MORNING BRIEFING
March 30, 2023

Financials, Semis & The Fountain Of Youth

Check out the accompanying chart collection.

Executive Summary: Financial companies have had it rough lately, but those involved in the capital markets should benefit from easy y/y comparisons this year. Jackie recaps takeaways from Jeffries' fiscal Q1 earnings, as the early reporter may be a bellwether for the industry, as well as industrywide data and analysts' expectations for the S&P 500 Investment Banking & Brokerage industry. … Also: The semiconductor industry downturn may finally be ending, says Micron Technology's CEO. But semiconductor investors are already focused on 2024's better growth prospects. … And in our disruptive technologies spotlight: A breakthrough in anti-aging science.

Financials: Rebound Delayed. Financial companies with investment banking and capital markets businesses have had a rough Q1 with the capital markets slamming shut after the demise of Silicon Valley Bank and others. But last year was no picnic for them either. The Federal Reserve raised interest rates seven times over the course of 2022, and the federal funds rate jumped 425 ppts to a target range between 4.25%-4.50%. Inflation spiked, bond prices fell, and recession fears rose.

We believe that the investment banking and capital markets businesses will bolster financial companies' bottom lines as 2023 progresses because comparisons to 2022 are relatively easy. The recent banking fiasco may just have pushed that optimistic scenario out by a quarter or two.

Investors got their first look at Q1-2023 earnings when Jefferies Financial Group reported results on Tuesday for its quarter ending February 28. The firm's Q1 net revenue dropped 24% y/y, and operating earnings fell 60.6% y/y to $129.3 million. But behind that dour news, there were a few reasons for optimism. Here's Jackie's look at Jefferies' results and the industry's investment banking business in general:

(1) *Faint signs of improvement.* Jefferies' Q1 investment banking and capital markets revenue tumbled 17% y/y, but it looks appreciably better on a q/q basis, as these results were quite depressed during Q4. Q1 revenue from equity underwriting rose 14.6% q/q, debt underwriting revenue rose 29.9% q/q, and equity and debt capital markets revenue jumped 33.8% q/q, *reported* the company. Only Jefferies' advisory fees declined q/q, by 22.1%.

Jefferies' Q1 earnings beat analysts' consensus estimate, which had been progressively cut for the last three months. Jefferies' earnings per share of 54 cents was down sharply from last year's $1.23 a share, but it topped analysts' consensus estimate of 43 cents a share, a March 28 Reuters *article* reported. And while analysts expect this year's earnings per share to be flat or down slightly from last year's ($2.99 versus $3.06), they remain optimistic about the future, with 2024 earnings forecast to surge to $4.43 a share.

(2) *Similar patterns industrywide.* Just as we saw in Jefferies' results, industrywide data on Q1 capital markets activity fell on a y/y basis but improved for many categories on a q/q basis. US high-yield issuance in Q1 of $45.2 billion was down from Q1-2022's $54.4 billion but nearly triple Q4-2022's $15.5 billion, according to Dealogic *data* in the *WSJ*. The investment-grade debt picture shows a similar, if less dramatic, pattern: Q1 underwriting volume of $406.0 billion fell short of Q1-2022's $502.0 billion but dwarfed Q4-2022's $216.1 billion.

The equity offering bust has been even more dramatic. In Q1, IPO offerings fell to $2.4 billion, less than a fourth of the $10.9 billion of Q1-2022 but double the $1.1 billion of Q4-2022.

Unsettled markets have also doused CEOs' willingness to make acquisitions. US-targeted M&A activity fell to $275.9 billion in Q1, down from $492.1 billion in Q1-2022 and $324.9 billion in Q4-2022.

(3) *Earnings estimates have room to fall.* The S&P 500 Investment Banking & Brokerage industry's stock price index has fallen 15.0% ytd through Tuesday's close and 27.4% from its January 11, 2022 peak (*Fig. 1*). The industry's index is 1.8% below its October low.

The industry posted losses last year, with revenue dropping 10.5% and earnings declining even more, 30.7%. Analysts' net earnings revisions have been negative since late last year. Even so, the consensus estimate calls for an earnings rebound despite the tough current environment. Revenue is forecast to increase 5.7% this year and 6.6% in 2024 (*Fig. 2*). Likewise, earnings are forecast to jump 14.1% this year and 18.0% in 2023 (*Fig. 3*).

