March 20, 2024

Morning Briefing

Nvidia, Refiners & Robots

Check out the accompanying chart collection.

Executive Summary: With excitement over Nvidia's AI-enabling offerings never greater than after its GTC conference this week, Jackie offers a timely word of caution: Nvidia investors would do well to keep an eye out for the peaking of the company's forward revenues and earnings. If Nvidia's stock follows the pattern of Cisco's circa 2000, the shares may peak about two months after revenues and earnings do. … Also: The recent outperformance of the S&P 500 Oil & Gas Refining & Marketing index likely reflects a jump in the crack spread suggesting that refineries may outearn analysts' expectations. … And: Meet the most humanoid robot yet, from Figure AI.

Information Technology: It's Nvidia's AI World. Sorry, Tim and Mark; Jensen is the tech world's new rockstar. Wearing his signature black leather jacket, Nvidia CEO Jensen Huang introduced the company's new GPU system to more than 300,000 people listening to *Nvidia's GTC 2024* conference in person or online—providing intriguing examples of how the system can be used in developing products imbued with artificial intelligence (AI).

The B200 GPU is part of Nvidia's new Blackwell platform, which includes software and hardware to make Nvidia a one-stop AI shop. The new system will use only a quarter of the power required by the old system, dubbed "Hopper," and it will provide inferencing capability that's 30 times greater than Hopper's. "Blackwell will be the most successful product launch in our history," said Huang, who provided a laundry list of tech titans already using Blackwell, including Amazon, Google, Oracle, and Microsoft. "The whole industry is gearing up for Blackwell."

As importantly, Nvidia is offering software that will help companies harness their own data to develop AI chatbots and applications. And Nvidia announced that it's working with VisionPro, Apple's virtual reality headset.

In last Thursday's *Morning Briefing*, we compared today's Nvidia to Cisco at the peak of the tech stock bubble in 2000. For today's commentary, Joe has assembled numerous charts comparing the two tech companies' forward revenues and earnings, as well as their stocks' valuation trajectories. They confirm that a picture is worth a thousand words.

If history rhymes, Nvidia investors should watch its forward revenues and forward EPS because both metrics peaked for Cisco two months before its stock price peaked. (FYI: “Forward” revenues and earnings are time-weighted averages of analysts’ consensus estimates for a base year and the following one. “Forward” P/Ss and P/Es are the ratios using forward revenues and earnings.)

Let’s take a look:

(1) *Comparing revenue.* Comparing the revenue of Cisco around the turn of the century and Nvidia’s revenue today is a bit unfair because the numbers aren’t adjusted for inflation. That said, here goes:

Cisco’s forward revenues peaked at $35.3 billion in January 2000, two months prior to the peak in the company's stock price. Then the company’s forward revenues tumbled by nearly half to a low of $18.8 billion just 21 months later in October 2001—a level from which they’ve subsequently climbed in stops and starts over the next two decades. Today, Cisco’s forward revenues are $52.6 billion (*Fig. 1*). While Cisco’s forward revenues have climbed by more than a third over the past 24 years, the shares are still priced well below their 2000 peak.

Nvidia’s forward revenues have also had their ups and downs over the years, but the downs are dwarfed by the amazing recent surge in analysts’ revenue estimates. Its forward revenues dipped to $29.2 billion in December 2022 and since have skyrocketed to $114.3 billion, a 292% increase. Nvidia’s share price, which has climbed almost 245% over the past year, is about 4% below its record high earlier this month.

(2) *Comparing earnings.* Forward earnings per share—again unadjusted for inflation—show a similar pattern, peaking just a few months prior to when Cisco's stock price hit its record high in March 2000.

Cisco’s forward EPS hit $0.89 in January 2000 and proceeded to decline more than 75% to $0.20 in August 2001. Cisco’s forward EPS has since climbed to $3.77, with its shares still about 40% below their 2000 peak (*Fig. 2*).

The climb in Nvidia’s forward EPS has been even more dramatic: It’s up 518% since October 2022, to $25.46 currently from $4.12 back then.

(3) *Comparing forward P/Es.* At its peak during the tech bubble, in March 2000, Cisco's forward P/E had climbed to 131.3. By October 2002, it had collapsed to 14.7, and it didn't bottom until hitting 7.9 in July 2012. Today, the forward P/E remains a shell of its former self at only 13.1 (*Fig. 3*).

