EAFE (2.4), EM Latin America (1.6), and the AC World ex-US (1.4). EM Asia (-2.4) was April's worst-performing region, followed by BIC (-2.1). Looking at 2023's performance so far, the US

MSCI is up 8.5% as its ytd ranking rose one place w/w to 20/48. The AC World ex-US's ytd gain of 7.7% is now lagging the US again, with 34/48 countries now in positive territory. EMU is the best performer ytd, with a gain of 16.9%, followed by EM Eastern Europe (16.2) and EAFE (10.3). The regional laggards so far in 2023: BIC (-1.5), EM Asia (2.0), EMEA (2.1), and EM Latin America (4.8). This year's best ytd country performers: the Czech Republic (40.7), Ireland (23.9), Mexico (22.9), Greece (19.3), and France (19.2). Here are the worst-performing countries of the year so far: Pakistan (-19.6), Turkey (-16.1), Colombia (-10.4), Norway (-7.7), and Malaysia (-6.4).

S&P 500/400/600 Performance (*link*): Only one of these three indexes moved higher last week. LargeCap rose 0.9% w/w, ahead of the 0.3% and 1.0% declines for MidCap and SmallCap. By Friday's close, SmallCap was still in a bear market, while LargeCap and MidCap remained in a correction. LargeCap finished the week at 13.1% below its record high on January 3, 2022, MidCap at 14.4% below its record high on November 16, 2021, and SmallCap at 21.7% below its November 8, 2021 record high. Fifteen of the 33 LargeCap and SMidCap sectors moved higher for the week compared to 20 rising a week earlier. LargeCap Communication Services was the best performer with a gain of 3.8%, ahead of LargeCap Tech (2.4%), MidCap Consumer Staples (1.6), LargeCap Real Estate (1.4), and SmallCap Communication Services (1.3). Among the worst performers for the week were MidCap Tech (-3.9), SmallCap Utilities (-3.3), SmallCap Tech (-3.1), SmallCap Health Care (-2.7), and MidCap Utilities (-1.6). During April, LargeCap rose 1.5%, compared to the declines for MidCap (-0.9) and SmallCap (-2.9). Fifteen of the 33 sectors rose in April compared to 14 rising in March. April's best performers: LargeCap Communication Services (3.6), LargeCap Consumer Staples (3.4), MidCap Health Care (3.3), and LargeCap Energy (3.2). April's biggest laggards: SmallCap Tech (-9.4), MidCap Tech (-9.1), MidCap Materials (-3.8), and SmallCap Real Estate (-3.8). Looking at performances so far in 2023, LargeCap, with an 8.6% gain, remains well ahead of MidCap (2.5) and SmallCap (-0.8); 19 of the 33 sectors are higher ytd. The top sector performers in 2023: LargeCap Communication Services (24.5), LargeCap Tech (22.0), LargeCap Consumer Discretionary (14.6), SmallCap Consumer Discretionary (11.2), and SmallCap Communication Services (9.7). Here are 2023's biggest laggards: SmallCap Financials (-15.3), MidCap Energy (-11.3), SmallCap Energy (-10.9), SmallCap Real Estate (-8.3), and MidCap Financials (-7.6).

S&P 500 Sectors and Industries Performance (*link*): Six of the 11 sectors rose last week, and four outperformed the composite index's 0.9% gain. That compares to a 0.1% decline for the S&P 500 a week earlier, when six sectors rose and five outperformed the index. Communication Services was the best performer, with a gain of 3.8%, followed by Tech (2.4%), Real Estate (1.5), and Consumer Staples (1.1). Utilities was the worst performer, with a 1.0% decline, followed by Industrials (-0.6), Health Care (-0.6), Materials (-0.2), Financials (-0.2), Consumer Discretionary (0.2), Energy (0.3). The S&P 500 rose 1.5% in April as eight sectors moved higher and six outperformed the broader index. That compares to seven sectors rising and four outperforming the S&P 500's 3.5% gain in March. The leading sectors in April: Communication Services (3.6), Consumer Staples (3.4), Energy (3.2), Financials (3.0), Health Care (3.0), and Utilities (1.8). April's laggards: Industrials (-1.2), Consumer Discretionary (-1.0), Materials (-0.2), Tech (0.4), and Real Estate (0.8). Looking at 2023's performance so far, the S&P 500 is up 8.6% ytd, with just three sectors outperforming the index and seven now higher for the year. The best ytd performers: Communication Services (24.5), Tech (22.0), and Consumer Discretionary (14.6). These are 2023's worst performers: Financials (-3.2), Energy (-2.5), Utilities (-2.3), Health Care (-1.9), Industrials (1.8), Real Estate (1.9), Materials (3.6), and Consumer Staples (3.6).

