MORNING BRIEFING
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On Valuation, Liquidity & Inflation

Check out the accompanying chart collection.

Executive Summary: The S&P 500's forward P/E has sunk practically to its historical average of 15.0. What happens to it next depends much on what happens to the economy. If our growth recession scenario continues to play out (to which we subjectively assign 60% odds), the historical average valuation likely will hold and the S&P 500 drift sideways until climbing again in 2023; if a hard-landing recession scenario unfolds (40% odds), the P/E may sink into the single digits. … On the bright side, the financial markets have plenty of liquidity to buoy valuations. … Also: We look at what inflation has been doing by two different measures, the CPI and PCED, and examine how they differ.

Strategy I: The Valuation Question. The air continued to come out of valuation multiples last week, as inflation remains persistent and interest rates remain elevated.

There's an inverse correlation between the S&P 500's P/E and the CPI inflation rate on a y/y basis (*Fig. 1*). We have quarterly data starting in 1936 for the P/E based on four-quarter trailing earnings and based on monthly forward earnings since January 1979. The CPI inflation rate is available monthly over this period. During periods of falling and low inflation, our composite P/E tends to rise and exceed its historical average of 15.0 (*Fig. 2*). During periods of rising and high inflation, the P/E tends to fall below its historical average.

On Friday, the forward P/E was 15.1, the lowest since April 1, 2020 but at its historical average (*Fig. 3*).

The composite P/E is also inversely correlated with the 10-year bond yield based on data available since 1953 (*Fig. 4*). The correlation isn't as tight as with the inflation rate. The S&P 500 forward P/E peaked last year at 22.7 on January 8. So its drop since then to 15.1 certainly can be explained by the jump in both inflation and interest rates since then.

The question is whether the P/E will hold at its historical average or fall below it. The answer depends on whether the US economy is heading into a hard-landing recession. If it is, then the forward earnings of the S&P 500 will fall along with both forward revenues and the profit margin. In this scenario, the forward P/E would likely fall below 15.0 on its way to the high single digits, as happened during previous recessions.

In our “growth recession” scenario, the PCED inflation rate continues to moderate from 6%-7% during H1-2022 to 4%-5% during H2-2022 and 3%-4% next year and the Fed hikes the federal funds rate two more times, by 75bps at the next FOMC meeting on November 1-2 and by 50bps at the following one on December 13-14. So the terminal federal funds rate range would be 4.25%-4.50%. The 10-year bond yield would peak around 4.00%-4.25%. In this scenario, the S&P 500 forward P/E would remain at or above 15.0, while both forward earnings and the S&P 500 price index would move sideways for a while before resuming their uptrends in 2023.

Our current subjective probability for this scenario is 60%. The odds of an inflationary boom are zero. So the remaining 40% is our subjective probability of a hard-landing recession.

Now let’s review the latest valuation metrics:

(1) *MegaCaps, LargeCaps, and SMidCaps.* At the end of last week, the forward P/Es of the S&P 500/400/600 fell to 15.1, 11.1 and 10.6. The latter two valuation multiples are back down to levels seen during past recessions. The spread between the S&P 500’s forward P/E and those of the SMidCaps (SmallCaps and LargeCaps collectively) has been 5.0 points since late last year (*Fig. 5* and *Fig. 6*). That’s the highest since 2000.

The valuation multiple of the LargeCaps has been boosted by the forward P/E of the eight very high-capitalization stocks collectively dubbed the “MegaCap-8” (*Fig. 7*). The latter has also weighed on the former, as it has dropped from a record high of 38.5 on August 28, 2020 to 22.8 this past Friday. The MegaCap-8 has accounted for around 25% of the market cap of the S&P 500 since mid-2020 (*Fig. 8*). They accounted for 23.1% this past Friday, when the S&P 500 forward P/E was 15.1, or 13.8 without the MegaCap-8 (*Fig. 9*).

(2) *MegaCaps, Growth, and Value*. The MegaCap-8 has accounted for about 50% of the market cap of the S&P 500 Growth index for the past year. The latter’s forward P/E fell to 18.9 on Friday from 28.3 at the start of the year (*Fig. 10*). The S&P 500 Value’s forward P/E fell to 13.0 on Friday, the lowest since April 7, 2020.

(3) *Foreign P/Es.* Previously, we’ve observed that the forward P/E of the S&P 500 Value tends to closely track the comparable valuation multiple of the All Country World ex-US MSCI index (*Fig. 11*). The latter fell to 10.6 on Friday, the lowest since March 23, 2020. Here are the forward P/Es of some of the major MSCI indexes on Friday: US (15.6), Japan (11.6), EMU (10.2), Emerging Markets (10.1), and UK (8.7) (*Fig. 12*). All remain above their pandemic lows in early 2020, except for the UK’s 11-year low.