Even though Nvidia's stock price has surged over the past year, its earnings have climbed even faster, resulting in a forward P/E that is lower today at 34.7 than it was a year ago at 54.5. The stock's forward P/E actually has been much higher at several points over the past 24 years, but it has been much lower as well. Nvidia's highest forward P/E was 439.5 in June 2009, and its lowest was 4.9 in August 2002.

(4) *Comparing forward P/S.* Cisco's forward P/S ratio peaked at 25.5, just as the stock's price topped out in March 2000. The ratio, which has never come close to those levels again, currently stands at 3.8 (*Fig. 4*).

At 19.4, Nvidia's P/S is below its 32.4 peak of June 2023 but elevated relative to its historical levels.

Energy: Refiners Break Out. The S&P 500 Oil & Gas Refining & Marketing industry's stock price chart has jumped so sharply ytd that it looks like the industry should reside in the S&P 500 Information Technology sector. The industry's stock price index has risen 25.1% ytd through Monday's close (*Fig. 5*). Its recent gains came after Ukraine drones successfully attacked some Russian refineries, surprising investors who were expecting new capacity in the Middle East and Africa to provide ample supplies.

The surge in the Refining & Marketing industry's stock price index has helped the Energy sector outperform most other sectors in the S&P 500. Here's the performance derby for the S&P 500 and its sectors ytd through Monday's close: Communication Services (14.4%), Information Technology (11.2), Energy (8.8), Financials (8.6), S&P 500 (8.0), Industrials (7.0), Health Care (6.3), Materials (5.9), Consumer Staples (5.8), Consumer Discretionary (1.8), Utilities (-0.2), and Real Estate (-3.1) (*Fig. 6*).

The sharp move in the Refining & Marketing index reflects the recent jump in the crack spread, or the difference between the cost of crude oil and the price of refined products. The spread bottomed on December 7, 2023 at $14.86 and jumped to $24.14 on March 18 (*Fig. 7*). The spread typically reflects what refiners stand to make in profits. It's more important to investors than the price of a barrel of Brent crude oil, which has only increased 12.3% ytd (*Fig. 8*). The widening spread explains why the price of gasoline has risen 31.1%

ytd, a much larger increase than we've seen in the price of crude (*Fig. 9*).

Either Wall Street analysts' earnings estimates for companies in the index haven't caught up to the rise in the crack spread or analysts believe the recent jump in crack spreads is temporary. Based on their consensus revenue estimates for index's component companies, analysts expect an 8.3% revenue decline this year and a 2.7% drop in 2025 (*Fig. 10*). Analysts are also calling for the index's aggregate earnings to drop sharply this year, by 28.1%, and another 5.8% in 2025 (*Fig. 11*).

Let's look at some of the news driving the oil markets:

(1) *Russia's refiners hit.* Ukraine drones have been attacking Russian refineries with some success even when the refineries are hundreds of miles inside Russian territory. Ukrainian President Volodymyr Zelenskiy said the country would use its weapons to exploit vulnerabilities in the "Russian war machine," a March 16 Reuters *article* reported.

On Saturday, a drone caused a fire at the Syzran refinery, which produces 170,000 barrels per day (bpd). It's unknown how much damage was sustained at the refinery, which is located southeast of Moscow. Drone attacks also have caused fires recently at Lukoil's NORSI refinery in Nizhny Novgorod and Rosneft's refinery in Ryazan. The damage will reduce production at the NORSI 317,000bpd refinery by about half and at the 350,000bpd Ryzan plant by about 70%, according to Reuters' sources. Drones also have targeted two other refineries recently with little to no damage done.

Russia announced this week plans to use missile systems to defend its oil and gas facilities. On March 1—before the drone attacks occurred—Russia imposed a six-month ban on gasoline exports during refinery maintenance to keep prices stable, a February 27 Reuters *article* reported. Those bans seem even more important after the drone attacks. "Russia in 2023 produced 43.9 million tons of gasoline and exported about 5.76 million tons, or around 13% of its production. The biggest importers of Russian gasoline are mainly African counties, including Nigeria, Libya, Tunisia, and also United Arab Emirates," the article states.