S&P 500 Technical Indicators (*link*): The S&P 500 rose 0.9% last week and improved relative to its 50-day moving average (50-dma) and 200-day moving average (200-dma). The index was above its 50-dma for a fifth week and its 200-dma for a sixth week. It had been above its 200-dma for eight weeks through early March in its longest positive 200-dma streak since it was above for 81 straight weeks through January 2021. The S&P 500 improved to a 10-week high of 3.4% above its 50-dma from 2.5% above its 50-dma a week earlier and compares to a 20-week low of 3.6% below at the beginning of March. That also compares to a four-month low of 10.6% below at the end of September, a 23-month high of 8.7% above the index's rising 50-dma in early August, and a 27-month low of 11.1% below its falling 50-dma in mid-June. The index had been mostly trading above its 50-dma from late April 2020 to early April 2022; in June 2020, it was 11.7% above, which was the highest since its record high of 14.0% in May 2009. That compares to 27.7% below on March 23, 2020—its lowest reading since it was 29.7% below on Black Monday, October 19, 1987. The price index closed Friday at a 10-week high of 5.1% above its rising 200-dma, up from 4.3% a week earlier and compares to a nine-week low of 0.3% in early March. That also compares to a 13-month high of 5.1% above in early February. The S&P 500 is well above its 26-month low of 17.1% below its falling 200-dma in mid-June and compares to 10.8% above its rising 200-dma in November 2021. That also compares to 17.0% above in December 2020, which was the highest since November 2009 and up from the 26.6% below registered during the Great Virus Crisis on March 23, 2020—the lowest reading since March 2009. At its worst levels of the Great Financial Crisis, the S&P 500 index was 25.5% below its 50-dma on October 10, 2008 and 39.6% below its 200-dma on November 11, 2008. The 50-dma and 200-dma each moved higher for a sixth week, but the 200-dma has risen in just 11 of the past 50 weeks.

S&P 500 Sectors Technical Indicators (*link*): All 11 S&P 500 sectors are trading above their 50-dmas, up from nine sectors a week earlier. Financials and Real Estate moved above in the latest week to complete the sweep. Six sectors have a rising 50-dma, up from five a week earlier, as Energy reversed back into the rising 50-dma club. These five sectors still have a falling 50-dma: Consumer Discretionary, Financials, Industrials, Materials, and Real Estate. Looking at the more stable longer-term 200-dmas, the positive club slipped w/w to eight members from nine as Utilities moved below and rejoined Financials and Real Estate as the only members as the sectors trading below their 200-dmas. The rising 200-dma club dropped to eight members from nine a week earlier with removal of Consumer Discretionary. Real Estate and Utilities are the other two sectors with a falling 200-dma.

US Economic Indicators

GDP (*link*): Real GDP expanded a weaker-than-expected 1.1% (saar) during Q1, slowing from 2.6% and 3.2% the previous two quarters, as inventory investment slowed dramatically last quarter and declines in equipment spending and residential investment also dragged down growth. Meanwhile, *real consumer spending*, which accounts for just over two-thirds of GDP, accelerated 3.7% (saar) during Q1 from Q4's 1.0%, the best growth rate since Q2-2021, led by a 16.9% (saar) jump in *durable goods* expenditures—driven by a 45.3% surge in motor vehicles spending. Real *services* spending picked up to 2.3% (saar), led by a 5.7% (saar) increase in health care spending—consistent with its growth during H2-2022. Real *nondurable goods* consumption was subdued again last quarter, increasing 0.9% (saar), following a 0.6% gain during the final quarter of last year; spending had declined the first three quarters of 2022. Meanwhile, *real gross private domestic investment* contracted 12.5% (saar), after increasing 4.5% during Q4-2022, as real inventory investment showed a downturn, dropping $138.1 billion during Q1 (to -$1.6 billion from $136.5 billion). *Residential investment* contracted for the eighth consecutive quarter, falling 4.2% (saar) during Q1, slowing from double-digit declines the prior three quarters, while *nonresidential investment* expanded 0.7% (saar), slowing from 4.0% and 6.2% the prior two quarters. Within nonresidential investment, equipment spending contracted 7.3% (saar) after a 3.5% setback at the end of last year. Meanwhile, structures posted the first back-to-back quarterly gains since 2019, jumping 11.2% (saar) during Q1 following a 15.8% rebound during Q4; investment had declined for six successive quarters. Spending on intellectual property products increased 3.8% (saar), slowing steadily from Q1-2022's 10.8%; it hasn't posted a decline since Q2-2022 at the height of the pandemic. Turning to trade, *real net exports of goods & services* narrowed for the fourth straight quarter—to $1.24 trillion from a record high of $1.49 trillion a year ago—as exports rebounded 4.8% after declining 3.7% in Q4 and imports rose 2.9% after falling for two quarters. (Imports are subtracted in the calculation of GDP, so Q1 imports contributed negatively.) *Real government spending* advanced for the third successive quarter, accelerating 4.7% (saar) during Q1 from 3.8% and 3.7% the previous two quarters, as *federal* spending rose 7.8%, led by nondefense spending. *State & local* government expenditures increased 2.9% (saar) during Q1, following gains of 2.6% and 3.7% the prior three quarters, which followed three quarters of contraction.

