



MORNING BRIEFING

November 27, 2023

Update: Another Roaring Twenties May Still Be Ahead

Check out the accompanying chart collection.

Executive Summary: Our Roaring 2020s outlook for this decade centers on the idea that technological innovations such as the so-called BRAIN technologies will be widely adopted by companies, fueling productivity growth that minimizes the economy's major problem of a tight labor market and drives widespread prosperity. The pandemic derailed a productivity boom that started gathering steam in late 2015 and is just this year getting back on track. ... We think the stock market rally that began a year ago reflects the technological revolution at the core of our Roaring 2020s scenario. ... Of course, there are doubters; we address each of their main points below.

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Productivity I: The Doubters. Is the stock market starting to discount our Roaring 2020s scenario? We think so, though we are biased, as that scenario has been our longer-term outlook since August 11, 2020, when we first outlined it in our Morning Briefing titled "Another Roaring Twenties May Still Be Ahead." In our opinion, our upbeat scenario seems more credible now than it did in 2020 when the pandemic was disrupting all our lives.

Nevertheless, we continue to receive pushback from lots of doubters:

(1) *Disrupting productivity.* The doubters claim that the data have yet to convincingly confirm our underlying thesis that technological innovation is already boosting productivity growth and real incomes much as it did during the Roaring 1920s. They note that disruptive technologies often take a while to boost productivity. At first, such technologies perversely may disrupt productivity growth as they're just starting to proliferate. In other words, the transition from old to new technologies may not be a smooth one. The doubters rightly observe that the previous productivity growth boom, during the second half of the 1990s, was also attributable to a technology revolution, yet productivity growth fizzled out during the 2000s through the mid-2010s.

(2) Hard-to-solve labor shortage problem. Our basic premise is that technology solves

economic problems, particularly shortages. The latest (19th) edition of *Economics* (2010) by Paul Samuelson and William Nordhaus teaches students that economics "is the study of how societies use scarce resources to produce valuable goods and services and distribute them among different individuals." This definition hasn't changed since the first edition of this classic textbook was published in 1948.

In my <u>Predicting the Markets</u> (2018), I countered: "I've learned that economics isn't a zerosum game, as implied by the definition. Economics is about using technology to increase everyone's standard of living. Technological innovations are driven by the profits that can be earned by solving the problems posed by scarce resources. Free markets provide the profit incentives to motivate innovators to solve this problem. As they do so, consumer prices tend to fall, driven by their innovations. The market distributes the resulting benefits to all consumers. From my perspective, economics is about creating and spreading abundance, not about distributing scarcity. In other words, don't worry, be happy!"

Our basic assumption is that technology is solving the biggest economic problem we are facing, i.e., a chronic global shortage of labor, by boosting productivity. The doubters doubt that it is doing so or will. The shortage of skilled workers is particularly acute. Currently available technologies aren't up to the challenge of replacing workers or augmenting the skills of available workers. Besides, there are lots of hyped up claims about what new technologies such as artificial intelligence (AI) can do. So say the doubters.

Meanwhile, the labor shortage may be about to be solved by the tsunami of illegal immigrants. However, they are mostly unskilled and straining the resources of state and local governments. While immigration was a source of economic growth in the past (including during the 1920s), this time it might be more disruptive than stimulative.

(3) *The coming debt crisis.* The doubters tend to believe that a much bigger economic problem than the shortage of labor is the looming debt crisis attributable to ballooning federal deficits. They have a good point. US fiscal policy is on a recklessly unsustainable path. However, that's mostly a political problem, which can be solved easily enough if there is enough political will to do so. Unfortunately, it's hard to find any such willingness currently.

Part of the solution to mounting deficits is better-than-expected economic growth with lowerthan-expected inflation. A productivity growth boom can accomplish that remarkable feat. In the not-too-distant future, AI, automation, and robotics will produce more and more of the goods and services currently produced by workers. That may very well generate enough profits to pay for a basic universal income scheme and provide enough tax revenues to put fiscal policy on a more sustainable path.

(4) *Messy climate change transition.* Another major challenge for productivity is the bumpy transition from fossil fuels to renewable sources of energy. The federal government is implementing subsidies and penalties to force the reallocation of capital investments from the former to the latter. Governments have a poor record of allocating resources, especially compared to free markets.