(2) *Red Sea ramifications.* Attacks by the Houthi rebels in Yemen are increasing the jitters of an already nervous oil market. This week, they targeted a Marshall Islands flagged tanker sailing to Singapore from Saudi Arabia. The Houthis described it as American, a March 19 Reuters *article* reported. Attacks narrowly missed hitting a US-flagged tanker in the Red Sea in February. Many ships are opting to sail around Africa to avoid the Red Sea. As a

result, they're burning an extra $1 million of fuel in every round trip.

(3) *US does maintenance.* US refiners are wrapping up their annual maintenance period, which occurs before the summer driving season starts. "They were running at about 81% of operable capacity as of the week ended Feb. 9, the lowest for this time of year since 2010, according to the U.S. Energy Information Administration," reported a February 21 *WSJ* *article*.

Expect the market to get tighter early next year when LyondellBasell Industries closes its 268,000bpd Houston refinery. On the positive side of the ledger, British Petroleum's 435,000bpd refinery outside of Chicago is expected to open this month after shutting down on February 1 when a power outage caused two transformers to fail, emitting black smoke and foul odors.

(4) *Watch gasoline.* While US oil production is near record highs, gasoline inventories are below levels for much of the past seven years (*Fig. 12* and *Fig. 13*). At 13.1mbd, US crude oil production is close to its record of 13.3mbd this February. And the level of gasoline inventories at 225.4 million barrels is 3.3% below its seven-year average.

The market would be even tighter if US car fuel efficiency hadn't improved dramatically in recent years. The Energy Information Administration (EIA) *expects* vehicle miles traveled both this year and next to increase 2% over 2019 levels, hitting an all-time high, due to increases in population, employment, and economic growth. But the average US miles per gallon that cars can drive should grow even faster, the EIA projects: by 5% in 2024 and 6% in 2025 over 2019 levels. As a result, US gasoline consumption is forecast to be about 4% less in 2024 and 2025 than it was in 2019.

(5) *New refining capacity globally.* Analysts have been expecting new capacity to keep the markets well supplied. Projects in the Middle East are expected to increase the amount of refined product by 650,000bpd. Supply is supposed to increase by 330,000bpd in China and by 220,000bpd in Africa, a January 24 *Oil & Gas Journal* *article* reported.

Disruptive Technologies: One Impressive Robot. Nvidia's Huang saved one of the most impressive parts of his presentation for the very end: Project Groot. It's Nvidia's hardware, software, and AI used in humanoid robots. The robots can speak clearly and are trained to move by watching videos of humans.

If you have a chance to check out only one video today, make it this *video* of Figure AI's humanoid robot. The robot moves smoothly like a human, not herky-jerky like some robots we've seen. It also sounds human, answering several questions as a human would.

For example, Figure AI's robot sees a plate, cup, and apple on a table in front of it. When a human asks for something to eat, the robot picks up and hands the apple to the human. Why did it hand over the apple? The robot answers: Because the apple is the only edible object on the table.

Figure AI announced in February that it was working with Open AI to develop a new Visual Language Model that allows the robot to "understand" the scene in front of it. One month later, the company posted the linked video on YouTube.

Figure AI was founded in 2022, by Brett Adcock, who previously founded Archer Aviation, which makes an electric-battery-powered, vertical takeoff and landing aircraft. That company went public via a reverse merger. He also founded Vettery, an online talent marketplace, which was acquired by The Adecco Group in 2018 for $110 million. His latest venture, Figure AI, raised $675 million in February from investors that include Nvidia, Microsoft, Jeff Bezos, and Intel's and OpenAI's investing arms. The deal valued the company at $2.6 billion.

We don't know whether Nvidia's products are inside Figure AI's robot, but Nvidia did include Figure AI on a list of robotics companies with which it was working. Others include Boston Dynamics, 1X Technologies, Agility Robotics, and Apptronik.