Contributions to GDP Growth (*link*): *Consumer* spending (2.48ppts) was the biggest positive contributor to real GDP growth last quarter, led by durable goods (1.32) consumption—boosted by motor vehicles (1.06) —while services (1.03) consumption got a lift from health care (0.60). Meanwhile, nondurable goods (0.12) spending had little impact. *Government* spending (0.81) was the second biggest contributor, with both federal (0.49) and state & local (0.31) expenditures adding to the gain. *Trade* (0.11) also added to the top line, but not by much, as a negative contribution from imports (-0.43) offset most of the positive contribution from exports (0.54). Nonresidential (0.10) investment also had little impact, as gains in structures (0.29) and intellectual property products (0.20) spending were basically cancelled out by the continued decline in equipment (-0.39) spending. Meanwhile, inventory investment (-2.26) was a major drag on Q1 growth—all nonfarm (-2.36) —while residential investment (-0.17) was a minor drag.

Personal Income & Consumption (*link*): *Personal income* rose 0.3% again in March, slowing from the 0.6% gain at the start of this year—its 14th successive gain and up 7.1% over the period—as the wages & salaries component continues to set new record highs. *Wages & salaries* hasn't posted a decline since February 2021—soaring 19.9% over the 25-month period. Adjusted for inflation, wages & salaries rose for the eighth time in nine months in March by a total of 3.6%—to a new record high. *Personal consumption expenditures* also continued to set new record highs, up 0.1% in March and 6.2% y/y, led by services consumption, which climbed 0.4% and 8.0% over the comparable periods. In real terms, consumer spending in March was flat, after ticking down 0.2% from January's record high; it was 1.9% above a year ago, with services and goods consumption up 2.4% and 1.0% the past 12 months; the former was little changed at January's record high. Meanwhile, consumers are saving again, with personal saving climbing to $1.0 trillion in March, virtually doubling from June 2002's recent low of $506.3 billion, and the saving rate climbing from 2.7% to 5.1% over the comparable period.

Consumer Sentiment Index (*link*): "Despite the increasingly negative news on business conditions heard by consumers, their short- and long-run economic outlook improved modestly," notes Joanne Hsu, director of the survey. "These improvements were balanced by worsening assessments of personal finances due to higher expenses, reflecting the ongoing pain stemming from continued higher prices," she added. *Overall consumer sentiment* ticked up to 63.5 in April, after falling in March for the first time in four months, from a 13-month high of 67.0 in February to 62.0. The *present situation component* climbed to 68.2 in April after dropping from a 13-month high of 70.7 in February to 66.3 in March, while the *expectations component* rose to 60.5 after sliding from a 14-month high of 64.7 to 59.2 over the comparable periods. Turning to inflation, the *one-year expected inflation rate* jumped to a five-month high of 4.6% after slowing from 4.1% in February to 3.6% in March, which was the lowest since April 2021, remaining well above its 2.3%-3.0% range recorded during the two years prior to the pandemic. It peaked at 5.4% last March and April. The *five-year expected inflation rate* ticked up to 3.0% in April from 2.9% in each of the prior two months—remaining within the narrow 2.9%-3.1% range for 20 of the last 21 months.