Investors aren't as sanguine. The industry's forward P/E has fallen to 10.6, down from 11.8 at the start of the year and from 13.8 at its recent peak in February 2022 (*Fig. 4*).

Information Technology: Micron Calls the Semi Industry Bottom. The chip industry is slogging its way through the worst downturn in the last 13 years, confirmed Micron

Technology CEO Sanjay Mehrotra on Tuesday during the company's fiscal Q2 (ended March 2) *conference call*. But he also offered up some rays of hope about future sales and inventory levels. He expects the volume of shipments for DRAM and NAND chips to "increase on a sequential basis from here on" and the industry's demand and supply balance to "gradually improve through the course of the year."

The optimistic outlook helped the chip manufacturer's shares rise 7.2% Wednesday as investors looked past Micron's Q2 inventory write-down and y/y sales declines.

Here's a look at some of the details:

(1) *AI needs lots of chips.* One of the strongest areas of Micron's business is selling chips for servers used in data centers. After declining in recent quarters, server sales will start to grow again in the current quarter (fiscal Q3, ending June 2), and data center customer inventories will be healthy by the end of 2023, said Mehrotra. in the company's fiscal Q2 earnings *conference call* on Wednesday.

Artificial intelligence (AI) is a secular driver of demand growth in data centers. "An AI server today can have as much as 8x the DRAM content of a regular server and up to 3x the NAND content," Mehrotra said.

(2) *PC market still resizing.* PC demand is normalizing after the pandemic-sparked surge, Mehrotra said, but PC customer demand for chips should improve nonetheless. "Although still elevated, client customer inventories have improved meaningfully, and we expect increased bit demand in the second half of the fiscal year," said Mehrotra.

(3) *Graphics and mobile markets.* In the market for graphics chips, customer inventory adjustments are "progressing well," and demand should be stronger in the second half of this fiscal year (ending August) than it was in the first half.

This year, smartphone unit volume may be down slightly y/y, the company forecasts, and some customers continue to reduce their chip inventories. "In aggregate, we expect mobile customer inventory to improve through the remainder of calendar 2023, and we expect growth in mobile DRAM and NAND bit shipments in the second half of our fiscal year versus the first half," Mehrotra said.

(4) *Autos & industrial markets.* Auto and industrial clients now represent more than 20% of Micron's sales, reflecting just how "smart" cars and factories have become. In fiscal Q2,

Micron's auto revenue grew about 5% y/y, and demand is expected to remain strong.

Conversely, the industrial market continues to soften, as customers are reducing their inventory and demand has weakened. Again, the company expects demand to improve during the second half.

(5) *Cuts just in case.* Notwithstanding these expectations for market improvement ahead, the company had negative free cash flow of $1.8 billion in fiscal Q2 and took a $1.4 billion inventory write-down. It's also is reducing headcount by almost 15% and cutting fiscal 2023 capital spending by more than 40% y/y to about $7 billion.

(6) *Semis' bounce continues.* Semiconductor investors have anticipated the industry's improvement for many months. The S&P 500 Semiconductors industry stock price index has jumped 55.8% from its 2022 low, as of Tuesday's close (*Fig. 5*). The index remains 20.9% off of its November 29, 2021 peak.

As is often the case in this industry, investors jumped into semiconductor shares before seeing the industry's results actually turn around. Revenue for the S&P 500 Semiconductors industry this year is expected to decline 10.1%, before increasing 14.3% in 2024 (*Fig. 6*). Likewise, the industry's earnings are forecast to drop 21.2% this year before rebounding by 31.4% next year (*Fig. 7*). The optimism has pushed the Semiconductors industry's forward P/E up to 23.5, a nice rebound from its 13.7 low of June 30, 2022 and not far from its 25.0 high of November 25, 2021 (*Fig. 8*).

Disruptive Technologies: Forever Young. Humans have always been obsessed by youth. The 1980s band Alphaville sang about wanting to be forever young. Spanish explorer Ponce de Leon supposedly was searching for a fountain of youth when he traveled to Florida. And cosmetic companies spend billions to create elixirs that diminish wrinkles. While a fountain of youth hasn't been found, scientists have discovered a way to reverse some signs of aging.