Calendars

US: **Wed:** Fed Interest Rate Decision 5.50%; FOMC Projections; MBA Mortgage Applications; Crude Oil Inventories & Gasoline Production. **Thurs:** Leading Indicators -0.2%; Initial Claims 214k; Philadelphia Fed Manufacturing Index -1.8; Existing Home Sales 3.95mu; S&P Global M-PMI & NM-PMI Flash Estimates 51.8/52.0; Fed Balance Sheet; Barr. (FXStreet estimates)

Global: **Wed:** Eurozone Consumer Confidence -15.0; Germany PPI -0.1%m/m/-3.8%y/y; Italy Industrial Production 0.0%; UK Headline & Core CPI 3.5%/4.6%y/y; UK Input & Output PPI 0.2%/0.1%; Australia Employment Change 40.2k; Australia Unemployment & Projection Rates 4.0%/66.8%; Lagarde; Lane; Nagel. **Thurs:** Eurozone, Germany, and France C-PMI Flash Estimates 49.7/46.8/48.8; Eurozone, Germany, and France M-PMI Flash Estimates

47.0/43.1/47.3; Eurozone, Germany, and France NM-PMI Flash Estimates 50.5/48.8/48.8; Business Survey 100; UK C-PMI, M-PMI, and NM-PMI Flash Estimates 53.3/47.9/53.8; BoE Interest Rate Decision 5.25%; ECB Economic Bulletin. (FXStreet estimates)

Strategy Indicators

S&P 500 Buybacks (*link*): S&P 500 quarterly buybacks rose 18.0% q/q during Q4-2023 to a six-quarter high of $219.1 billion from $185.6 billion during Q3-2023. That's 22.0% below its record high of $281.0 billion during Q1-2022, but remains well above its 22-quarter low of $88.7 billion during Q2-2020, when companies were seeking to preserve cash amid the highly uncertain economic outlook caused by Covid-19. The four-quarter sum of buybacks posted its first gain in six quarters, rising 1.0% q/q to $795.2 billion from $787.3 billion in Q3-2023. That's still down 20.9% from its record high of $1.005 trillion during Q2-2022.

S&P 500 Sectors Buybacks (*link*): Seven of the 11 S&P 500 sectors had buybacks rise q/q during Q4-2023, down from nine rising q/q a quarter earlier. Still, that's up from Q2-2023's pace; that quarter, Information Technology was the only sector to rise q/q as many companies in the other sectors chose to conserve cash on expectations of an economic slowdown. Industrials' buybacks rose to a record high during Q4-2023, followed by a 13-quarter high for Utilities and an eight-quarter high for Consumer Discretionary. Health Care's buybacks was at a 13-quarter low, followed by a 12-quarter low for Materials and a six-quarter low for Energy. Information Technology accounted for a leading 25.7% of the S&P 500's buybacks in Q4-2023—placing ahead of Communication Services (15.8%), Financials (13.4), Consumer Discretionary (13.1), and Industrials (12.4). Information Technology has led all sectors in every quarter since Q3-2017 except for one (during Q1-2023, it was edged out by Financials).

US Economic Indicators

Housing Starts & Building Permits (*link*): Both housing starts and building permits were stronger than expected in February, rebounding from January's weather-related decline, with the former nearing a two-year high. *Total housing starts* shot up 10.7% (vs 7.4% expected) to 1.521mu (saar)—the biggest gain in nine months—following January's revised 12.3% shortfall, which was narrower than the initial decline of 14.8%, though still the largest decline since May 2022. The January starts final number was 1.374mu, up from the

1.330mu preliminary estimate. Both *single-family* (+11.6% to 1.129mu, saar) and multi-family (+8.3 to 392,000) starts rebounded during the month, though single-family starts are up 29.5% from a year ago, while multi-family starts are 34.8% below. *Building permits* climbed 1.9% to 1.518mu (saar) last month, after dipping 0.3% in January to 1.489mu, with single-family (+1.0% to 1.031mu, saar) and multi-family (+4.1 to 487,000 units) both in the plus column. Permits are 2.4% above a year ago, with single-family permits up 29.5% y/y and multi-family permits down 29.0%. Looking ahead, *NAHB's March survey*, released on Monday, was optimistic, as builder sentiment moved above the breakeven point of 50 for the first time since last July. *Confidence* among US homebuilders climbed for the fourth month, from 34 in November to an eight-month high of 51 this month. All three components of the housing market index (HMI) improved for the fourth successive month in March—future sales (+23 points to 62), current sales (+16 to 56), and traffic of prospective buyers (+13 to 34).

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