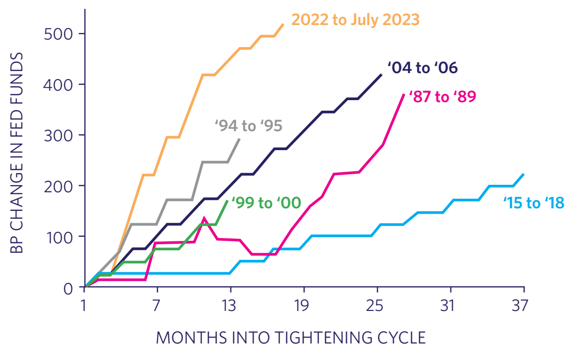
2024 Snapshots

Lyell Wealth Management invests substantial resources in proprietary research in order to distinguish real economic and market data from the narratives pushed by the advertising-driven financial media. We periodically publish a Snapshots issue that compiles charts and tables that we think are interesting and relevant. While there may not be a single unifying theme tying these charts together, the goal is to provide insight into what Lyell Wealth Management believes is relevant and insightful but perhaps not widely publicized.

The Federal Reserve ("Fed") increased interest rates at a historically fast pace from 2022-2023 in order to lower the extreme inflation caused by the pandemic and associated fiscal and monetary policies (Chart 1).

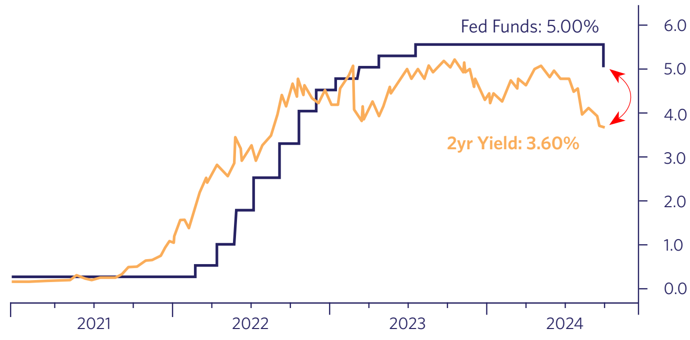
CHART 1
Federal Reserve Tightening Cycles



Source: Evercore ISI

The markets have been signaling for over a year that the Fed should start reducing rates, which it finally started doing this week. One indication is that the 2-Year U.S. yield has been trading below the overnight Federal Funds rate controlled by the central bank since the first half of 2023 (Chart 2).

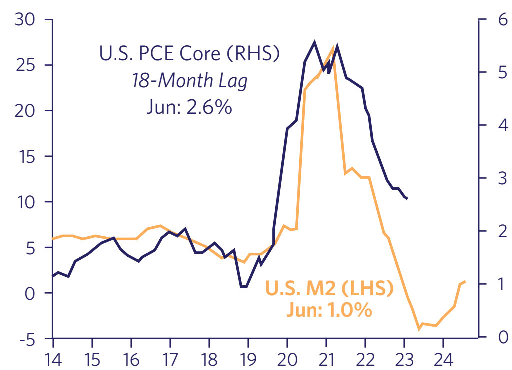
CHART 2
Fed Funds Rate vs. 2-Year Yield



Source: Strategas, Bloomberg, Macrobond

As pandemic bottlenecks have eased and money supply has plummeted, inflation has headed back towards the Fed's 2% target. Since inflation and economic performance considerably lag monetary policy, it appears further declines in U.S. inflation lie ahead in the upcoming months (Chart 3).

CHART 3
Inflation Tracks Money Supply



Source: Evercore ISI, Bureau of Labor Statistics

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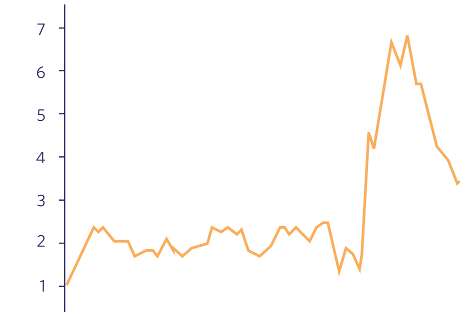
CHART 4

U.S. Consumer Inflation Expectations
1 Year Ahead (U of Mich), Sep: 2.7%

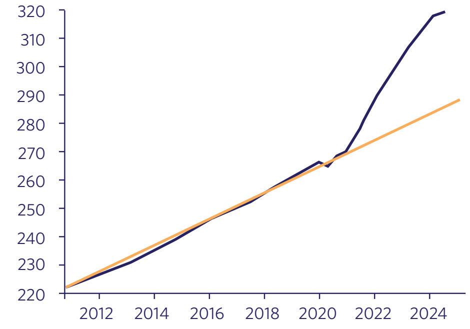
Source: Evercore ISI, University of Michigan

CHART 6

U.S. CPI CORE
Y/Y % Aug: 3.3%



U.S. CPI CORE
Aug: 319.8



Source: Evercore ISI

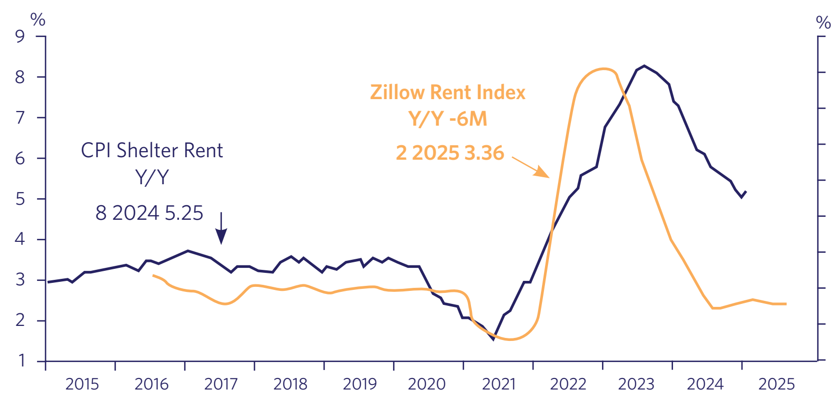
Psychology is a critical factor affecting inflation, as consumers' spending behavior is affected by their view of future versus current prices. The Fed has been encouraged by expectations falling back to the pre-pandemic range (Chart 4).