Here's a look at this exciting area of study:

(1) *First, a biology lesson*. When we are young, aging cells are automatically destroyed. As we age, this process is interrupted, and zombie cells—also known as senescent cells—stick around.

Scientists have shown that senescent cells cause the decline of a specific protein, a-Klotho, which appears to cause changes affiliated with aging. Specifically, a-Klotho appears to affect lifespan, health span, and renal and cognitive function in both mice and humans. Mice that have high a-Klotho levels live longer, have enhanced cognition, delayed age-related vascular dysfunction, decreased diabetes-related inflammation, and improved skeletal muscle regeneration.

There are no drugs that directly increase or replace a-Klotho. So scientists are using senolytic drugs to reduce senescent cells, which in turn increases levels of the a-Klotho protein; doing that appears to improve the functioning of many different types of cells.

(2) *Testing on mice.* Mayo Clinic researchers found that giving senolytic drugs to mice increased the amount of a-Klotho measured in their urine, kidneys, and brains, a March 12 *report* on the study in *The Lancet* explained.

In another study by Mayo Clinic researchers, an elderly mouse that aged naturally appeared shrunken and old, while another mouse from the same litter had received senolytic treatment and "had the pep of a cheerleader," explained a February 28 *article* in *National Geographic*. The authors believe senolytic treatment could help the improve the functioning of cells in the heart and brain. It could reduce heart disease, treat type 2 diabetes, and reverse skin aging and osteoporosis.

(3) *Testing on humans.* Experiments on mice have been so successful that human trials have begun. In one trial, researchers at the University of Texas San Antonio, the Mayo Clinic, and Wake Frost School of Medicine used senolytics in patients suffering from idiopathic pulmonary fibrosis (IPF), a lung disease resulting from the scarring of lung tissue. "Patients who participated in the trial enhanced their six-minute timed walking distance by an average of 21.5 metres—no other drug or therapy has shown the same results as senolytics," a December 19 Longevity.Technology *article* reported.

Unity Biotechnology, a company developing senolytic therapies, is currently focused on treating ophthalmologic and neurologic diseases. It recently concluded a Phase II study where patients with diabetic macular edema were treated for 24 weeks with a substance that eliminated senescent cells in the eye, a March 2 *article* in *Genetic Engineering & Biotechnology News* reported. At the start of the trial in June 2022, the patients had fluid in the eye and visual deficits. Six months later, a "very significant majority" of patients didn't need a second injection and their vision improved by two eye-chart lines on average.

The company, which has its roots in the Mayo Clinic, has also had setbacks. Earlier this week, Unity's share price was halved to $1.95 on news that its lead drug candidate UBX 1325—a senolytic therapy to treat wet age-related macular degeneration—failed to outperform Regeneron's eye therapy aflibercept in a Phase 2 trial.

Calendars

US: Thurs: Real GDP & GDP Price Deflator 2.9% /3.5%; Core PCED 4.3%q/q; Corporate Profits; Initial & Continuous Jobless Claims 196k1.697m; Natural Gas Storage; Yellen; Barkin. **Fri:** Core PCED 0.4%m/m/4.7%y/y; Personal Income & Consumption 0.2%/0.3%; University of Michigan Consumer Sentiment Headline, Current Conditions, and Expectations 63.2/66.4/61.5; University of Michigan 1-year & 5-year Inflation Expectations 3.8% & 2.8%; Chicago PMI 43.4; Baker-Hughes Rig Count; Williams; Cook. (Bloomberg estimates)

