Yardeni Research

January 28, 2025

Morning Briefing

Gray Swan

Check out the accompanying chart collection.

Executive Summary: Chinese firm DeepSeek has taken the evolution of AI to a new level with its cheaper Language Learning Model. As investors scramble to digest the ramifications for stakeholders in US-made AI, Ed and Eric share their perspective. It's not a Black Swan event but a Gray Swan, holding potential positives and negatives. Although it disrupts the AI status quo, it should speed the proliferation of AI and the realization of associated productivity gains. … Also: The stock market's historically high valuation doesn't worry us. Even if the Mag-7's P/Es take a hit owing to DeepSeek, we expect that the P/Es of the S&P 493 could go higher. Earnings growth should support valuations. … And: How DeepSeek might affect the Fed's thinking.

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

Strategy I: The Digital Revolution Is Evolving. DeepSeek is a Chinese AI lab that has rocked the world of artificial intelligence (AI) by developing a competitive Large Language Model, or LLM, that reportedly outperforms ChatGPT but was developed at a fraction of the cost with much less time required to "teach" the program. It also functions with cheaper and less powerful Nvidia GPU chips. And it is available on an open-source basis.

Will DeepSeek cause a bear market? Since the late 1920s, there have been 22 bear markets in the S&P 500 (*Fig. 1*). Over the same period, there have been 17 recessions (*Fig. 2*). In other words, more often than not, bear markets are caused by recessions. And more often than not, bear markets and recessions are caused by the tightening of monetary policy—not because tightening eventually curbs demand, as often assumed, but because tightening triggers a financial crisis that balloons into an economy-wide credit crunch, and that causes a recession (*Fig. 3* and *Fig. 4*).

DeepSeek won't cause the Fed to tighten monetary policy. It won't cause a financial crisis or a credit crunch. It won't cause a recession even if it causes American AI companies to reduce their capital spending on AI infrastructure. Of course, it might have a negative wealth effect on Nvidia's shareholders.

We view DeepSeek as a "Gray Swan" event, a spinoff from the term "Black Swan" event. Black Swan events are unexpected developments with mostly negative consequences. They've been known to cause recessions and bear markets, but not all Black Swans have had negative consequences. Likewise, Gray Swans are unexpected events, but they have both negative and positive consequences.

The negative consequence of DeepSeek is that it challenges the business models of American companies that expected to use their exclusive access to Nvidia's most expensive and powerful chips to dominate and profit from the AI revolution. The good news is that they should be able to follow DeepSeek's lead in lowering the cost of AI infrastructure spending. That should offset some of the potential revenues lost by having to compete with DeepSeek and other AI startups. They will still profit from AI by converting more of their pre-AI products into AI-driven ones. Also good: More competition in the AI economy will give business and individual consumers more bang for their AI bucks.

Previously, we observed that the Agricultural Revolution of the 1700s and 1800s was followed by the Industrial Revolution of the 1800s and 1900s. The Digital Revolution started in the 1950s with IBM's mainframes. During the 1980s, Digital Equipment sold lots of minicomputers. The 1990s and 2000s saw the proliferation of PCs and laptops. During the 2010s, cloud computing caught on, allowing companies to rent software programs that are automatically updated by their vendors. Now, AI is proliferating.

The Digital Revolution is all about data processing, i.e., processing more and more data faster and faster at lower and lower cost. From this perspective, AI is an evolutionary development in the Digital Revolution. AI allows more data to be processed faster than ever before and at a lower cost, as DeepSeek has demonstrated. So much data can be processed that we need LLMs to make some sense of it all and use it to increase productivity.

Strategy II: A Fair Price for the S&P 500? We've been fielding concerns that the stock market is overvalued for at least the past two years. Indeed, valuation multiples tend to ride the escalator up during economic expansions and the elevator down during recessions (*Fig. 5*). Rising bond yields have raised the question of whether the S&P 500's forward P/E ratio has peaked at its current level of 22 and change, suggesting a turning point for US stocks.

The *WSJ* wrote *on Monday* about the worrying fall in the equity risk premium (ERP) (*Fig. 6*). As the 10-year Treasury yield has risen to around 4.5%, it has looked relatively more attractive than the S&P 500's forward earnings yield (which is the reciprocal of the forward

P/E). Coincidentally, Eric wrote a similar story in the *WSJ* in [April 2023](). The S&P 500 has gained more than 46% since, not including dividends.

We haven't been very concerned by the stock market's valuation, and we still are not. We believe the relationship between the S&P 500 forward earnings yield and the 10-year Treasury yield is returning to its historical norm, as opposed to the much of the 21st century when the Federal Reserve depressed rates and bought bonds. Strong expected earnings growth is propelling valuations to justifiable levels, in our opinion. Furthermore, any decrease in the Magnificent-7's P/Es may be made up by rising valuations in the rest of the stock market, i.e., the S&P 493.