The government frequently uses stale information in its official data releases. The Bureau of Labor Statistics' ("BLS") CPI index uses data that is 6-7 months old, while a private company, Zillow, captures real-time transactional statistics. Since shelter costs represent approximately one-third of the overall CPI measurement, accurate data would be useful. Zillow and other real-time data sources indicate that actual rent growth is substantially lower than that incorporated in the BLS' CPI data (Chart 5).

Although many Americans view "inflation" as a major issue, their complaint is really about "high prices." Inflation is in fact normalizing, but there has been no giveback of the pandemic-era price spikes as consumers feel the cumulative impact of prices far above trend (Chart 6).

CHART 5

U.S. CPI Rents Y/Y vs Zillow Rent Index Y/Y

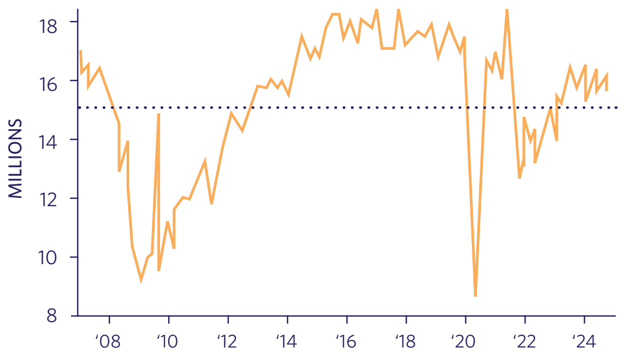


Source: Strategas, Zillow, Bureau of Labor Statistics, Macrobond

Higher interest rates have materially impacted certain sectors of the economy. Car sales have struggled as auto-financing costs have skyrocketed, and heavy truck orders are exhibiting similar weakness (Charts 7 and 8).

CHART 7

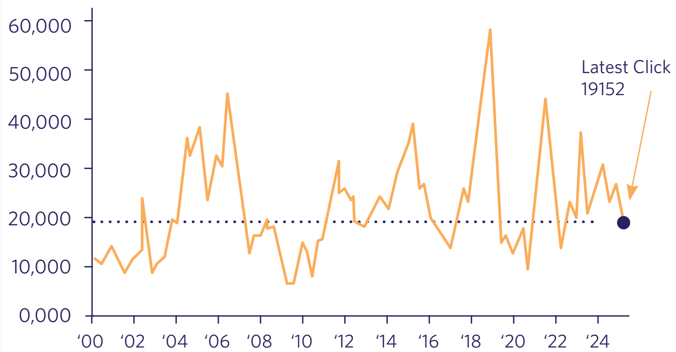
U.S. Vehicle Sales | Aug 15.1 e



Source: Evercore ISI

CHART 8

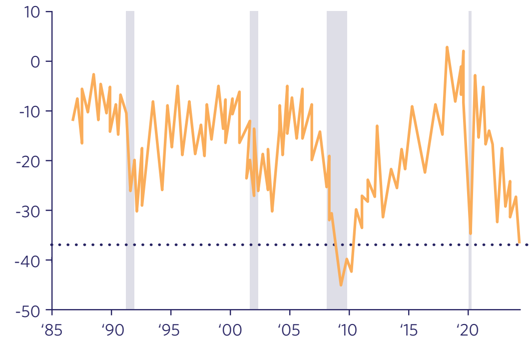
North American Heavy Truck Orders
SA by EVRISI | 3 Mo. Avg. Aug: 19231



Source: Evercore ISI

CHART 9

U.S. Small Business Trends (NFIB)
Firms Reporting Profits Improving | Aug: -37%



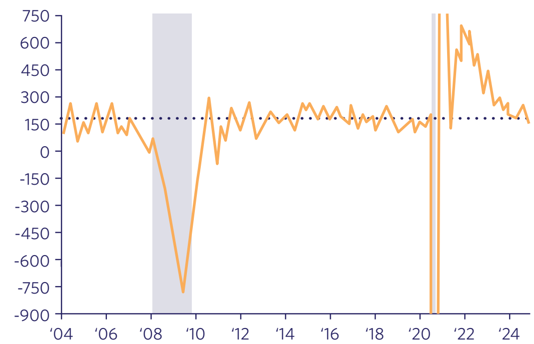
Source: Evercore ISI, National Federation of Independent Businesses

In addition to the higher rates, small businesses are also being pinched by stressed consumers, minimum-wage requirements, and increased regulatory costs. Survey data by the National Federation of Independent Businesses reports widespread pessimism including a plunge in those reporting higher profit trends (Chart 9).

Since 2022, the Fed's primary objective has been to reduce inflation by cooling the economy. One indicator of its success is that changes in U.S. payroll employment has moved back to pre-pandemic levels (Chart 10).

CHART 10

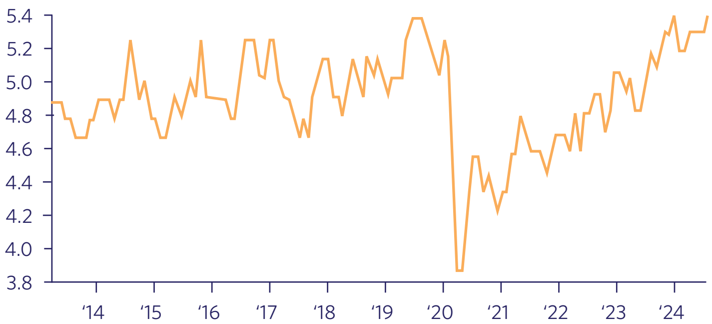
U.S. Payroll Employment
3 Mo. Avg. M/M Ch. | Jul: 170k



Source: Evercore ISI, Bureau of Labor Statistics

CHART 11

Multiple Jobholders as a Percent of Employed



Source: Wall Street Journal, Federal Reserve Bank of St. Louis

Much of the recent job creation has been in part-time work, as multiple jobholders as a percentage of overall employment are back to pre-pandemic highs (Chart 11).