For example, Detroit has responded to the government's pressure by spending lots of capital on EVs only to find that consumers aren't widely embracing this new technology. Government subsidies have stimulated most of the sales of these relatively expensive alternatives to gasoline-powered vehicles (GVs). Perversely, there are enough EVs on the road today to reduce the demand for gasoline, which lowers the price of gasoline and makes EVs an even less compelling alternative to GVs!

Productivity II: Is Tech Ready for Primetime? Jackie and I have been writing about disruptive technologies for some time, usually in our Thursday *Morning Briefing* commentaries. (See our archive of *Disruptive Technologies Briefings*.) The awesome range of futuristic "BRAIN" technological innovations includes biotechnology, robotics and automation, artificial intelligence, and nanotechnology. There are also significant innovations underway in 3-D manufacturing, EVs, battery storage, blockchain, and quantum computing.

Consider the following stats on technology capital spending in the US: High-tech spending on IT equipment, software, and R&D rose to a record \$1.84 trillion (saar) during Q3-2023 (*Fig. 1*). It has hovered around a record 50% of total capital spending in nominal GDP since the pandemic, up from about 25% during 1980 (*Fig. 2*). During Q3-2023, R&D accounted for 20.2% of capital spending in nominal GDP, while software represented 17.2% and information processing equipment 12.1% (*Fig. 3* and *Fig. 4*).

I first started to write about the High-Tech Revolution in 1993. In 1995, I wrote a <u>Topical</u> <u>Study</u> titled "The High-Tech Revolution in the US of @." I argued that technology capital spending was another reason to believe that the productivity growth trend was likely to rise, which implied that inflation could continue to fall even as the unemployment rate fell below levels that many traditional macroeconomists believed might revive inflation. During the second half of the 1990s, productivity growth did increase significantly. However, much of that was attributable to the boom in the output of computers and communications equipment (*Fig. 5*). Of course, spending on software also boomed.

The first wave of the High-Tech Revolution boosted the productivity of the tech sector, which experienced booming demand for hardware and software. However, it had a limited impact on the productivity of other businesses. That's because the gains applied mostly to companies that could replace lots of secretaries on IBM Selectric typewriters with Microsoft Word and lots of bookkeepers with Microsoft Excel spreadsheets. On the other hand, companies using the new technologies needed large IT departments to install and maintain their new PCs and software programs.

In *Predicting the Markets*, I observed: "In the past, technology disrupted animal and manual labor. It sped up activities that were too slow when done by horses, such as pulling a plow or a stagecoach. It automated activities that required lots of workers. Assembly lines required fewer workers and increased their productivity. It allowed for a greater division of labor, but the focus was on brawn. Today's 'Great Disruption,' as I like to call it, is increasingly about technology doing what the brain can do, but faster and with greater focus." That's what the BRAIN technologies do.

As a result, the second wave of the Great Disruption is much more widespread because the associated new technologies available are more powerful, cheaper, more user friendly, and require fewer IT personnel to install and maintain than those of the first wave. For example, thanks to cloud computing, software updates happen automatically without the need to physically install them on each user's computer.

The bottom line is that today's technologies can be used by every sort of business to boost productivity. In this sense, every company is now a technology company no matter whether they supply the technologies or just use them.

Productivity III: The Growth Cycle. In our opinion, the latest productivity growth boom cycle started well before the pandemic, at the end of 2015. During Q4 of that year, the 20-quarter annual average growth rate of productivity was only 0.6%, the slowest pace since the end of 1982 (*Fig. 6*). It almost tripled, rising to 1.6%, through Q4-2019, just before the pandemic. The pandemic at first boosted productivity growth (when layoffs soared), but then depressed it (when quits soared).

During Q3-2023, this measure of productivity growth was back up to 1.8%. We think it is heading to 3.5%-4.5% by the end of the decade. That might seem far-fetched (maybe even delusional), but our heady targets are consistent with the comparable peak growth rates of

the past three productivity boom cycles. And this one has more going for it, in our opinion, as noted above.

The doubters point out that productivity is volatile and prone to significant revisions. They are right about the q/q and even the y/y comparisons, which is why we focus on the 20quarter annual average growth rate in this variable (*Fig. 7*).