Global: Thurs: Eurozone Economic Sentiment Indicator 99.8; Eurozone Consumer Confidence -19.2; Germany CPI 0.7%m/m/7.3%y/y; Italy PPI; Italy Unemployment Rate 8.0%; Spain CPI 0.7%m/m/3.8%y/y; Japan Unemployment Rate 2.4%; Japan Industrial Production 2.7%; ECB Economic Bulletin; Japan Retail Sales 5.8%y/y; China M-PMI & NM-PMI 50.5/54.2. **Fri:** Eurozone Headline & Core CPI 7.5% & 5.7% y/y; Eurozone Unemployment Rate 6.7%; Germany Import Prices -1.0%m/m/4.2%y/y; Germany Retail Sales 0.5%m/m/-6.1%y/y; Germany Unemployment Change & Unemployment Rate 3k/5.5%; France CPI 0.9%m/m/5.5%y/y; France PPI ; France Consumer Spending 0.2%; UK GDP -0,2%q/q & 0.4%y/y; Italy CPI 0.0%m/m/8.2%y/y; UK Nationwide HPI -0.3%m/m/-2.2%y/y; Japan Housing Starts -0.5%; Lagarde. (Bloomberg estimates)

Strategy Indicators

Stock Market Sentiment Indicators (*link*): The *Bull-Bear Ratio* climbed to 1.52 this week after falling the prior two weeks from 1.83 to 1.38; it was at 1.89 during the February 7 week—which was highest since early January 2022. *Bullish* sentiment increased to 40.8% this week after sliding 5.5ppts (to 39.7% from 45.2%) the prior two weeks. It was at 48.6% during the February 7 week—which was the highest percentage since the first week of 2022. Bulls outnumbered bears for the 19th consecutive week. *Bearish* sentiment fell to 26.8% after a two-week climb from 24.7% (the fewest bears since January 2022) to 28.8%. Recent readings are well below the 44.1% reading in early October of last year. The *correction count* edged up to 32.4% this month, after slipping from 31.9% to 31.5% last week—remaining well below its late September 2022 peak of 40.3%. Turning to the *AAII Sentiment Survey* (as of March 23), bearish sentiment continued to move closer to 50.0%, while neutral sentiment ended its streak of above-average readings; bullish sentiment rebounded. The *percentage expecting stock prices to rise* over the next six months climbed 1.7ppts to 20.9% after dropping 5.6ppts the prior week to 19.2%—the lowest since the September 22, 2022 week's 17.7% reading. Optimism was at an unusually low level for the fifth successive week and the 45th time in the past 64 weeks. It's below its historical average of 37.5% 68 of the last 70 weeks. The *percentage expecting stocks to fall* over the next six months ticked up from 48.4% to 48.9%, the highest since the December 22, 2022 week's 52.3%. Pessimism was at an unusually high level for fourth straight week and for the 43rd time in the past 64 weeks; it's been above its historical average of 31.0% for 65 of the past 70 weeks. The *percentage expecting stock prices will stay essentially unchanged* over the next six months slipped for the second month from 33.4% to 30.2%, putting neutral sentiment below its historical average of 31.5% for the first time since December 29, 2022's 25.9%.

MSCI World & Region Net Earnings Revisions (*link*): Analysts' recent earnings revisions through March suggest they are less pessimistic about profits in Europe. They're more pessimistic about the Emerging Market regions. The US MSCI's NERI was negative in March for a ninth month following 23 straight positive readings, but was steady near a seven-month high of -6.4%. That compares to a post-pandemic high of 21.1% in July 2021 and an 11-year low of -36.9% in May 2020. The AC World ex-US MSCI's NERI was negative for a 13th month following 17 straight positive readings, but improved to -4.1%. NERI turned negative for the first time in five months for EM Eastern Europe. EM Asia was negative for a 17th month and EM Latin America for a second month. Here are March's scores among the regional MSCIs: EM Eastern Europe (-0.7% in March, down from 2.3% in February), EMU (-1.8, 3.5 [29-month low]), Europe (-2.2, -4.3 [30-month low]), Europe ex-UK (-2.5, -4.4 [29-month low]), EM Latin America (-3.5 [31-month low], -2.0), EAFE (-3.6, -4.5 [30-month low]), AC World ex-US (-4.1, -4.1), Emerging Markets (-4.2, -3.7), EM Asia (-4.2, -3.8), AC World (-4.7, -4.7), and the United States (-6.4, -6.4).