Although the higher interest rates have hurt certain sectors, the overall U.S. economy has held up pretty well so far. Over the last year, U.S. real (inflation-adjusted) wages and salaries have increased almost 2% while real consumer spending has grown by almost 3% (Chart 12).

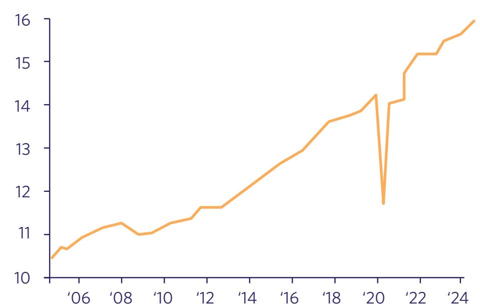
CHART 12

U.S. Real Wages & Salaries

Jul: $10.03

U.S. Real Consumer Spending

Jul: $15.87

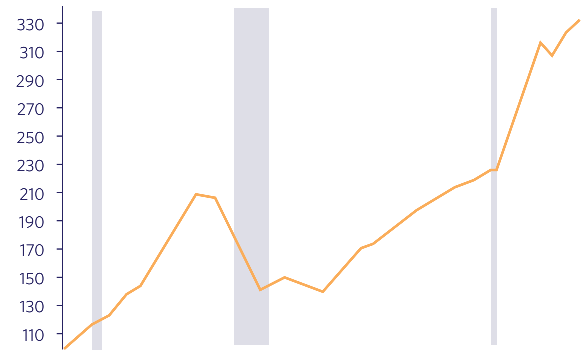


Source: Evercore ISI, Bureau of Economic Analysis

CHART 13

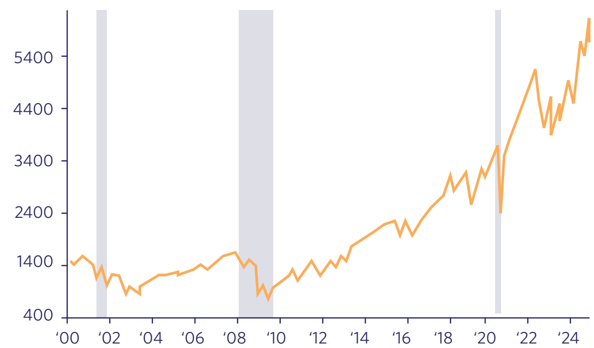
U.S. House Price (Case-Shiller)

Jun: 330.2



S&P 500

Aug 27: 5601.7 e



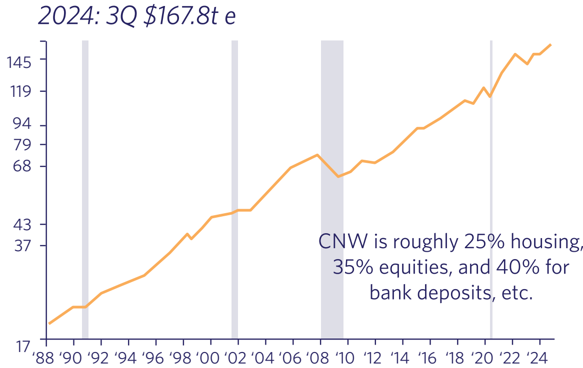
Source: Evercore ISI, Case-Shiller, Standard & Poor's

U.S. home prices and the stock market are at or near all-time highs (Chart 13), which translates into record highs for consumer net worth (Chart 14).

CHART 14

U.S. Consumer Net Worth

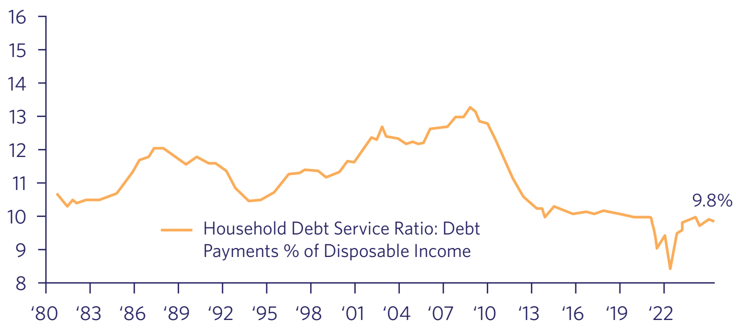
2024: 3Q $167.8t e



Source: Evercore ISI

CHART 15

Household Debt Coverage Is Low Relative to Income (%)



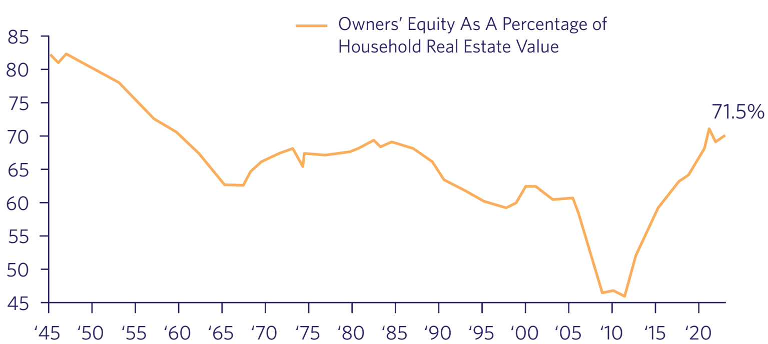
Source: Bespoke Investment Group

Household debt payments as a percentage of disposable income are near multi-decade lows, providing homeowners with ample ability to keep spending (Chart 15).

High home prices have translated into owners' equity as a percentage of household real estate value being over 70%, which is the highest since the 1950s (Chart 16).