Of course, productivity can be revised either up or down. During the late 1990s, it was revised higher, confirming our optimistic view back then. During Q2-2023, it was revised up a tad from 3.5% to 3.6% (saar). During Q3-2023, the initial estimate showed increases of 4.7% q/q (saar) and 2.2% y/y. In other words, the latest two quarters are consistent with the Roaring 2020s scenario.

Productivity IV: Driving Prosperity. Often in the past, we've shown in the past that the data on productivity and real hourly compensation compiled by the Bureau of Labor Statistics (BLS), both measured at a 20-quarter average annual rate, track one another closely (*Fig. 8*). That's because the former drives the latter, as every student of microeconomics knows: Real wages are determined by productivity, i.e., W/P = Z. That's both in theory and in practice, based on our analysis of the data.

Often forgotten is that the price deflator should be the one that reflects the prices received by business employers rather than the one that measures prices paid by consumers. Accordingly, we use the nonfarm business deflator to inflation-adjust hourly compensation; we have long disagreed with BLS's practice of reporting real hourly compensation using the CPI. That measure shows a widening gap between productivity and real hourly compensation starting in the early 1970s (*Fig. 9*). The gap has been widening at a slower pace using the personal consumption expenditures deflator and even less so using the nonfarm business deflator.

By the way, while real hourly compensation growth did stagnate from the early 1970s through the mid-1990s, especially when deflated by the CPI; it mostly has been rising since then to record highs. The claim made by progressives that real wages of workers have stagnated for decades simply is not supported by the data.

In any event, if our Roaring 2020s productivity growth boom unfolds as we predict, then real hourly compensation's growth will also experience a growth boom. The latter is among the best measures of consumers' purchasing power, i.e., the standard of living. A chronic labor shortage that is offset by productivity gains means that real incomes will be driven more by

real wages than by labor force growth. That's bullish for real GDP growth.

It also means that wages will rise faster than prices without triggering a wage-price spiral. The Phillips Curve model is wrong because it fails to recognize the importance of productivity. Consumer prices can disinflate and even deflate in a tight labor market if the labor shortages cause business to boost productivity rather than prices. That's what is happening now. There doesn't have to be an inverse relationship between inflation and unemployment. That's because there is a stronger negative relationship between the unemployment-rate cycle and the productivity-growth cycle (*Fig. 10*). A tight labor market can boost productivity, which allows nominal and real wages to increase while keeping a lid on price inflation.

There is also a strong positive correlation between unit labor costs (ULC), which is the ratio of hourly compensation to productivity, and the CPI headline inflation rate on a y/y basis (*Fig. 11*). That makes sense since P = W/Z = ULC is the simple variation on the equation above. ULC inflation was down to 1.9% y/y during Q3, suggesting that the CPI inflation could fall from 3.2% closer to 2.0%—i.e., the Fed's inflation target—sooner than widely expected.

The bottom line: Productivity drives prosperity and should do so during the Roaring 2020s.

Consumers: They Should Be Less Miserable. So why is the Consumer Sentiment Index so depressed (*Fig. 12*)? It fell to 61.3 in November, well below its average of 82.9 since January 1978. In the past, it was inversely correlated with the Misery Index, which is simply the sum of the unemployment rate and the CPI inflation rate on a y/y basis. The latter was down to a relatively low reading of 7.1% in October, well below its average of 9.5%.

Consumers may be suffering from money illusion. They realize that inflation is moderating, but consumer prices remain much higher than before the pandemic. What they aren't realizing is that their wages have also risen, though not as quickly as prices until this year. Since the start of this year, their wages on the whole have been rising faster than prices. Real wages seem to be back on their uptrend that started in 1995 (*Fig. 13*).

Perhaps the drop in consumers' outlays on gasoline since the summer will cheer them up. The average household's spending on gasoline was about \$1,000 less at an annual rate during September than during June partly; that's because they drove less and partly because the price of gasoline has been falling and continued to do so in October and November (*Fig. 14*).

Strategy: Roaring 2020s Is Buoying Stocks Already. We think our Roaring 2020s scenario explains the stock market rally since October of last year. In our November 3, 2022 *Morning Briefing*, Jackie and I wrote that "AI is gaining momentum" and that "it will lead to a new surge in corporate productivity.