Personal Consumption Deflator (*link*): March's PCED posted its smallest gain in eight months in March, ticking up 0.1%, slowing from gains of 0.3% and 0.6% the prior two months. Core prices increased 0.3% in March, following gains of 0.4% and 0.6% the previous two months. The yearly headline rate eased to a 22-month low of 4.2% from last June's 7.0% peak—which was the highest reading since the end of 1981. The yearly core rate eased back to 4.6% after picking up slightly from 4.6% to 4.7% in January and holding there in February. It peaked at 5.4% last February and March. On a *three-month annualized basis*, the core rate rose 4.8% (saar) in March, slowing from 5.1% in February, and only a couple of ticks above its 4.6% yearly rate. The three-month rate for durable goods was flat in March, not posting a three-month gain since October, while the three-month rate for core nondurable goods prices accelerated 10.2% (saar) from 1.0% during December and November. Meanwhile, services prices ex energy slowed to 5.3% (saar) during the three months through March, from just above 6.0% the prior two months. The three-month annual rate for consumer durable goods (0.0%, saar & 0.8% y/y) was just below its yearly rate, while the three-month rate for core nondurable goods (10.2 & 3.8) was nearly triple its yearly rate. Meanwhile, the three-month and yearly rates for services ex energy (5.3 & 5.4) were basically identical. *PCED components for which three-month rates lag yearly rates*: used motor vehicles (-22.1% & -9.5%), physician services (-0.6 & 1.0), alcoholic beverages purchased for off-premise consumptions (1.4 & 3.9), food & nonalcoholic beverages purchased for off-premise consumption (1.7 & 8.8), motor vehicles & parts (2.2 & 6.8), new motor vehicles (3.3 & 7.6), airfares (4.5 & 11.8), transportation services (6.2 & 10.7), personal care products (6.5 & 6.9), owner-occupied rent (7.5 & 8.1), and tenant rent (8.0 & 8.9). *PCED components for which three-month rates exceed yearly rates*: lodging away from home (29.2 & 6.9), professional & other services (10.2 & 5.2), tobacco (9.8 & 6.9), prescription drugs (9.1 & 2.7), sports & recreational vehicles (8.6 & 2.2), clothing & footwear

(6.8 & 2.1), recreation services (6.2 & 5.5), furniture & home furnishings (5.2 & 2.0), hospitals (4.1 & 2.7), video audio & information processing (3.2 & -2.8), and gasoline & other energy products (-9.6 & -20.0). *PCED components for which three-month rates & yearly rates are comparable*: education services (2.5 & 2.8) and household appliances (-7.6 & -7.5).

Employment Cost Index (*link*): The employment cost index (ECI), which is the broadest measure of US labor costs, eased during Q1, though rates remain elevated. The *overall ECI* in the private sector rose 1.2% (saar) during Q1, an uptick from the 1.1% increase the final two quarters of 2022 though slower than the 1.4% and 1.3% increases the first two quarters of last year. *Wages & salaries* increased 1.2% (saar) for the third straight quarter during Q1, slowing from 1.4% during Q2-2022, while benefits accelerated 1.1% (saar) during Q1, after slowing from 1.7% during Q1-2022 to 0.9% during the final half of the year. On a yearly percent change basis, *overall labor costs* for the private sector slowed for the third consecutive quarter since peaking at a recent high of 5.5% y/y during Q2-2022 (the highest since mid-1984) to 4.8% last quarter, with wages and salaries (to 5.1% from 5.7%) and benefits (4.3 from 5.2) both easing over the comparable periods. Meanwhile, the *Atlanta Fed's median wage growth tracker*, which tracks the ECI wages & salaries component closely, moved up to 6.4% y/y in March, based on the three-month average, after falling from 6.7% last summer to 6.1% by the end of the year and holding at that rate through February.

Regional M-PMIs (*link*): Five Fed districts (New York, Philadelphia, Dallas, Kansas City, and Richmond) now have reported on *manufacturing activity* for April, and collectively they show that growth declined for the 12th successive month. But activity has held in a relative flat trend averaging 12.7 the past four months in a range of -11.9 to -13.7. It improved slightly this month to -12.8 from -13.7. The New York (to +10.8 from -24.6) region showed a big swing in growth from negative to positive, while both the Philadelphia (-31.3 from -23.2), Dallas (-23.4 from -15.7), and Richmond (-10.0 from -5.0) regions showed steeper declines. Meanwhile, Kansas City's (-10.0 from 0.0) fell back into negative territory. *New orders* (-9.6 from -17.6) fell at a slower pace this month, as billings in the New York (+25.1 from -21.7) region rebounded sharply, while the Dallas (-9.6 from -14.3) and Philadelphia (-22.7 from -28.2) regions showed slower rates of decline. Richmond (-20.0 from -11.0) and Kansas City (-21.0 from -13.0) billings continued to contract at a fast pace. *Employment* (-0.2 from 0.6) is showing signs of stability, as hirings in the Philadelphia (-0.2 from -10.3) and Richmond (0.0 from -5.0) areas moved back up to the break-even point of zero. Meanwhile, factories in the Dallas (+8.0 from +10.4) region hired at a slower pace, while hirings in New York (-8.0 from -10.1) declined at a slower pace, and Kansas City's (-1.0 from 18.0) slipped into negative territory for the first time since mid-2020.