CHART 16

Mortgage Debt is Less than 30% of Household Real Estate Assets

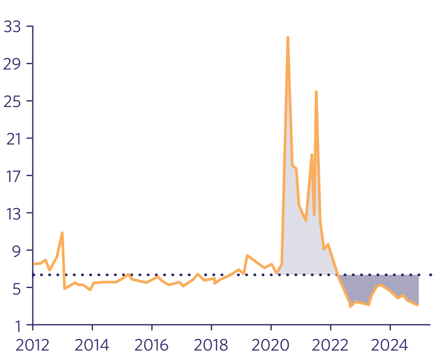


Source: Bespoke Investment Group

CHART 17

U.S. Personal Saving Rate

Jul: 2.9%

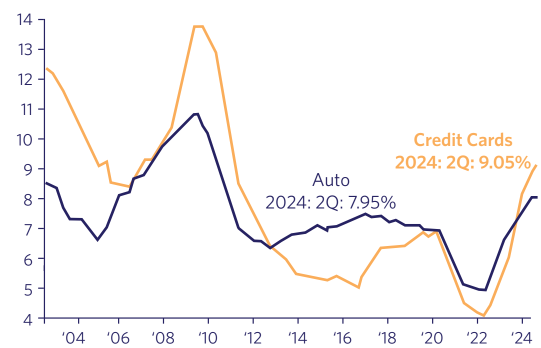


Source: Evercore ISI, Bureau of Economic Analysis

The wealth effect from higher stock and home prices has supported spending as consumers dip into savings accumulated during the pandemic (Chart 17).

CHART 18

U.S. New Delinquent Loan Balances 30+ Days



Source: Evercore ISI, Wall Street Journal

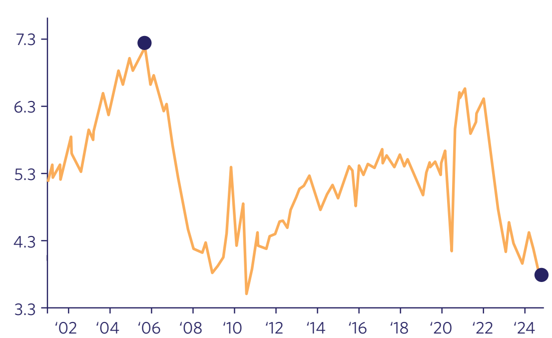
It is clear that the U.S. is bifurcated as those with assets continue to prosper, while those in the bottom half economically struggle. Credit card and auto loan delinquencies signal increasing distress (Chart 18).

A significant support under home prices has been that the higher rates on new mortgages have kept some existing owners in their current homes. Having locked in fixed rate mortgages below 4.0% in recent years, potential trade-up buyers couldn't or wouldn't surrender these low rates for the Fed-induced higher ones. This has resulted in the residential housing market suffering from inadequate supply available for sale which has depressed the number of existing home sales (Chart 19).

CHART 19

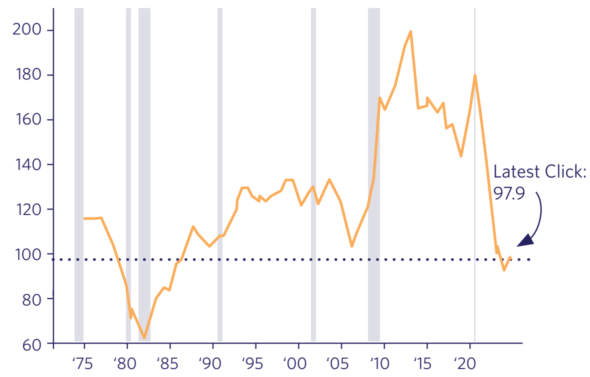
U.S. Existing House Sales

Aug: 3.73 e



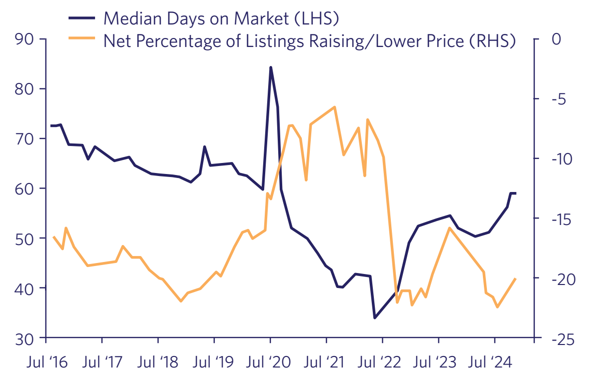
Source: Evercore ISI, National Association of Realtors

CHART 20
U.S. Housing Affordability Index | SA by EVRISI
3 Mo. Avg. Aug: 98.7 e



Source: Evercore ISI

CHART 22
Realtor.com Listings (SA by Bespoke)

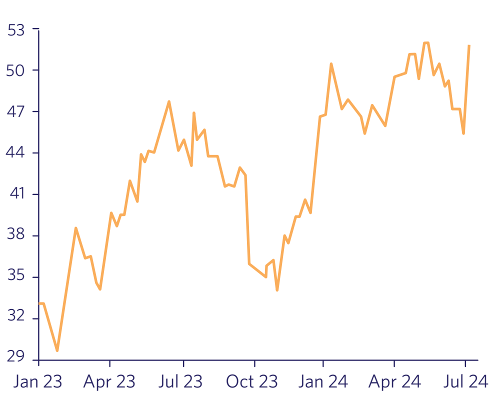


Source: Bespoke Investment Group, Realtor.com

The flip side to the benefits enjoyed by existing homeowners is that housing affordability for new buyers is at dire levels last reached in the 1980s (Chart 20).

While home prices typically appreciate as mortgage rates drop, this cycle could play out differently. As rates for new mortgages decline, new home construction should accelerate as affordability improves and demand increases. Homebuilder optimism is already improving after the recent decline in mortgage rates (Chart 21). However, in this cycle we could see a significant amount of supply come onto the market as existing owners seek to trade up or re-locate. This scenario wouldn't see housing prices crash but could result in a better equilibrium between supply and demand. The single-family market has been normalizing after the 2020 home buying frenzy as median days on the market is creeping up and the net percentage of listings lowering prices is near pre-pandemic levels (Chart 22).