(4) *Buffett ratios.* The bottom line on valuations based on forward P/Es is that they seem reasonable, on balance, if the economy has a soft landing rather than a hard one. Of course, the valuation of the MegaCap-8 remains relatively rich.

On the other hand, Buffett ratios suggest that stocks remain somewhat overvalued. The ratio of the S&P 500 market cap to actual quarterly revenues, which peaked at a record 2.79 during Q3-2021, fell to 2.33 during Q2-2022 (*Fig. 13*). The comparable weekly series of the S&P 500 stock price index to the forward revenues of the index was down to 2.10 during the week of September 22. Both readings still exceed the 2.00 peak during the tech bubble in the late 1990s.

(5) *Real yield.* Another bearish valuation metric is the real earnings yield, which is S&P 500 reported earnings as a percent of the quarterly average S&P 500 index minus the CPI inflation rate (on a y/y basis using quarterly data based on three-month averages). It was solidly negative at -4.49% during Q2 (*Fig. 14*). In the past, it often bottomed near the end of bear markets.

(6) *Dividend yield.* During Q3-2022, the S&P 500 dividend yield was 1.82%. That's well below the latest yield on three-month Treasury bills (3.46%), two-year Treasury notes (4.12%), and 10-year Treasury bonds (3.67%). If the dividend yield rose to match any of those levels, the stock market would be much lower (*Fig. 15*).

Strategy II: The Liquidity Question. Providing quite a bit of support to valuation multiples is the enormous amount of liquidity in the financial markets. Consider the following:

(1) *Saving.* As Debbie and I noted yesterday, consumers accumulated $2.2 trillion in personal saving over the 31 months from February 2020 (when the pandemic started) through August of this year (*Fig. 16*). As a result, they've reduced their personal saving rate over the past 12 months. We reckon that they still have about $1 trillion of excess saving.

(2) *M2 & demand deposits.* Another measure of liquidity is M2. It has flattened out over the past six months through August, but it remains almost $2 trillion above its pre-pandemic trend line (*Fig. 17*). The demand deposit component of M2 rose to a record-high $5.2 trillion in August. It too remains about $2 trillion above its pre-pandemic trend line.

(3) *Distribution of liquidity.* According to the Fed's Distributional Financial Accounts, over the past 11 quarters (from Q4-2019 through Q2-2022), checkable deposits and currency of

households rose $4.7 trillion to $15.3 trillion, with the bulk of that increase held by households in the top 10% wealth percentile (*Fig. 18*).

(4) *Equity mutual funds.* Equity mutual funds have been sitting on more cash than usual. Morningstar *reports* that cash was at 2.84% at the end of July, up from 1.29% at the end of 2021. "Of the 415 U.S. equity funds covered by Morningstar, 63% have increased their cash allocation since the end of last year. In July 2022, equity funds reported their highest average cash level since March 2020, and before that since February 2016."

US Inflation: The CPI Vs PCED Question. The headline CPI inflation rate tends to exceed the comparable PCED inflation rate (*Fig. 19*). That's even clearer when we compare their core inflation readings because food and energy inflation rates are almost identical in the two (*Fig. 20* and *Fig. 21*).

The big difference between the two is in durable goods, medical care services (including hospitals, physicians, and health insurance), and the weight of rent of shelter:

(1) *CPI vs PCED.* Over the past 12 months through August, the headline CPI and PCED are up 8.3% and 6.2%). Their core rates are up 6.3% and 4.9%.

(2) *Durable goods*. Over the past 12 months through August, the durable goods component of the CPI and PCED are up 7.8% y/y and 5.3% (*Fig. 22*). No one item within the category stands out as a consistent source of the divergence. The CPI tends to be a fixed basket of goods and services and may not reflect substitution into discounted goods as well as the PCED.

(3) *Medical care services.* The CPI reflects out-of-pocket expenses of urban consumers for medical care services, while the PCED also reflects government-subsidized prices for hospital stays and physician services. The same can be said for health care insurance, which is subsidized by employers.

So over the past 12 months through August, here are the CPI and PCED inflation rates for medical care services (5.6%, 2.5%), hospitals (4.1, 3.0), physician services (1.1, 0.4), and health care insurance (24.2, 1.3) (*Fig. 23*).

(4) *Rent.* Rent has a bigger weight in the core CPI than in the core PCED. The weights for rent of primary residence and owners' equivalent rent are 9.3% and 30.5% in the core CPI. They are 4.0% and 12.6% in the core PCED.

