MORNING BRIEFING
February 28, 2023

The Inflation & Valuation Questions

Check out the accompanying chart collection.

Executive Summary: Are stock valuations too high for our inflationary times? Admittedly, last year's bear market didn't maul valuations as severely as most do. But inflation has been moderating in a host of areas, which we expect to continue. And if the economy sticks to the rolling-recession script, as we think it will, stocks aren't overvalued but fairly valued, in our opinion. … Also: For more perspective on the valuation question, we look at various valuation models' current readings in their historical context, including a valuation model that takes inflation into account.

Weekly Webcast. If you missed Monday's live webcast, you can view a replay *here*.

Valuation I: Transitory Versus Persistent Inflation. In his famous December 5, 1996 *speech*, then-Fed Chair Alan Greenspan raised the valuation issue when he asked, "But how do we know when irrational exuberance has unduly escalated asset values, which then become subject to unexpected and prolonged contractions ... ?"

That sounded like he was concerned about a bubble in the stock market. However, he was just asking the question, not answering it. He was thinking out loud, essentially. Indeed, right before posing the question, he suggested that stocks were not irrationally exuberant given that "sustained low inflation implies less uncertainty about the future, and lower risk premiums imply higher prices of stocks and other earning assets."

Today, we face a similar valuation question. However, this time the question is whether valuations are too lofty given that inflation is much more troublesome now than it was during the second half of the 1990s. Some of the latest inflationary pressures are turning out to be transitory, especially for consumer durable goods. Others are more persistent, especially for services and wages. Consider the following:

(1) *Demand and supply shocks.* In response to the pandemic, excessively stimulative fiscal and monetary policies in the US boosted demand, which caused a supply shock, thus boosting inflation over the last two years. Most of the demand shock occurred for goods since services activity was still curtailed by social restrictions. The PCED for consumer durable goods jumped from 1.4% y/y at the end of 2020 to peak at 10.6% during February

2022. It was down to 1.1% during January of this year (*Fig. 1*).

The PCED for nondurable goods (including food and energy) rose from -1.0% at the end of 2020 to peak at 13.2% during June 2022. It was down to 7.0% during January (*Fig. 2*).

We expect food and energy prices to remain elevated, sending the y/y inflation rate for nondurable goods falling toward zero over the remainder of this year. We also expect that the PCED for durable goods will fall into slightly negative territory in coming months, as the CPI for durable goods already has done.

(2) *Rent.* As a result of the pandemic, the demand for single-family homes soared. Rising mortgage rates clobbered affordability for first-time homebuyers, forcing them to rent (*Fig. 3*). So rent inflation soared from about 2.0% y/y in early 2021 to around 8.0% in both the CPI and during January of this year (*Fig. 4*). Rising mortgage rates also reduced the supply of homes. Since many homes have been financed at record-low mortgage rates in recent years, more would-be sellers than usual chose to stay put instead of sell and be subject to higher rates on their new home.

But rent inflation on newly signed leases has plunged since the middle of last year as more newly built apartments have become available and renters have resisted spending so much of their incomes on rent (*Fig. 5*). (See the February 27 *WSJ* *article* “Apartment Rents Fall as Crush of New Supply Hits Market. Declines signal tenants may be maxed out on how much income they can devote to rent.”)

(3) *Labor market.* Following the pandemic, labor turnover has been high as more workers quit their jobs for better paying ones, driving up wage inflation (*Fig. 6*). Employers may be starting to resist paying ever higher wages when their productivity has been depressed by high quits. They are likely to spend more of their money on productivity-enhancing technologies that augment the productivity of their workforce so they can afford to pay workers more.

(4) *Geopolitics.* The invasion of Ukraine by Russian President Vladimir Putin’s army on February 24, 2022 exacerbated the global inflationary outlook by driving up grain, crude oil, and natural gas prices. However, these commodity prices have been coming down in recent months as high prices stimulated the production of more supplies.

(5) *Bottom line.* As Joe and I discuss in the next section, valuation models mostly show that stocks did not get as cheap in last year’s bear market as they did during previous bear

markets. That assumes, as we do, that the latest bear market ended on October 12, 2022.

Bearish strategists believe that the bear market isn't over and that it won't end until valuation multiples are much lower. During 2022, they mostly argued that the Fed's tightening would cause a hard landing, which would put more downward pressure on both earnings and the valuation of those earnings. Now they are saying that even though recent data suggest a no-landing scenario, that's still bearish. That's because they expect that Fed officials will conclude that they must continue to raise interest rates to cause a recession as the only way to bring inflation down.

As Debbie and I observed before, an inflationary no-landing scenario is the long way to a hard landing, and bearish for stocks. That's not our most likely scenario. We continue to see a rolling recession with inflation continuing to moderate. If that proves to be the case, then stocks are fairly valued, in our opinion.