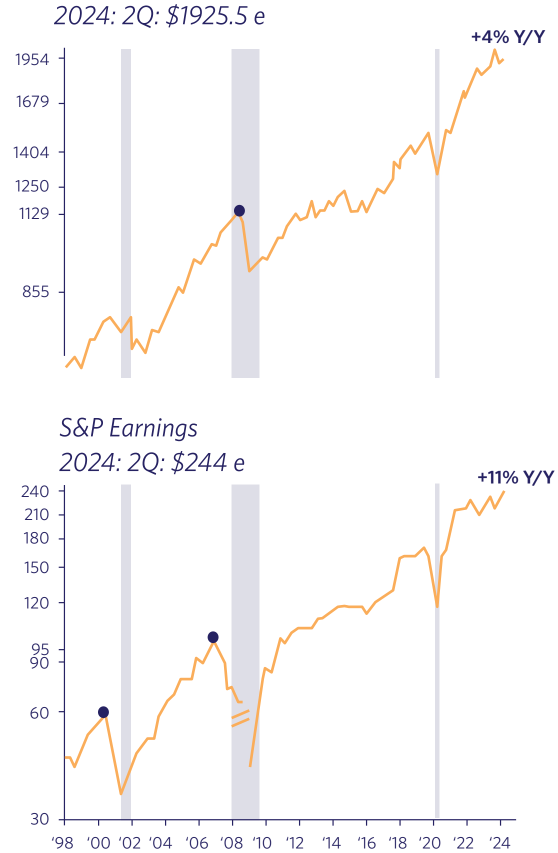
CHART 21
EVRISI Homebuilders Survey
0 = Weak, 100 = Strong | Aug 20: 51.6



Source: Evercore ISI

The largest global companies in the S&P 500 have navigated the Fed's restrictive period well in aggregate. Over the past year, S&P revenues have increased 4% and earnings by 11% (Chart 23).