MSCI Countries Net Earnings Revisions (*link*): NERI was positive for 15/41 MSCI countries in March, unchanged from February's count. That's the lowest since August 2020 and down from a peak of 35/41 during May 2020, which nearly matched the record-high 36/41 from June 2004. That also compares to zero countries with positive NERI from April to June 2020. NERI improved m/m in March for 18/41 countries. That's down from 19/41 in February and 26/41 in January, which was the broadest improvement since July 2021.

NERI was at a 19-year high in March for the Philippines, followed by: Spain (70-month high), Belgium (20), and Switzerland (13). Denmark and Korea were at 33-month lows, followed by 32-month lows for Brazil, Finland, the Netherlands, and South Africa. Italy and Turkey has had positive NERI for 29 straight months, followed by Austria (28), Mexico (24), and Indonesia (17). Hong Kong has the worst negative-NERI streak, at 22 months, followed by China (19), Brazil (17), India (15), Switzerland (14), and Germany (12). NERI flipped back into positive territory in March for the Czech Republic. It turned negative m/m for Poland. The highest NERI readings in March: New Zealand (15.8%), Peru (11.3), Belgium (11.0), Turkey (12.0), Spain (9.9), Greece (9.8), and the Philippines (9.1). The weakest NERIs occurred this month in Korea (-13.7 [33-month low]), Denmark (-13.5 [33-month low]), Taiwan (-12.6), the Netherlands (-9.7 [32-month low]), Brazil (-8.5 [32-month low]), and Japan (-8.2 [31-month low]).

AC World ex-US MSCI (*link*): This index is up 3.1% in local-currency terms so far in 2023. In US dollar terms, the index is up a greater 3.8% so far. Local-currency forward revenues has risen 18.8% since it bottomed in January 2021 and has been at new record highs since July 2022. However, local-currency forward earnings is down 3.1% from its record high in early September but is still up 54.1% since it bottomed in July 2020. Revenues are expected to rise 2.3% in 2023 and 3.8% in 2024 following a gain of 13.9% in 2022, and earnings are expected to be flat in 2023 and rise 9.8% (2024) after rising 12.9% (2022). The industry analysts' sales forecasts imply short-term 12-month forward revenue growth (STRG) of 2.5% and short-term 12-month forward earnings growth (STEG) of 2.4%, compared to 4.1% and 10.0% before Covid-19 hit the news. These measures bottomed at -0.1% and -0.3%, respectively, during May 2020. The profit margin implied by analysts' earnings and revenue estimates calls for a decrease to 8.8% in 2023 from 9.0% in 2022, before rising to 9.3% in 2024. The forward profit margin forecast of 8.9% is down 0.4ppt from its record high of 9.3% during March 2022 but remains well above its 10-year low of 6.6% at the end of May 2020. The Net Earnings Revision Index (NERI) for the AC World ex-US MSCI was negative in March for a 13th straight month following 17 positive readings, but remained steady m/m at -4.1%. That compares to a 12-year high of 6.4% in July 2021 and an 11-year low of -23.9% in May 2020. The forward P/E of 12.2 is down from a 10-month high of 12.8 in mid-February, but remains above its 29-month low of 10.8 in mid-October. That compares to an 18-year high of 17.1 in February 2021 and its March 2020 low of 10.8. The index is at an 18% discount to the World MSCI P/E, up from its record-low 22% discount during the first half of 2022.

Emerging Markets MSCI (*link*): The EM MSCI price index is up 1.5% in US dollar terms so far in 2023. In local-currency terms, EM is up a similar 1.5% year-to-date. Local-currency forward revenues has risen 12.3% since its bottom in January 2021 but remains 3.6% below its record high in May 2019. Local-currency forward earnings is up 23.4% since its bottom in June 2020 but is now 13.7% below its record high in March 2022. Revenues are expected to rise 3.9% in 2023 and 6.2% in 2024 after jumping 13.2% in 2022. That's expected to lead to an earnings decline of 2.2% in 2023 and a gain of 16.2% in 2023, following a 6.7% rise in 2022. Forecasted STRG of 4.4% is down from April 2021's 11-year high of 12.6%, which compares to a five-year low of 3.6% at the end of April 2020. STEG has improved to 2.4% from February's 14-year low of 0.0%, which compares to a record high of 33.7% in December 2020. The implied profit margin is expected to drop to 6.8% in 2023 from 7.3% in 2022 and recover to 7.4% in 2024. The forward profit margin of 6.9% is up from a four-year low of 6.1% at the end of May 2020 and compares to its 10.3% record high in December 2007. NERI was negative in March for a 17th straight month, and weakened to -4.2% from -3.7% in February. That compares to an 11-year high of 6.0% in February 2021 and an 11-year low of -18.7% in May 2020. Emerging Markets' forward P/E of 11.4 is down from a 12-month high of 12.3 at the end of January, but remains above its 30-month low of 10.2 in October. That compares to a record high of 16.3 in February 2021 and its March 2020 low of 10.1. The index is trading at a 24% discount to the World MSCI P/E. That's up from a 33% discount at the start of 2022, which was its biggest discount since 2005.