Valuation II: Rounding Up the Usual Suspects. Now let's review the latest valuation metrics. Joe and I don't have a favorite one. They all have advantages and disadvantages. So we try to get an overall sense of valuation by looking at all of them. Here goes:

(1) *Trailing versus forward P/Es.* We are not fans of P/Es based on trailing earnings. We prefer P/Es based on forward earnings because investors tend to look forward, not backward, when they value stocks. They determine the valuation of the consensus S&P 500 forward operating earnings per share of industry analysts over the coming 12 months, in our opinion. The downside of forward earnings is that industry analysts collectively don't anticipate the occurrence and duration of recessions.

The P/E based on four-quarter trailing earnings per share is available since 1935 (*Fig. 7*). It has averaged 15.5 since then. It was 19.6 at the end of last year, well above the average.

During February of this year, the forward P/E of the S&P 500 rose to 18.5 (*Fig. 8*). That's relatively high, though it is down from the January 2021 peak of 22.6. This series is also available weekly.

(2) *PEG ratios.* We also monitor the S&P 500's ratio of the forward P/E to the consensus analysts' forecast of long-term earnings growth (LTEG), i.e., over the next three to five years (*Fig. 9*). Both the forward P/E and LTEG have declined since 2021, causing the PEG ratio to jump to 1.8 in mid-February (*Fig. 10*). This is a high reading, suggesting that the P/E is still too high relative to the diminished prospects for LTEG.

Then again, during the pandemic years of 2020 and 2021, both the P/E and LTEG were unsustainably high. The LTEG peaked at a record high of 23.9 during the February 4 week of 2021. Now it is back down to 10.0, which is a more normal reading for LTEG. Analysts certainly have an optimistic bias, since every economist knows that overall earnings can't grow faster than nominal GDP.

(3) *Buffett ratios.* One of the most alarming valuation metrics before the latest bear market was the Buffett Ratio showing the market cap of all US equities (excluding foreign issues) divided by nominal GNP (*Fig. 11*). Another similar ratio is the market cap of the S&P 500 divided by S&P 500 revenues. Both are quarterly series and track each other very closely. Both peaked just below 2.0 during 2000 just before the tech bubble burst, triggering significant bear markets in the S&P 500 and the Nasdaq, led by plunging tech stock prices. During H2-2001, both ratios were in record-high territory at 2.77 and 2.79, respectively.

Joe and I found that the weekly price-to-sales ratio (P/S)—i.e., the S&P 500's stock price index divided by its forward revenues—tracks the quarterly P/S ratio very closely. ("Forward revenues" is the time-weighted average of analysts' consensus revenues estimates for this year and next.) The weekly P/S series was at 2.88 during the December 30, 2021 week, well above the 2.00 peak on the quarterly P/S ratio hit during Q4-1999 (*Fig. 12*). In mid-February, it was still high at 2.29.

(4) *MegaCap-8.* Some of the apparent overvaluation of the S&P 500 is attributable to the MegaCap-8 stocks, which remain relatively expensive. The collective forward P/E of the MegaCap-8 is down to 25.0 from a record-high 38.5 during the August 28, 2020 week (*Fig. 13*). Their collective forward P/S is 4.5 currently, down from a record-high 7.2 during the November 19, 2021 week (*Fig. 14*).

The S&P 500's forward P/E with and without these eight stocks is 18.5 and 17.0. The index's forward P/S with and without them is 2.3 and 2.0.

Valuation III: Adjusting for Inflation. The valuation multiples discussed above are variations of mean-reverting models of valuation. They don't reflect the impact of inflation and interest rates on valuation.

One way to study the relationship between the valuation multiple and inflation is to subtract the annual CPI inflation rate from the nominal earnings yield (i.e., the reciprocal of the P/E based on S&P 500 quarterly reported earnings) to calculate the real earnings yield of the

S&P 500 (*Fig. 15* and *Fig. 16*). The data start in 1935.

The real earnings yield is an eye-opener. Since WWII, there have been 12 bear markets in the S&P 500. The real earnings yield coincidently turned negative during nine of those bear markets. With the benefit of hindsight, we can see that the real earnings yield turned negative during Q3-2021, raising a caution flag about a possible bear market. It was still negative during Q4-2022 at -3.08%.