Consider the following:

(1) *Fed's Stock Valuation Model*. From 1985 through 2000, the S&P 500 forward earnings yield and the 10-year Treasury bond yield tracked one another relatively closely (*Fig. 7*). They diverged through 2020, mostly because the bond yield fell relative to the forward earnings yield. Bond prices were boosted by the Fed's low-interest-rate and quantitative easing policies during most of that period. The two yields are now equal for the first time since 2022, which means it's more likely that stocks are fairly valued relative to bonds than overvalued (*Fig. 8*). Ed *dubbed* this the "Fed Stock Valuation Model" in 1997.

(2) *Valuation versus earnings.* A low ERP might suggest that valuations need to fall in order to boost the forward earnings yield and make stocks more attractive than bonds.

Valuations typically fall when something in the financial markets breaks due to the Fed's tightening monetary policy, leading to a credit crunch in the real economy. The US economy skirted that scenario during the recent round of tightening. But the advent of DeepSeek raises the question of whether the large sums being dished out by the Mag-7 on data centers, semiconductor chips, and AI models can generate an adequate return on investment. Will all the AI hype that has sent Mag-7 valuations soaring prove to be a dotcom bubble 2.0?

We believe that earnings growth will be the primary driver of stock market returns through the end of the decade. Analysts currently expect S&P 500 companies to grow their earnings at an annual rate of 17.9% over the next five years (*Fig. 9*). While not dissimilar from what was expected in 2000, it's also at a cheaper multiple and in line with pre-pandemic expectations. Investors tend to pay higher prices for stocks with sustained high earnings growth.

The profit margins of the Mag-7 will likely benefit from lower costs as they use AI more efficiently and cost effectively internally, which may net out losses on large capital expenditures. Even if Mag-7's collective forward profit margin falls from its current 25.5%, the S&P 493 will likely benefit from cheaper AI tools and more productive employees, boosting their collective forward profit margin from the current 12.0% (*Fig. 10*). That could help maintain the overall market's valuation, as the forward P/E of the S&P 493 would likely rise even if the Mag-7's falls (*Fig. 11*).

(3) *Fed effect*. Will the Fed officials care about the stock market hullabaloo? Perhaps. On one hand, if stock prices fall enough, they could be concerned about a declining wealth effect weighing on consumer spending. We don't believe this is likely, but it's possible.

The Fed may be more interested in how the vastly cheaper AI model will help permeate AI throughout the economy. If workers can become more productive faster and companies can cut costs quicker, then the Fed has a huge disinflationary tailwind to consider. Fed officials may even say that it means the neutral rate of interest is lower, emboldening them to cut the federal funds rate further.

We, on the other hand, believe that AI-boosted productivity growth would boost real GDP growth and keep inflation subdued. That would imply that interest rates don't need to be lowered, in our opinion. If the Fed lowers interest rates in this scenario, they risk causing a speculative bubble in risk assets. So the outlook is either the Roaring 2020s scenario (to which we ascribe 55% subjective odds) or a Meltup à la the 1990s (25% odds). We don't see the DeepSeek development as a reason to increase our odds of a Stagflationary 1970s scenario (20% odds). At worst, it is a Gray Swan, not a black one.

Calendars

US: Tues: Consumer Confidence Index 106.0; Richmond Fed Manufacturing Index -8; Durable Goods Orders Total, Ex Defense 0.8%/0.4%; S&P Shiller Home Price Index 0.2%m/m/4.1%y/y. **Wed:** Fed Interest Rate Decision 4.50%; Trade Balance -$105.4b; Wholesale Inventories 0.1%; Retail Inventories Ex Autos 0.4%; MBA Mortgage Applications. (FXStreet estimates)

Global: Tues: France Consumer Confidence 90; Spain Unemployment Rate 11.1%; Australia CPI 0.3%m/m. **Wed:** Germany Gfk Consumer Confidence -20; Italy Consumer & Business Confidence 96.0/85.5; Spain GDP 0.6%q/q/3.2%y/y; Japan Consumer Confidence

36.5; BoC Interest Rate Decision 3.00%. (FXStreet estimates)

Strategy Indicators

S&P 500/400/600 Forward Earnings (*link*): During the January 24 week, forward earnings rose simultaneously for all three of these indexes for the seventh time in the past 10 weeks. After doing so for nearly all of 2024, LargeCap's forward earnings rose to yet another record high. MidCap's improved to a 28-month high and is just 0.4% below its record high in early June 2022. SmallCap's rose to an 18-week high to 10.7% below its June 2022 record. LargeCap's forward earnings has soared 22.5% from its 54-week low during the week of February 1, 2023; MidCap's is 8.4% above its 55-week low during the week of March 10, 2023; and SmallCap's is just 3.4% above its 72-week low during the March 17, 2023 week. These three indexes' forward earnings downtrend from mid-2022 to early 2023 was relatively modest compared to their deep double-digit percentage declines during the Great Virus Crisis and the Great Financial Crisis. Here are the latest consensus earnings growth rates for 2024, 2025, and 2025: LargeCap (9.9%, 12.6%, 13.3%), MidCap (-0.7, 13.4, 15.9), and SmallCap (-12.1, 16.6, 18.3).