Calendars

US: Tues: Job Openings 10.65m; Factory Orders 0.3%; Total Vehicle Sales; API Weekly Crude Oil Inventories; Williams; Mester. **Wed:** Trade Balance -$67.7b; ISM NM-PMI 56.0; ADP Employment 200k; MBA Mortgage Applications; Crude Oil Inventories & Gasoline Production; OPEC Meeting; Bostic. (Bloomberg estimates)

Global: Tues: Eurozone PPI 5.0%m/m/43.2%y/y; Spain Unemployment Rate; Australia Retail Sales 0.6%; Enria; Beerman. **Wed:** Eurozone, Germany, and France C-PMIs 48.2/45.9/51.2; Eurozone, Germany, and France NM-PMIs 48.9/45.4/53.0; Germany Trade Balance €4.0b; France Industrial Production -0.3%; UK C-PMI & NM-PMI 48.4/48.9; European Central Bank Non-Monetary Policy Meeting; Beerman. (Bloomberg estimates)

Strategy Indicators

S&P 500/400/600 Forward Earnings (*link*): Forward earnings rose for two of these three indexes last week: LargeCap's ticked higher after falling a week earlier for the first time four weeks, and MidCap's was down for a fourth time in five weeks. However, SmallCap's forward earnings was up for the fourth time in five weeks. For a 14th straight week, none of these three indexes had forward earnings at a record high. LargeCap's forward earnings is now 1.1% below its record high at the end of June. MidCap's is 0.8% below its record high in early June, and SmallCap's is 1.9% below its record high in mid-June. In the latest week, the yearly rate of change in LargeCap's forward earnings was down to an 18-month low of 10.3% y/y from 10.5%; that's down from a record-high 42.2% at the end of July 2021 and up from -19.3% in May 2020, which was the lowest since October 2009. The yearly rate of change in MidCap's forward earnings eased w/w to an 18-month low of 20.0% y/y from 20.4%. That's down from a record high of 78.8% at the end of May and compares to a record low of -32.7% in May 2020. SmallCap's was unchanged w/w at 16.0% y/y. That's up from a 17-month low of 16.1% at the end of August and down from a record high of 124.2% in June 2021. It had been at a record low of -41.5% in June 2020. Companies have been beating consensus estimates quite handily since the Q2-2020 earnings season, causing analysts' consensus earnings forecasts for 2022 to 2023 to improve instead of decline as is typical, but their forecasts are stalling or heading lower now. Here are the latest consensus earnings growth rates for 2022 and 2023: LargeCap (7.5%, 8.1%), MidCap (15.3, 2.8), and

SmallCap (11.3, 8.3).

S&P 500/400/600 Valuation (*link*): Valuations fell across the board for the sixth time in seven weeks for all three of these indexes. LargeCap's forward P/E fell 0.5pt to a 30-month low of 15.1 from 15.6, which compares to a 16-week high of 18.1 in early August and an 11-year low of 11.1 during March 2020. MidCap's forward P/E was down 0.2pt w/w to a 30-month low of 11.1 from 11.3, which compares to a 16-week high of 13.2 in early August, 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 gave up 0.2pt w/w last week to a 14-year low of 10.6 from 10.8. That's down from a 16-week high of 12.8 in early August 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. LargeCap's forward P/E in February 2020—before Covid-19 decimated forward earnings—was 18.9, the highest level since June 2002. Of course, that high was still well below the tech-bubble record high of 25.7 in July 1999. Last week's level compares to the post-Lehman-meltdown P/E of 9.3 in October 2008. MidCap's P/E was below LargeCap's P/E yet again last week, as it has been for most of the time since August 2018. In contrast, it was last solidly above LargeCap's from April 2009 to August 2017; MidCap's current 26% discount to LargeCap is near its biggest since September 2000. SmallCap's P/E was below LargeCap's for an 111th straight week. That's the longest stretch at a discount since 1999-2002; SmallCap's current 30% reading is near its biggest discount since February 2001. 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 a 68th straight week; the current 5% discount is up from a 9% discount in December but remains near its lows during 2000-01.