CHART 23
S&P Revenues
2024: 2Q: $1925.5 e

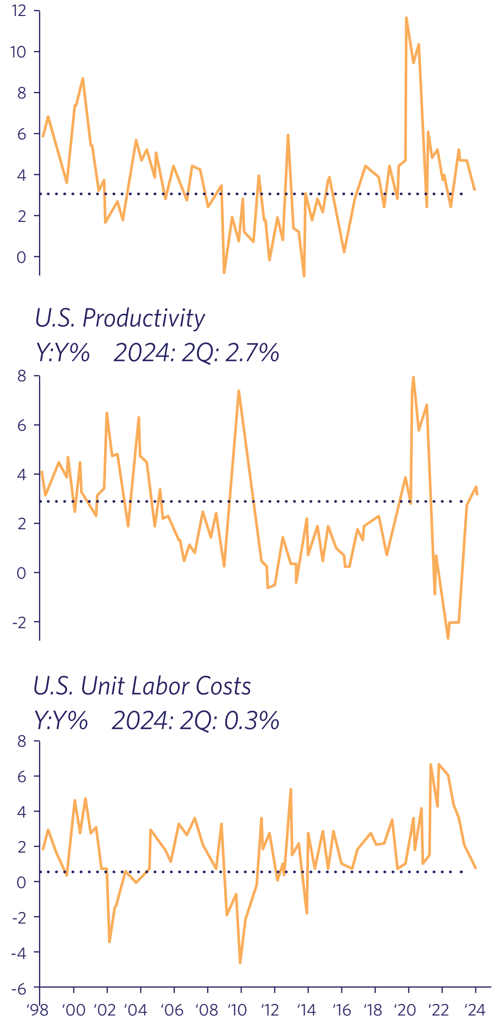


Source: Evercore ISI, Standard & Poor's

CHART 24

U.S. Compensation per Hour

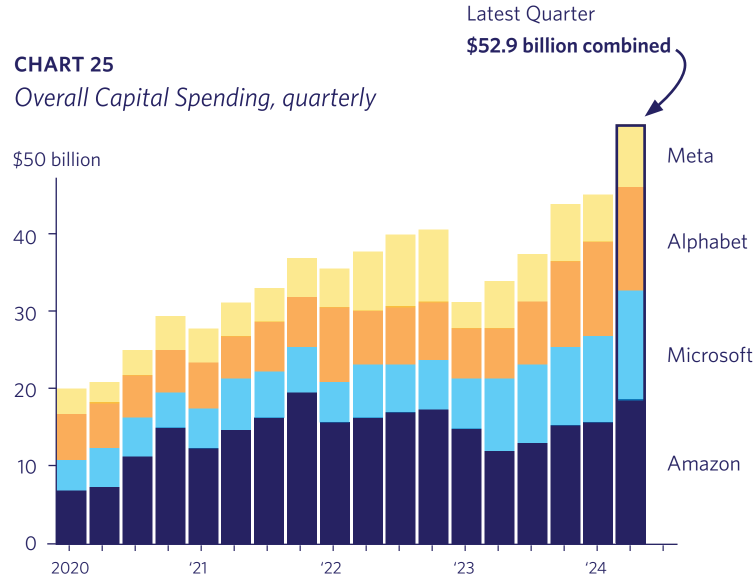
Y:Y% 2024: 2Q: 3.1%



Source: Evercore ISI, Bureau of Labor Statistics

CHART 25

Overall Capital Spending, quarterly

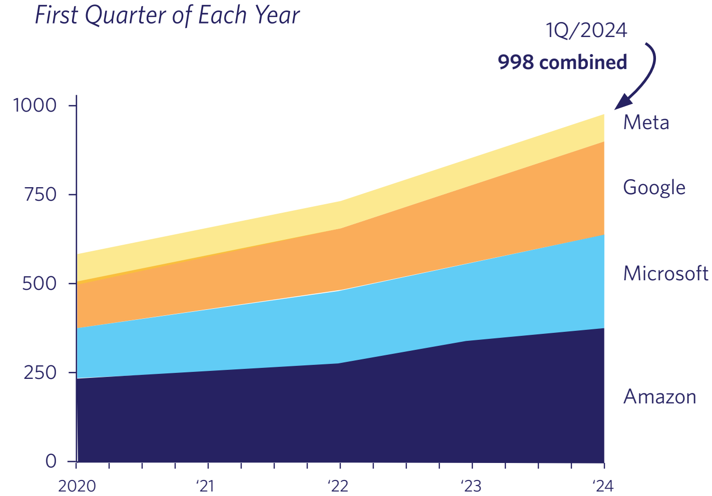


Source: Wall Street Journal

Oracle founder and Chairman Larry Ellison stated this month that he expects that the company will have 1,000 to 2,000 data centers within a decade to handle AI workloads, up from its existing 162 data centers. The number of data centers owned by the largest tech companies has almost doubled in just the past four years (Chart 26).

CHART 26

Estimated Number of Data Centers as of the First Quarter of Each Year



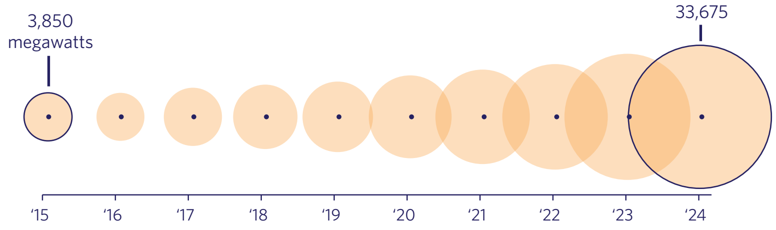
Source: Wall Street Journal, Dell'Oro Group

Corporate profits and margins have been bolstered by declining compensation per hour and unit labor costs, resulting in large productivity gains (Chart 24).

Lyell Wealth Management has shared our views on AI in prior Perspectives, but the full bore commitment by the largest tech companies needs to be appreciated. The CEOs of Microsoft, Alphabet (Google), Meta (Facebook), Amazon, and others, view the risks of under-investing in this AI opportunity as higher than those from over-investing. The quarterly capital spending from Meta, Alphabet, Microsoft and Amazon has more than doubled over the past four years and most of this is dedicated to AI (Chart 25).

CHART 27

Commissioned Power for U.S. and Canada Data Centers, Yearly



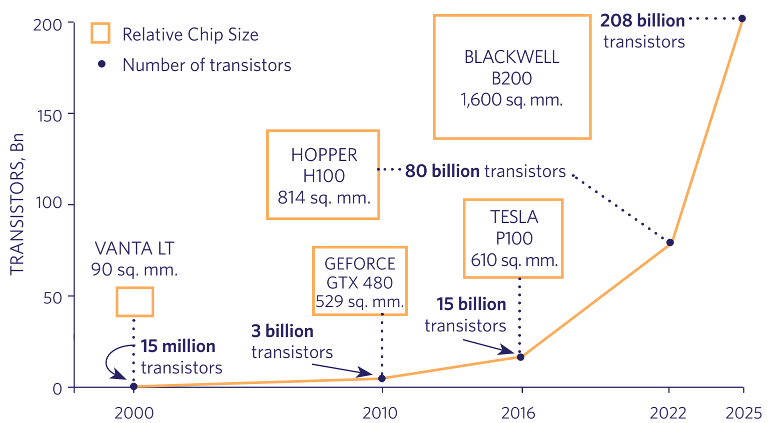
Source: Wall Street Journal, datacenterhawk

There is a growing recognition that AI is going to need a significant increase in power availability. Even before much of the AI build-out has occurred, commissioned power for U.S. and Canadian data centers has increased almost ten-fold in the last decade (Chart 27).

Intel's co-founder Gordon Moore famously observed in 1965 that the number of transistors on a single chip would double every two years at minimal costs. The sophistication and capability of semiconductors have expanded to incredible levels. Nvidia's newest chip, Blackwell B200, has 208 billion transistors as compared its prior generation's Hopper H100 with 80 billion. For reference, Nvidia's Vanta LT chip in 2000 had 15 million transistors (Chart 28).

CHART 28

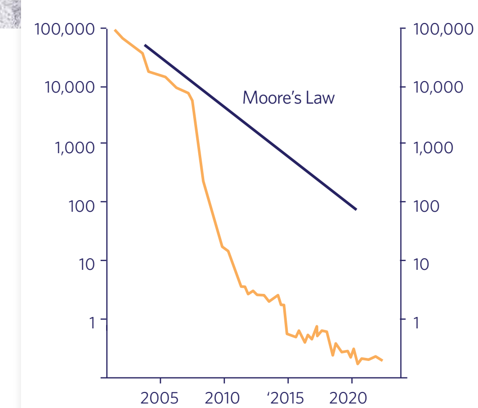
Select Nvidia Chips, by Year of Release and Number of Transistors



Source: Wall Street Journal, Nvidia, TechPowerUp

CHART 29

Cost per Human Genome



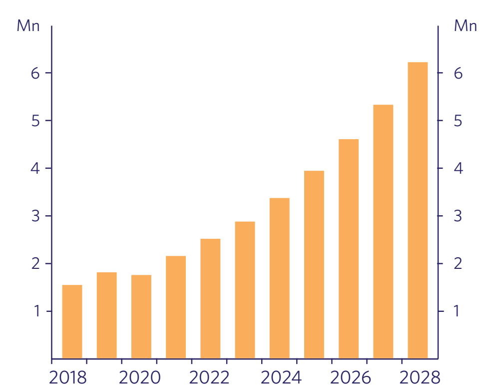
Source: Alpine Macro,
National Human Genome Research Institute

While Moore's Law is widely appreciated, it is less well known that the cost to sequence a complete human genome has declined 3x faster than Moore's Law. What cost $2.7 billion by the Human Genome Project in 2003 can today be done for $500. Innovation in genetic therapeutics and novel delivery mechanisms appears to have us on the cusp of discovering cures for many diseases and disorders to prolong life and vitality (Chart 29).