Regional Prices Paid & Received Measures (*link*): We now have April's prices-paid and -received data for the five Fed regions—New York, Philadelphia, Richmond, Dallas, and Kansas City. (Note: The New York, Philadelphia, Dallas, and Kansas City measures are diffusion indexes, while Richmond's measures are average annualized inflation rates—which we multiply by 10 for easier comparison to the other regional measures.) The *prices-paid* measure in April eased for the second month after a brief blip up in February (to 40.3), falling to 33.7 this month, the lowest since November 2020; it peaked at a record high of 90.2 during September 2021. The Philadelphia (8.2 from 23.5) measure slowed dramatically to its lowest percentage since mid-2020, while Dallas' (19.5 from 20.3) eased to a 33-month low, and New York's (33.0 from 41.9) saw price pressures ease back to January's 26-month low of 33.0 after a slight tightening in February. Meanwhile, Richmond's (75.7 from 62.4) accelerated after slowing to a two-year low last month, while Kansas City's (32.0 from 30.0) accelerated the first four months of this year, after falling to 18.0 in December—which was the lowest since summer 2020. Here are the record highs by region and date: Philadelphia's (91.1, March 1974), Dallas (84.1 November 2021), New York (86.4, April 2022), Richmond (150.1, May 2022), and Kansas City (84.0, May & October 2021). Turning to the *prices-received* measure, it eased for the fifth month, from 39.0 in November to a 27-month low of 21.2 in April; it was at a record high of 59.0 last March. Prices-received indexes were mixed: New York's ticked up to 23.7 after easing to 22.9 in March, remaining above January's two-year low of 18.8, while Dallas' inched up to 8.4 this month after easing to a 28-month low of 7.0 in March. Kansas City's (21.0 from 13.0) measure bounced off March's 38-month low. The Philadelphia (-3.3 from 7.9) measure moved down for the third month from 29.9 at the start of the year. Richmond's (56.2 from 55.9) barely budged for the second month, averaging 55.9 the past three months. Here are the record highs by region and date: New York (56.1, March 2022), Dallas (51.3, October 2021), Kansas City (60.0, August 2021), Philadelphia (65.8, November 2021), and Richmond (103.1, June 2022).

Global Economic Indicators

Eurozone Economic Sentiment Indicators (*link*): The recent move up in the Economic Sentiment Indexes (ESI) for both the EU and Eurozone has stalled, with both basically moving sideways the past three months. The *EU's* measure was flat at 97.3 in April, after increasing 4.9 points from October's 92.9 to 97.8 in January, while the *Eurozone's* gauge edged up 0.1 point to 99.3 in April, after falling 0.5 point during two months through March to 99.2; it had climbed from 93.8 during October to 99.7 by January. ESIs among the *six* *largest EU economies* were a mixed bag in April, with sentiment in Spain (+3.7 to 103.6), Poland (+1.1 to 91.5), Germany (+0.8 to 98.7), and Italy (+0.3 to 104.9) moving higher, while sentiment in the Netherlands (-1.6 to 96.5) and France (-4.2 to 93.3) deteriorated. They were at 101.7, 90.2, 98.0, 102.7, 94.5, and 98.4, respectively, at the start of the year. *By sector*, consumer confidence in the overall EU hasn't posted a decline since sinking to a record low of -29.8 last September, rebounding 10.9 points during the seven months through April to -18.9. Retail trade confidence climbed 5.6 points over the same seven-month period, from a recent low of -7.0 in September to -1.4 in April. Industrial confidence remains in a freefall since reaching a record high of 12.9 in December 2021, dropping to -3.5 this April, while construction confidence deteriorated to -2.2 in April from a record high of 8.4 at the end of 2021. Meanwhile, service confidence has recovered 3.9 points to 8.0 in April after falling from a recent peak of 19.5 in October 2021 to 4.1 by October 2022.

Contact us by *email* or call 480-664-1333.

Ed Yardeni, President & Chief Investment Strategist, 516-972-7683
Debbie Johnson, Chief Economist, 480-664-1333
Joe Abbott, Chief Quantitative Strategist, 732-497-5306
Melissa Tagg, Director of Research Projects & Operations, 516-782-9967
Mali Quintana, Senior Economist, 480-664-1333
Jackie Doherty, Contributing Editor, 917-328-6848
Valerie de la Rue, Director of Institutional Sales, 516-277-2432
Mary Fanslau, Manager of Client Services, 480-664-1333
Sandy Cohan, Senior Editor, 570-228-9102