S&P 500 Sectors Quarterly Earnings Outlook (*link*): Since the Q3-2020 earnings season, analysts as a whole have been raising their consensus forecasts for future quarters instead of lowering them as is the norm through the earnings warnings seasons. That six-quarter streak of positive revisions throughout the quarter officially ended with Q1-2022, and the declines have accelerated for Q3-2022. In the latest week, the Q3-2022 S&P 500 earnings-per-share forecast dropped 8 cents w/w to $55.58, and is now 6.6% below its $59.49 forecast at the start of the quarter. Analysts expect S&P 500 earnings growth to weaken to 3.1% y/y on a frozen actual basis and 4.6% on a pro forma basis. That's down from Q2-2022's blended actual/estimate of an 9.9% y/y gain on a frozen actual basis and 8.4% y/y on a pro forma basis. Double-digit percentage growth is expected for just four sectors in Q3-2022, and y/y declines are expected for six. That compares to Q2-2022's count of four sectors with triple- and double-digit growth, three with a single-digit gain, and four with a y/y decline. Here are the S&P 500 sectors' latest earnings growth rates for Q3-2022 versus their blended Q2-2022 growth rates: Energy (118.0% in Q3-2022 versus 295.5% in Q2-2022), Industrials (26.4, 31.6), Consumer Discretionary (17.2, -12.1), Real Estate (10.4, 13.1), Materials (2.0, 17.5), S&P 500 (4.6, 8.4), Information Technology (-3.4, 1.5), Consumer Staples (-2.6, 2.2), Health Care (-4.0, 8.7), Utilities (-7.2, -3.7), Financials (-9.2, -19.3), and Communication Services (-15.9, -20.3).

US Economic Indicators

Construction Spending (*link*): Construction spending in August posted its biggest monthly decline since February 2021, dropping 0.7% after contracting 0.6% in July. That followed a nine-month surge of 10.5% to a new record high. Private construction spending contracted 1.8% through the two months through August after soaring 12.0% during the nine months through June to a new record high. Meanwhile, public construction spending fell 0.8% in August after rising six of the prior seven months by 4.6%. Within private construction spending, residential investment declined for the third month by 3.4%, after not posting a decline since May 2020—soaring 59.9% over the 24-month period from then through May of this year to a new record high. The recent three-month drop was driven by a 9.3% plunge in single-family construction spending from its record high, while multi-family construction remained in a volatile flat trend just below last May's record high. Meanwhile, home improvement spending hasn't posted a decline since September 2020, soaring 55.5% over the 23-month period to yet another new record high. Private nonresidential spending edged down 0.1% for the second successive month after a two-month gain of 3.0% to its highest level since March 2020.

US Manufacturing PMI (*link*): ISM's September M-PMI showed manufacturing activity is fast approaching the breakeven point of 50.0, while price pressures continue to ease. Since peaking at 63.7 last March, the M-PMI fell to 50.9 in this September, the lowest since May 2020 during the height of the pandemic. The new orders (to 47.1 from 51.3) measure contracted again after moving into expansionary territory in August, while the production (50.6 from 50.4) gauge held just above the demarcation line between expansion and contraction. In the meantime, the employment (48.7 from 54.2) measure showed factories are cutting payrolls again after hiring at a solid pace in August for the first time since March (56.3). (This index is a poor predictor of BLS manufacturing payrolls data.) The inventories measure remains in a volatile flat trend, rising to 55.5 in September after falling from 57.3 in July to 53.1 in August. There are definite signs that supply constraints are easing, as the supplier deliveries measure continued to retreat from last May's 78.8 to 52.4 in

September—the lowest since the end of 2019. The backlog of orders subindex dropped to 50.9 last month from a recent high of 70.6 last May. Meanwhile, ISM's prices-paid measure eased in September for the fifth month, to a 27-month low of 51.7 from 87.1 in March; it was at 92.1 in mid-2021—which was the fastest since the summer of 1979.

Global Economic Indicators

Global Manufacturing PMIs (*link*): Global manufacturing activity contracted for the first time since June 2020, as orders and production continued to weaken. The JP Morgan Global M-PMI fell for the seventh time this year, from 54.3 in December to 49.8 by September, and only 10 of the 30 countries covered by the survey in September showed an expansion. Here's how September M-PMIs ranked by country/region from highest to lowest: Thailand (55.7), India (55.1), Indonesia (53.7), Australia (53.5), Colombia (52.8), Vietnam (52.5), US (52.0), Russia (52.0), Ireland (51.5), Brazil (51.1), Japan (50.8), Mexico (50.3), WORLD (49.8), Canada (49.8), Greece (49.7), Malaysia (49.1), Netherlands (49.0), Spain (49.0), Kazakhstan (48.9), Austria (48.8), EUROZONE (48.4), UK (48.4), Italy (48.3), China (48.1), Germany (47.8), France (47.7), Turkey (46.9), Czech Republic (44.7), Myanmar (43.1), Poland (43.0), and Taiwan (42.2).

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