EMU MSCI (*link*): The EMU MSCI price index leads all regions so in 2023 with a gain of 8.3% in local-currency terms. The index is up a greater 10.0% in US dollar terms so far, which also leads all regions. Local-currency forward revenues is down 0.9% from its record high in November, its first since September 2008. Revenues has risen 22.9% since its bottom in January 2021. Local-currency forward earnings is up 82.3% from its bottom in July 2020, but has dropped 0.9% from its record high in November. That record had been its first since January 2008. Revenues are expected to fall 0.7% in 2023 and rise 2.7% in 2024 after gaining 16.3% in 2022. That's expected to lead to an earnings gain of 1.6% in 2023 and 8.2% in 2024 following a 19.8% rise in 2022. Forecasted STRG of 0.1% is down from a record-high 8.3% during April 2020, but that's up from an 11-year low of -0.9% during April 2020. STEG has dropped to 3.1% from a record high of 47.4% in December 2020, but that's up from a record low of -6.7% in April 2020. The implied profit margin is expected to remain unchanged y/y at 8.9% in 2023 and rise to 9.4% in 2024. The forward profit margin improved m/m to 9.1%, which matches its record high in October 2007 and compares to a 12-year low of 6.0% at the end of July 2020. EMU's NERI was negative in March for a fourth month after 23 straight negative readings, but improved to -1.8% from a 29-month low of -3.5% in February. That compares to a record low of -35.9% in May 2020 and is down from a record high of 15.2% in September. EMU's forward P/E of 12.2 is up from a 29-month low of 10.2 in mid-October, which compares to a record high of 18.3 in July 2020 and low of 10.2 in March 2020. The index is trading at an 18% discount to the World MSCI P/E, which is up from September's 11-year low of 25%.

China MSCI (*link*): The China MSCI price index is a middle-of-the-road performer so far in 2023, with a gain of 2.0% in local currency terms. It's up 1.6% in US dollar terms. Local-currency forward revenues has risen 6.5% from its 12-year low in October, but is still 34.4% below its record high in October 2014. Local-currency forward earnings is up 8.3% from its five-year low in October, but remains 16.2% below its record high in June 2018. Revenues are expected to rise 6.7% in 2023 and 6.4% in 2024 after rising 9.7% in 2022. That's expected to lead to earnings gains of 14.9% in 2023 and 14.3% in 2024, following a 6.3% rise in 2022. Forecasted STRG of 6.6% is down from an 11-year high of 13.5% in April 2020, but that's up from a five-year low of 5.0% at the end of April 2020. STEG has dropped to 15.0% from a 10-year high of 18.6% during December 2020, which compares to a four-year low of 8.0% in April 2020. The implied profit margin ranks as the lowest in the world; it's expected to rise to 4.5% in 2023 from 4.2% in 2022 and improve further to 4.9% in 2024. The forward profit margin of 4.6% is down from a record high of 5.2% in July 2021, but is up from its post-pandemic low of 4.5% during November 2022. NERI was negative for a 19th straight month in March and down to -1.5% from -1.4% in February, but remains near its highest level since October 2021. That compares to a 23-month low of -11.7% in May 2022. China's forward P/E of 10.0 is up from a seven-year low of 8.5 in late October. That compares to 12.1 at the start of 2022 and its March 2020 pandemic-low of 10.5. The index is trading at a 33% discount to the World MSCI P/E, up from a 22-year low discount of 46% in March 2022.

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