We observed: "Microsoft reportedly is considering adding to the \$1 billion investment it made in OpenAI in 2019, an October 20 *WSJ <u>article</u>* reported. The two companies have preexisting relationships." Microsoft was trading at \$227 per share when we wrote about AI back then. It closed at \$377 on Friday. The AI-related stocks, especially the MegaCap-8— i.e., Alphabet (Google), Amazon, Apple, Meta (Facebook), Microsoft, Netflix, NVIDIA, and Tesla—have been leading the bull market ever since.

By the way, the S&P 500's forward P/E is inversely correlated with the Misery Index (*Fig.* <u>15</u>). The plunge in the latter from 12.7 in June 2022 to 7.1 during October helps to explain why the forward P/E rebounded from 15.3 on October 12, 2022 to 19.0 on Friday. So the stock market also has been rising on the realization that inflation can come down without requiring a significant increase of the unemployment rate.

Calendars

US: Mon: New Home Sales 721k; Dallas Fed Manufacturing Index. **Tues:** Consumer Confidence 101; Richmond Fed Manufacturing Index 1; S&P/CS HPI Composite 20-City Index 4.2%y/y; API Weekly Crude Oil Inventories; Barr; Bowman; Waller. (FXStreet estimates)

Global: Mon: UK CBI Distributive Trades Survey -30; Australia Retail Sales 0.2%; Balz; Lagarde; Ramsden; Bullock. **Tues:** Germany Gfk Consumer Climate -27; France Consumer Confidence 85; Italy PPI; Japan Core CPI 3.4%y/y; Lagarde; Lane; McCaul; Nagel; Adachi. (FXStreet estimates)

Strategy Indicators

Global Stock Markets Performance (*link*): The US MSCI index rose 1.0% last week in its fourth straight weekly gain and moved further away from correction territory to finish at 6.1% below its record high on December 27, 2021. The US MSCI ranked 25th of the 48 global

stock markets that we follow in a week when 33 of the 48 countries rose in US dollar terms. The AC World ex-US index underperformed the US MSCI, as it rose 0.8% and improved to 16.4% below its June 15, 2021 record high. EMU was the best regional performer with a gain of 1.2%, ahead of EAFE (1.0%). EMEA was the worst performer last week with a drop of 0.3%, followed by EM Latin America (-0.1), EM Asia (0.5), EM Eastern Europe (0.6), and BIC (0.7). Argentina was the best-performing country last week, with a gain of 25.7%, followed by Egypt (8.2), Norway (3.1), Pakistan (2.8), and Israel (2.7). Among the 21 countries that underperformed the AC World ex-US MSCI last week, Thailand's 2.6% decline was the worst, followed by those of Hungary (-1.4), Singapore (-1.2), Sri Lanka (-1.1), and Brazil (-0.6). Looking at 2023's performance so far, the US MSCI is up 19.2%, as its ytd ranking remained steady w/w at 12/48. The AC World ex-US's ytd gain of 6.9% is trailing the US's, with 30/48 countries in positive territory. EM Eastern Europe is the best regional performer ytd with a gain of 32.7%, followed by EM Latin America (15.4), EMU (14.7), and EAFE (9.2). The regional laggards so far in 2023: BIC (-2.3), EM Asia (1.6), and EMEA (1.9). This year's best ytd country performers: Argentina (49.9), Egypt (48.1), Greece (41.2), Poland (35.1), and Hungary (32.0). Here are the worst-performing countries of the year so far: Hong Kong (-18.4), Thailand (-17.1), Pakistan (-13.7), Finland (-11.9), and China (-9.8).

S&P 500/400/600 Performance (*link*): All three of these indexes rose last week. LargeCap's 1.0% gain was ahead of the 0.9% and 0.2% gains for MidCap and SmallCap. At Friday's close, LargeCap improved to 4.9% shy of its record high on January 3, 2022, MidCap remained in a correction at 12.0% from its record high on November 16, 2021, and SmallCap edged out of bear market territory to 19.9% from its November 8, 2021 record high. Twenty-seven of the 33 LargeCap and SMidCap sectors moved higher for the week, down from 32 sectors rising a week earlier. MidCap Consumer Staples was last week's best performer with a gain of 2.6%, followed by MidCap Health Care (2.3), LargeCap Health Care (2.2), MidCap Consumer Discretionary (1.8), and LargeCap Consumer Staples (1.4). The biggest underperformers for the week were SmallCap Utilities (-0.9), SmallCap Financials (-0.7), MidCap Utilities (-0.6), SmallCap Communication Services (-0.3), and SmallCap Real Estate (-0.3). Looking at performances so far in 2023, LargeCap, with a gain of 18.7%, remains far ahead of MidCap (5.3) and SmallCap (1.4); 19 of the 33 sectors are higher ytd compared to 13 a week earlier. The top sector performers in 2023: LargeCap Communication Services (50.7), LargeCap Tech (50.4), LargeCap Consumer Discretionary (32.7), MidCap Industrials (19.1), and MidCap Tech (17.9). Here are 2023's biggest laggards: MidCap Utilities (-20.7), MidCap Communication Services (-16.3), SmallCap Utilities (-14.3), SmallCap Health Care (-13.9), and SmallCap Financials (-11.8).