Another medical development is that the number of robot- and computer-assisted surgeries is increasing at a rapid pace. The expansion of advanced technology to more medical procedures seems likely to drive better outcomes (Chart 30).

CHART 30

U.S.: Number of Robot and Computer Assisted Procedures



Source: Alpine Macro, Access iData

The U.S. public sector has been exhibiting its own exponential growth. It took the United States 232 years to accrue sovereign debt of $10 trillion and another 13 years to accumulate the next $20 trillion of debt. Interest on the federal debt now exceeds $1 trillion per year and surpasses defense spending. The U.S. is adding to its debt at an unsustainable pace (Table 1).

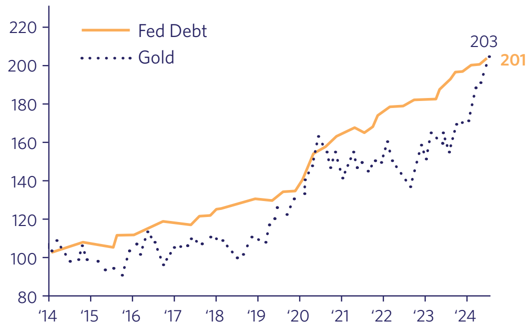
TABLE 1
Time Required to Reach Total U.S. Debt Levels

Of:		
$10 Trillion	232 Years	
$20 Trillion	9 Years	
$30 Trillion	4.5 Years	
$31 Trillion	8 Months	Six months on average to reach each additional trillion in debt from $31 - $35.
$32 Trillion	8 Months	
$33 Trillion	3 Months	
$34 Trillion	3 Months	
$35 Trillion	7 Months	
Latest Level	**$35.27 Trillion**	

Source: Strategas, U.S. Department of the Treasury

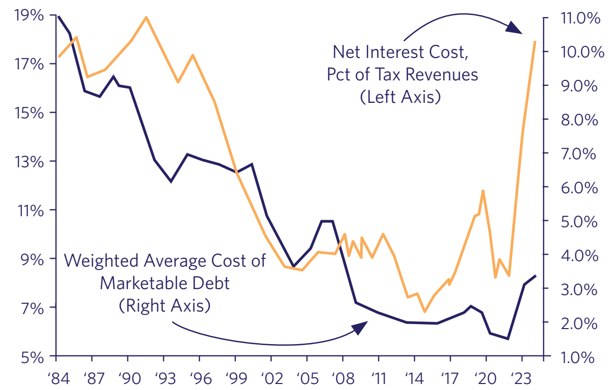
It is interesting to note how closely the price of gold has tracked the federal public debt outstanding over the past decade (Chart 31).

CHART 31
Federal Public Debt Outstanding vs. Gold (Indexed to 100, 5/30/14)



Source: Strategas, U.S. Department of the Treasury, Factset

CHART 32
Net Interest Cost & Weighted Average Cost of Marketable Debt

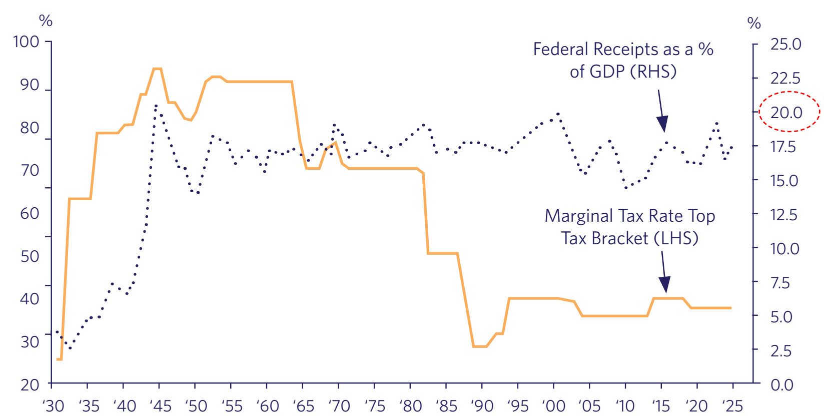


Source: Strategas, U.S. Department of the Treasury

The U.S. government now pays net interest as a percentage of tax revenues at a level near the 1980s, when interest rates were much higher. Unless interest rates decline to the low levels experienced in the 2010s, (a scenario that we believe is unlikely), corrective action is likely to be needed (Chart 32).

While politicians spar over raising or lowering income taxes, modern history shows that marginal tax rates don't have a major impact on federal receipts. Higher personal income tax rates historically have not resulted in the government obtaining more than 20% of GDP. Note that an argument can be made that lower rates generate higher GDP with therefore more income to tax (Chart 33).

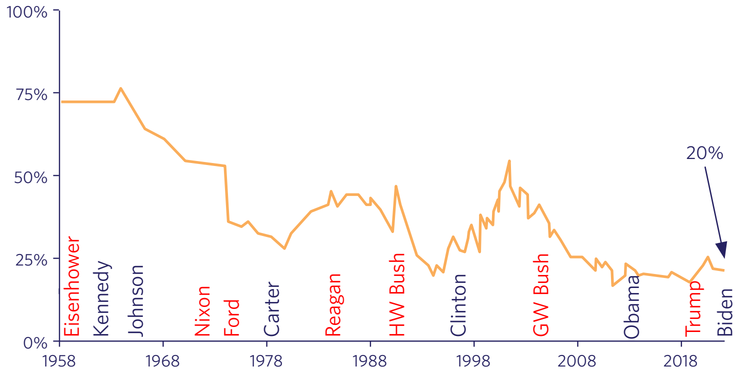
CHART 33
U.S. Marginal Tax Rate (Top Tax Bracket) vs. Federal Tax Receipts as a % of GDP