Calendars

US: Tues: Consumer Confidence 108.5; S&P/CS HPI Composite 20 -0.5%m/m/6.0%y/y; Richmond Fed Manufacturing Index -6; Chicago PMI 45.0; Goods Trade Balance Advance Estimate; Wholesale Inventories 0.1%. **Wed:** ISM M-PMI & Price Index 48.0/45.1; S&P Global M-PMI 47.8; Construction Spending 0.2%; MBA Mortgage Applications; Crude Oil Inventories & Gasoline Production. (Bloomberg estimates)

Global: Tues: Germany Import Price Index -1.5%; France CPI 1.0%m/m/6.2%y/y; France GDP 0.1%/q; France Consumer Spending 0.2%; Italy Industrial Sales; Spain CPI 0.0%m/m/5.9%y/y; Japan Core CPI 3.1% y/y; Japan Housing Starts 1.0% y/y; Canada GDP 0.1%m/m; Australia GDP 0.9%q/q/2.8%y/y; Australia CPI 8.1% y/y; Australia M-PMI 50.1; China Caixin M-PMI 51.3; China S&P Global M-PMI & NM-PMI 51.3/55.0; Wuermeling; Pill; Mann; Nakagawa. **Wed:** Eurozone, Germany, France, Italy & Spain M-PMIs 48.5/46.5/47.9/51.0/49.1; Germany Unemployment & Unemployment Rate 9k/5.5%; Germany Retail Sales 0.2%m/m/-1.8%y/y; Germany CPI 0.6%m/m/8.5%y/y; UK M-PMI 49.2; UK Nationwide HPI -0.4%m/m/-0.9%y/y; Japan Capital Spending 6.9% y/y; Bailey; Nagel; Wuermeling. (Bloomberg estimates)

Strategy Indicators

S&P 500/400/600 Forward Earnings (*link*): Forward earnings fell for all three of these indexes last week. They had risen a week earlier for LargeCap and MidCap for the first time in five weeks. Through the week ending February 23, LargeCap's forward earnings is 0.2% above its 54-week low during the week of February 10, but is down in 15 of the past 21 weeks. MidCap's dropped 0.6% w/w to a 53-week low and has fallen in 20 of the past 23 weeks. SmallCap's fell 0.5% w/w to a 68-week low and is down in 18 of the past 21 weeks.

For a 35th straight week, none of these three indexes had forward earnings at a record high. However, forward earnings remains on a modest downtrend for these three indexes compared to their deep declines during the Great Virus Crisis and the Great Financial Crisis. LargeCap's is 5.7% below its record high at the end of June; MidCap's is 8.0% below its record high in early June; and SmallCap's is 10.8% below its mid-June record. Forward earnings momentum remains near two-year lows. The yearly rate of change in LargeCap's forward earnings was negative for a second straight week, falling to a 24-month low of -1.1% y/y; that compares to a record-high 42.2% at the end of July 2021 and is up from -19.3% in May 2020, which was the lowest since October 2009. MidCap's rate of -0.1% y/y is at a 25-month low, which compares to a record high of 78.8% in May 2021 and a record low of -32.7% in May 2020. SmallCap's rate of -5.0% y/y is at a 28-month low, down from a record high of 124.2% in June 2021; it compares to a record low of -41.5% in June 2020. Analysts' consensus earnings forecasts for 2023 have been heading lower since June. Here are the latest consensus earnings growth rates for 2022, 2023, and 2024: LargeCap (5.5%, 1.3%, and 11.9%), MidCap (16.2, -7.8, 12.3), and SmallCap (6.2, -1.3, 16.4).

S&P 500/400/600 Valuation (*link*): Valuations fell w/w for these three indexes through the February 24 week, but remain near their multi-month highs at the beginning of February. LargeCap's forward P/E slipped 0.5pt w/w to a five-week low of 17.5 and is down from a nine-month high of 18.2 in early February. It's up 2.4pts from its 30-month low of 15.1 at the end of September, which compares to an 11-year low of 11.1 during March 2020. MidCap's forward P/E fell 0.3pt to a four-week low of 14.1, and is just 0.6pt below its recent 10-month high of 14.7. It's now up 3.0pts from a 30-month low of 11.1 at the end of September and compares to a record high of 22.9 in June 2020 and an 11-year low of 10.7 in March 2020. SmallCap's forward P/E fell 0.3pt w/w to 13.7, and is also 0.6pts below its recent 12-month high of 14.3. It's 3.1pts above its 14-year low of 10.6 at the end of September and compares to a record low of 10.2 in November 2009 during the Great Financial Crisis. That also compares to its record high of 26.7 in early June 2020 when forward earnings was depressed. The forward P/Es for the SMidCaps have been mostly below LargeCap's since August 2018. MidCap's P/E relative to LargeCap's has improved from a 23-year-low 28% discount last July to a 19% discount, which is its best reading in 15 months. SmallCap's discount has improved from a 21-year low of 32% last April to 22% last week; that's near its lowest discount in 18 months. SmallCap's P/E had been mostly above LargeCap's since 2003. Looking at SmallCap's P/E relative to MidCap's, it was at a discount for an 89th straight week; the current 3% discount is near its lowest in five months and an improvement from its 20-year-low 9% discount in December 2021.