S&P 500 Sectors and Industries Performance (<u>link</u>): All 11 S&P 500 sectors rose last week, and six outperformed the composite index's 1.0% gain. That compares to a 2.2% gain for the S&P 500 a week earlier, when all 11 sectors rose and seven outperformed the index. Health Care was the best performer with a gain of 2.2%, followed by Consumer Staples (1.4%), Communication Services (1.3), Real Estate (1.0), Financials (1.0), and Materials (1.0). Energy was the worst performer, albeit with a gain of 0.2%, followed by Utilities (0.6), Information Technology (0.6), Industrials (0.8), and Consumer Discretionary (0.8). Looking at 2023's performance so far, the S&P 500 is up 18.7% ytd, with just three sectors still outperforming the index and six higher for the year. The best ytd performers: Communication Services (50.7), Tech (50.4), and Consumer Discretionary (32.7). These are 2023's worst performers: Utilities (-11.7), Consumer Staples (-4.6), Energy (-4.1), Health Care (-3.8), Real Estate (-2.1), Financials (3.1), Materials (4.1), and Industrials (8.0).

S&P 500 Technical Indicators (*link*): The S&P 500 rose 1.0% last week and improved relative to its 50-day moving average (50-dma) and its 200-day moving average (200-dma). The index was above its 50-dma for a fourth week after eight weeks below, and was also above its 200-dma for a fourth week after dropping below for the first time in 30 weeks. As for what the dmas themselves have been doing, the 50-dma moved higher for a second week after dropping for eight weeks, and the 200-dma rose for a 26th week in its longest positive streak since its 70-week streak ended in March 2022. The S&P 500 improved to an 18-week high of 4.9% above its rising 50-dma from 4.0% above a week earlier and a 53week low of 5.5% at the beginning of November. For perspective, the latest reading is down from a 20-week high of 5.4% above its (rising) 50-dma in mid-June. Other comparison points include: a four-month low of 10.6% below its (falling) 50-dma at the end of September 2022, a 23-month high of 8.7% above its (rising) 50-dma in August 2022, and a 27-month low of 11.1% below its (falling) 50-dma in June 2022. The index had been trading above its 50-dma from most of 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. Turning to the 200-dma, the price index improved to a 10-week high of 6.5% above its rising 200-dma from 5.7% above a week earlier and a 42week low of 3.1% below its rising 200-dma at the beginning of November. That compares to a 24-month high of 12.4% above its (rising) 200-dma in mid-July. The S&P 500 is well above its 26-month low of 17.1% below its (falling) 200-dma in June 2022 and 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 level of the Great Financial Crisis following the failure of Lehman Brothers, the S&P 500 index was 39.6% below its 200-dma on November

11, 2008.

S&P 500 Sectors Technical Indicators (*link*): Ten of the 11 S&P 500 sectors trade above their 50-dmas, up from nine a week earlier. Energy is now the only sector still trading below its 50-dma. Four sectors have a rising 50-dma, unchanged from a week earlier: Communication Services, Financials, Industrials, and Information Technology. Looking at the more stable longer-term 200-dmas, Health Care moved above in the latest week and joined these six sectors as the only members of the positive 200-dma club: Communication Services, Consumer Discretionary, Financials, Industrials, Information Technology, and Materials. The rising 200-dma club added the Energy sector this week and joined Communication Services, Consumer Discretionary, Industrials, and Information Technology as the only other members.