S&P 500/400/600 Valuation (*link*): Valuations improved again w/w for all three of these indexes from 17-week lows during the January 10 week. LargeCap's forward P/E rose 0.4pt w/w to 22.1 and is now 0.2pts below its 43-month high of 22.3 during the December 6 week. It's up 5.1pts from a seven-month low of 17.0 during the October 27, 2023 week and 7.0pts from its 30-month low of 15.1 at the end of September 2022, which compares to an 11-year low of 11.1 during March 2020. MidCap's forward P/E rose 0.2pt w/w to 16.5 and is now 0.6pts below its 40-month high of 17.1 during the November 29 week. It's up 4.2pts from a 12-month low of 12.3 at the end of October last year 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 edged up 0.1pt w/w to 15.9 and is 1.2pts below its 41-month high of 17.1, also during the November 29 week. It's up 5.3pts from its 14-year low of 10.6 in September 2022 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 26% discount to LargeCap's P/E compares to 22% during the November 29 week, which was the lowest since the March 9, 2023 week and up from a 25-year-high 29% discount during the July 5, 2024 week. It had been at a 19% discount during the March 2, 2023 week, which was near its best reading since October 14, 2021. SmallCap's 28% discount compares to 23% during the November 29 week, which was the lowest since the

March 9, 2023 week and up from a 24-year-low 34% discount during the July 5, 2024 week. That compares to a 20% discount during the March 2, 2023 week; that one was near its lowest discount since August 2021. SmallCap's 3% discount to MidCap's is widening again but remains among the smallest since July 2021. Prior to that, from 2003 to 2018, SmallCap's P/E had been mostly above Midcap's, and both were above LargeCap's.

US Economic Indicators

New Home Sales (*link*): New home sales (counted at the signing of a contract) beat estimates in December, as single-family homes regained momentum as 2024 came to an end, despite rising mortgage rates. *New home sales* jumped 3.6% to 698,000 (saar)—higher than the consensus estimate of 675,000 units—while November sales were revised higher to 674,000 units from the preliminary estimate of 664,000. At December's sales pace, it would take 8.5 months to clear the *supply of houses* on the market, down from November's 8.7 months' supply. Regionally, sales were strong on both coasts, with sales in both the Northeast (41.7%) and West (20.3) posting double-digit gains, while sales in the Midwest (-3.3) and South (-2.1) moved lower. Of the 698,000 *homes sold* in December, 328,000 were completed, 275,000 were under construction, while 95,000 weren't started. Of the 494,000 *homes for sale* during December, which was the highest since December 2007, 118,000 had been completed, 268,000 were under construction, and 108,000 hadn't yet broken ground.

Global Economic Indicators

Germany Ifo Business Climate Index (*link*): "Companies continue to be pessimistic," notes Ifo President Clemens Fuest. German *business confidence* edged up to 85.1 in January, beating the consensus estimate of 84.7, though the index remains near its lowest levels since May 2022—when the country was struggling with an energy crisis. The *expectations* component was a drag on the overall index, sinking to 84.2—its lowest reading since January 2024, while the *current situation* (to 86.1 from 85.1) beat forecasts, climbing to its highest level since August. *By sector*, it was a mixed bag. The *service* sector saw the *business climate* index improve significantly, with *current business* considerably better; while *expectations* in the sector did brighten, companies remained skeptical. The *manufacturing sector* business climate index declined again in January, with companies more skeptical about the coming months, but their appraisal of the *current situation* remains favorable. The *construction sector's* business climate continued to worsen, with *expectations* sinking, though the *current situation* was viewed as slightly better. Meanwhile, trade*'s* business climate index was unchanged, with traders assessing the *current situation* as more positive; however, their *expectations* were slightly more pessimistic.

Contact us by *email* or call 480-664-1333.

Ed Yardeni, President & Chief Investment Strategist, 516-972-7683
Eric Wallerstein, Chief Markets Strategist, 201-661-3575
Debbie Johnson, Chief Economist, 480-664-1333
Joe Abbott, Chief Quantitative Strategist, 732-241-6502
Melissa Tagg, Senior Global Investment Strategist, 516-782-9967
Mali Quintana, Senior Economist, 480-664-1333
Jackie Doherty, Contributing Editor, 917-328-6848
Valerie de la Rue, Director of Institutional Sales, 516-277-2432
Mary Fanslau, Manager of Client Services, 480-664-1333
Sandy Cohan, Senior Editor, 570-228-9102