S&P 500 Sectors Quarterly Earnings Outlook (*link*): Following the Q3-2020 earnings

season when the US economy emerged from the Covid shutdown, analysts began raising their consensus forecasts for future quarters instead of lowering them as is the historical norm. That six-quarter streak of positive revisions throughout the quarter ended during Q1-2022, and the declines began to accelerate considerably beginning with Q3-2022. Analysts expect the S&P 500's earnings growth rate to weaken q/q in Q4 to -0.9% y/y from 4.0% in Q3 on a frozen actual basis and to -3.2% from 4.4% on a pro forma basis. Just four sectors are expected to record positive y/y percentage earnings growth in Q1-2023, up from two sectors doing so in Q4-2022. Here are the S&P 500 sectors' latest expected earnings growth rates for Q1-2023 versus their blended Q4-2022 growth rates: Consumer Discretionary (30.4% in Q1-2023 versus -16.8% in Q4-2022), Energy (18.8, 60.0), Industrials (18.5, 42.1), Financials (5.4, -10.3), Consumer Staples (-3.7, -0.7), Real Estate (-6.4, -1.9), Information Technology (-11.4, -8.4), Utilities (-12.3, -5.8), Communication Services (-12.9, -28.1), Health Care (-18.1, -2.9), and Materials (-32.4, -20.2).

US Economic Indicators

Durable Goods Orders & Shipments (*link*): Durable goods orders pulled back sharply in January after soaring in December, on sharp swings in transportation orders the past two months. *Billings* slumped 4.5% (vs -4.0% estimate), after soaring a revised 5.1% (vs 5.6% preliminary), as transportation orders plunged 13.3% following December's 15.8% spike. Excluding transportation orders, billings rose 0.7% last month after a 0.4% loss in December. Meanwhile, *nondefense capital goods orders excluding aircraft* (a proxy for future business investment) has been moving sideways since reaching a record high last August, though climbed 0.8% last month to within 0.1% of last August's record high. *Nondefense capital goods shipments excluding aircraft* (used in calculating GDP) jumped 1.1% at the start of this year, after contracting 0.7% the last two months of 2022, climbing to a new record high. On a year-over-year basis, core capital goods orders and shipments are up 4.3% and 6.6%, respectively, slowing from their peak rates of 22.3% and 17.7% during April 2021.

Regional M-PMIs (*link*): Four Fed districts (New York, Philadelphia, Kansas City, and Dallas) have reported on *manufacturing activity* for February and show activity contracted for the ninth successive month, though slower than January's pace, rising to -10.9 from January's 32-month low of -12.8. Activity was a mixed bag, as the New York (to –5.8 from -32.9) region contracted at a much slower pace than in January and the Philadelphia (-24.3 from -8.9) and Dallas (-13.5 from -8.4) regions fell at steeper rates. Meanwhile, activity in the Kansas City (0.0 from -1.0) region was flat. *New orders* (-10.1 from -13.5) contracted for

the ninth straight month, though was less negative than in January, with New York (-7.8 from -31.1) billings much less negative than January and Richmond's (-6.0 from -8.0) slightly less negative. Meanwhile, billings in the Dallas (-13.2 from -4.0) region contracted at triple January's rate, while Philadelphia's (-13.6 from -10.9) fell at a slightly faster pace. *Employment* (2.1 from 8.8) continued to expand at a sluggish pace, as hirings in the New York (-6.6 from 2.8) region declined at the fastest pace since June 2020, while employment in the Dallas (-1.0 from 17.6) region moved from expansion to contraction. Hirings at Philadelphia (5.1 from 10.9) factories were half January's pace, while hirings in the Kansas City (11.0 from 4.0) area were faster than January's rate. Looking at *prices-paid* indexes, the New York (45.0 from 33.0), Kansas City (26.0 from 20.0), Philadelphia (26.5 from 24.5), and Dallas (25.1 from 20.5) areas all saw price pressures tighten in February but at different degrees. Looking at their respective record highs, New York's was 86.4 in April 2022, Dallas' 84.1 in November 2021, Philadelphia's 83.6 in November 2021, and Kansas City's 84.0 in October and February 2021. *Prices-received* indexes were mixed: New York's prices-received measure climbed to 28.4 after easing to 18.8 January, which was the lowest since January 2021; it was at a record high of 56.1 in March 2022. In the Dallas region, the measure moved up to 15.8 from 9.9, down from its record high of 51.3 in October 2021. The Philadelphia measure moved down to 14.9 from 29.9 last month and from its record high of 65.8 in November 2021, while Kansas City's (17.0 from 16.0) held steady with January, down from its 60.0 record high in August 2021.

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