US Economic Indicators

Consumer Sentiment (link): Sentiment dropped in November for the fourth month, from a 21-month high of 71.5 in July to a six-month low of 61.3 in November, slightly above the mid-month reading of 60.4. The *present situation* component also sank for the fourth month, to 68.3 in November (above the 65.7 mid-month reading), after climbing five of the prior seven months by 16.9 points to 76.5 in July—which was the highest level since October 2021. The expectations component in November dropped to a six-month low of 56.8 (in line with the mid-month reading of 56.9) from July's 19-month high of 68.3. According to the survey, while current and expected personal finances both improved modestly this month, the long-run economic outlook plunged by 15%-to the lowest level since July 2022, as younger and middle-aged consumers registered stronger declines in economic attitudes, while sentiment improved for those 55 and older. Turning to inflation, the one-year expected *inflation rate* shot up from 3.2% in September to 4.2% in October and 4.5% in November the highest since April's 4.7%. It remains well above the 2.3%-3.0% range in the two years prior to the pandemic. The *five-year expected inflation rate* moved up for the second month, from 2.8% in September to 3.2% in November—the highest percentage since March 2011. The November report notes that despite the recent easing in inflation, "consumers appear worried that the softening of inflation could reverse in the months and years ahead."

Durable Goods Orders & Shipments (*link*): *Durable goods orders* contracted 5.4% in October led by a sharp 49.6% drop in volatile civilian aircraft orders and a 3.8% decline in motor vehicle output, reflecting the United Auto Workers strike during the month. *Excluding transportation*, durable goods orders were flat in October after expanding in eight of the first

nine months of this year by a total of 1.6%. Meanwhile, both <u>nondefense capital goods</u> <u>orders excluding aircraft</u> (a proxy for future business investment) and <u>nondefense capital</u> <u>goods shipments excluding aircraft</u> (used in calculating GDP) are stalled just below their record highs during August. Meanwhile, in October, electrical equipment, appliances & components and machinery orders were fractionally below their respective record highs during September and August, while orders for motor vehicle & parts, primary metals, and fabricated metals remained in record-high territory.

Existing Home Sales (*link*): "Prospective home buyers experienced another difficult month due to the persistent lack of housing inventory and the highest mortgage rates in a generation," noted Lawrence Yun, NAR's chief economist. He went on to say, "Multiple offers, however, are still occurring, especially on starter and mid-priced homes, even as price concessions are happening in the upper end of the market." Existing home sales contracted in seven of the past eight months, by 4.1% in October and 16.7% over the period to 3.79mu (saar)-its lowest level since August 2010. Single-family sales dropped in October for the eighth successive month, by 17.6% over the period to 3.38mu (saar), also the lowest since August 2010. Multi-family sales have been in a volatile flat trend around recent lows, falling 6.8% during the two months through October to 410,000 units (saar)-to the bottom of the range. Existing home sales in October fell in three of the four regions during the month and continued to post double-digit declines on a y/y basis across all four regions: Midwest (0.0 m/m & -13.9 y/y), West (-1.4 & -14.8), Northeast -4.0 & -15.8), and South (-7.1 & -14.6). Total *housing inventory* at the end of October was 1.15 million units, up 1.8% from September, with unsold inventory sitting at a 3.6 months' supply at the current sales pace. The median price of an existing home rose for the fourth successive month year over year, to a new all-time high for the month of October-with a typical homeowner accumulating more than \$100,000 in housing wealth over the past three years, according to Yun.

Global Economic Indicators

US PMI Flash Estimates (*link*): "US businesses signaled a further marginal expansion in output during November, with the rate of growth in business activity in line with that seen in October," according to November's flash estimate report. The <u>*C-PMI*</u> was unchanged at October's 50.7 this month, up slightly from the August and September readings of 50.2; it was at a recent high of 54.3 in May. The <u>*NM-PMI*</u> improved slightly for the second month, to a four-month high of 50.8, after falling from 54.9 in May to 50.1 in September. The <u>*M-PMI*</u> was back below the breakeven point of 50.0, slipping to a three-month low of 49.4. The

report noted that "relatively subdued demand conditions and dwindling backlogs led firms to cut their workforce numbers for the first time since June 2020, as service providers joined goods producers in reducing head counts." Turning to pricing, *input cost* inflation rose at the slowest pace in just over three years, as the impact of hikes in oil prices appear to be dissolving within the manufacturing sector. Meanwhile, *selling price* inflation remained subdued relative to the average over the past three years, and consistent with a rate of increase close to the Fed's 2% target.