Source: Strategas

CHART 34

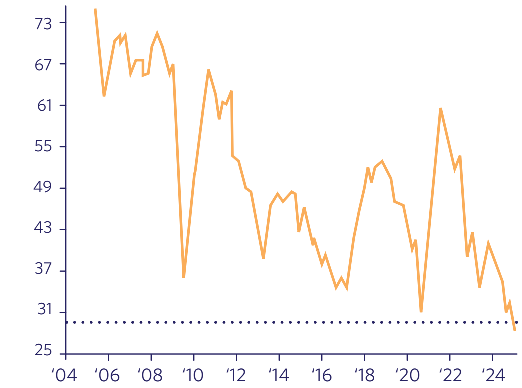
Public Trust in Government Nearing Historic Lows
(% who trust the govt in Washington always or most of the time)



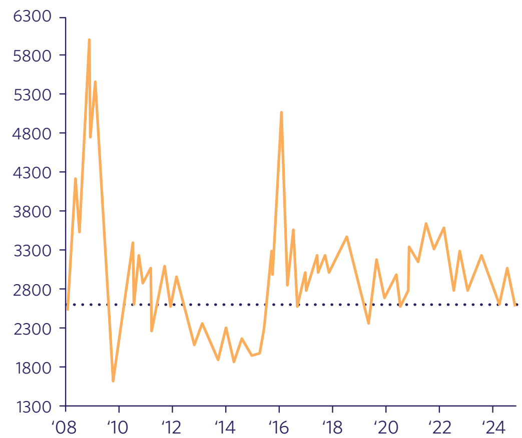
Source: Strategas

CHART 35

EVRISI Survey of China Sales
4 Wk. Avg. | Sep 13: 29.6



SHCOMP | Sep 13: 2704.1



Source: Evercore ISI

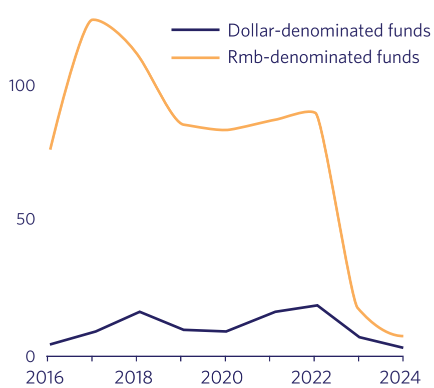
Public trust in the U.S. government is near all-time lows (Chart 34).

While the U.S. continues to navigate economic crosscurrents in a growing economy, China remains stuck in the doldrums. The Chinese Communist Party's emphasis on national security versus growth and the aftereffects from a multi-decade housing bubble have resulted in a weak Chinese economy. Surveys of companies who sell into China are plumbing new lows, while the Shanghai Composite is trading at 2007 levels (Chart 35).

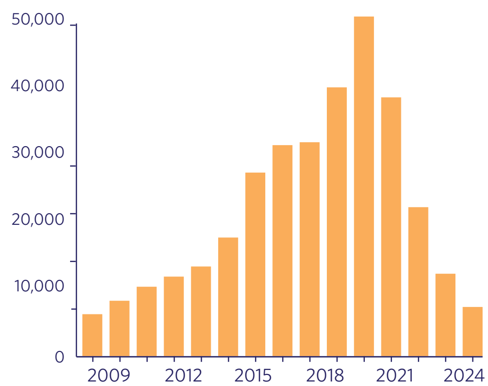
Not surprisingly, institutional entrepreneurship in China is disappearing. Overseas and domestic Chinese VC fundraising has essentially ceased, and new Chinese venture company formation has collapsed (Chart 36).

CHART 36

Aggregate Amounts in $bn



Companies Founded

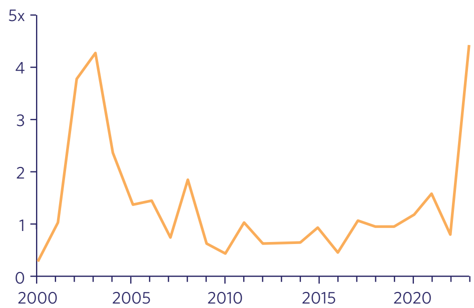


Source: Financial Times, Prequin, IT Juzi

The venture environment in North America is also struggling, although it is still very viable and much more robust than in China. A hostile Federal Trade Commission ("FTC") has put a chill on venture M&A and the IPO market is not currently receptive to more speculative companies. This has resulted in few VC exits and little in the way of distributions to their Limited Partners ("LPs"). Institutional LPs often use the distributions from older VC funds to finance capital calls on new ones. With the spigot largely closed on venture returns, this can reduce the ability to make new fund commitments. The ratio of new capital calls to returned capital via distributions is at the highest level since the dot.com bust (Chart 37).

CHART 37

Cash Crunch in Venture Capital



Source: Wall St. Journal, Silicon Valley Bank

The Fed is at a transition point, as it has become more focused on the "full employment" part of its dual mandate. It views price stability as having essentially been achieved. In recent easing cycles the Fed has had to move abruptly with large rate decreases, because economic conditions worsened significantly, and it needed to quell panic. This happened in 2000, 2008 and 2020. Although Lyell Wealth Management thinks that the Fed should have started easing sooner than September 2024, the U.S. economy, employment market and consumer seems sufficiently strong to avoid a recession. The Fed may in fact achieve a "soft landing."

We are monitoring the upcoming November elections and are pleased that our portfolios don't appear over-weighted to one particular outcome. We think the more extreme tax proposals are campaign rhetoric, as both parties have plenty of wealthy capitalist supporters. As always, we are keeping client portfolios positioned with adequate liquidity to withstand any volatility that arises.

While much of the media is devoted to politics, drafting this Perspective reminded us of the incredible things underway in the private sector. We view the AI investment cycle as very real, long-lasting, and still early. The innovation should create higher levels of productivity and growth that can benefit a large swath of society. Perhaps the life sciences breakthroughs will be even bigger. Extending human longevity, while diagnosing and curing currently fatal conditions, seems highly likely. We come away optimistic and hopeful.

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