Eurozone PMI Flash Estimates (link): The November flash estimate shows the Eurozone's downturn continues, though the rate of decline has softened slightly. The Eurozone's C-PMI edged up to 47.1 after falling in five of the prior six months by a total of 7.6 points (to 46.5 from 54.1). The NM-PMI edged up to 48.2 after likewise falling in five of the prior six months, by a total of 8.4 points (to 47.8 from 56.2), and the M-PMI edged up to 43.8 after falling from 48.8 during January to 43.1 during October-marking 17 straight months below the breakeven point of 50.0. Looking at the two largest Eurozone economies, Germany's C-*PMI* edged up to 47.1, after falling in five of the prior six months, from 54.2 in April to 45.9 in October, while Germany's NM-PMI ticked up to 48.7 after falling in four of the prior five months by 9.0 points in total (to 48.2 from 57.2) and <u>Germany's M-PMI</u> climbed for the fourth successive month to 42.3 after falling for six straight months from 47.3 in January to 38.8 by July. Meanwhile, France recorded another steep contraction in November. France's <u>C-PMI</u> ticked down to 44.5 this month after ticking up from 44.1 to 44.6 last month. <u>France's</u> <u>NM-PMI</u> edged up for the second month to 45.3 after falling to 34-month low of 44.4 in September. France's M-PMI was in contractionary territory for the 14th time in 15 months, sinking to a 42-month low of 42.6. The rest of the region also showed a modest rate of decline, though continued to create record jobs growth, contrasting with the picture in France and Germany.

Japan PMI Flash Estimates (*link*): Activity at Japan's private-sector firms stagnated midway through Q4, according to flash estimates, as November's <u>*C-PMI*</u> drop to 50.0 ending a 10-month period of rising activity. Japan's <u>*M-PMI*</u> fell deeper into contractionary territory, sinking from a recent peak of 50.6 in May to a nine-month low of 48.1, while the <u>*NM-PMI*</u> ticked up to 51.7 after slowing from 55.9 in May to 51.6 in October. Turning to pricing, the rate of <u>*input price*</u> inflation eased to a 27-month low during the latest survey period, though remained stubbornly high and well above the long-run series average. Though according to the report, higher prices reflected rising material, fuel and labor costs as well as sustained weakness in the exchange rate.

Germany Ifo Business Climate Index (link): Business sentiment in Germany improved in

November for the third successive month. Klaus Wohlrabe, Ifo's head of surveys, noted that last week's court ruling, impacting government finances, had no visible effect on its survey of some 9,000 company executives "for the time being," even though a quarter of the responses came after the news. While uncertainty has increased somewhat, a clearer picture may emerge in the December survey. German business confidence increased for the third straight month by a total of 1.5 points over the period to 87.3, with the *expectations* component climbing 2.4 points over the comparable period to 85.2. Meanwhile, the current conditions measure rose 0.2 point in November, following a 0.5-point increase in September—the first back-to-back gains in nine months—to 89.4. It was at 88.7 in September—which was the lowest level since August 2020. Looking at the different sectors, sentiment in *manufacturing* saw a slight uptick this month for the third month (to -13.5 from -16.4 in August), due to less skepticism in companies' expectations, which rose 6.5 points (to -23.1 from -29.6) over the three-month period—though remained deep in contractionary territory. The <u>service sector's</u> business climate index weakened slightly to -2.5 this month, after rising in October for the first time in five months by 3.4 points (to -1.5 from -4.9). The current situation component weakened a bit to 12.5 this month from 13.6 last month, while expectations overall remained weak at -16.4, though tourism and hospitality improved. Sentiment in the *trade sector* rose 5.1 points to -22.2, with both the current situation (-10.5 from -16.2) and expectations (-33.1 from -37.6) measures moving higher, driven primarily by the wholesale segment. In contrast, retailers have low expectation for their Christmas business. The <u>construction</u> sector saw its business climate index moving up for the second month to -29.4 from -31.0 in September—which was the lowest reading since January 2009—with the expectations component rising 2.4 points over the period to -41.5. Companies assessed their current situation as somewhat better, increasing for the first time in nine months, by 0.8 point to -16.4.

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