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Mega Forces Imply a New Regime

February 11, 2025

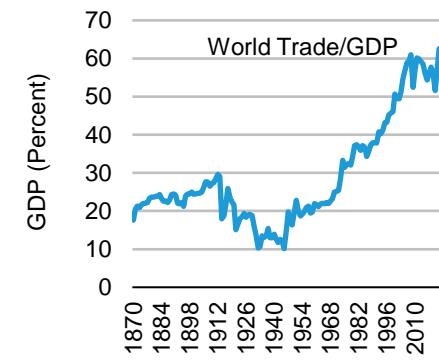
Inigo Fraser Jenkins

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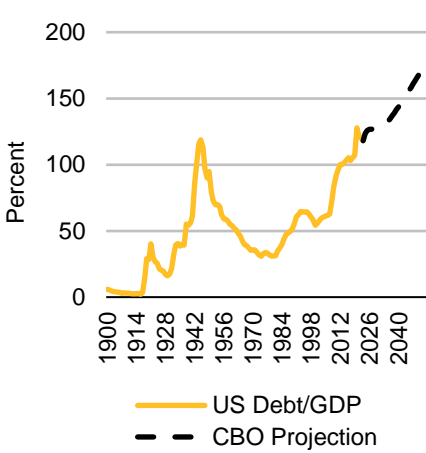
Mega Forces Imply a New Investment Regime

Deglobalization*



- Fragmented labor, supply chains, constraints to growth

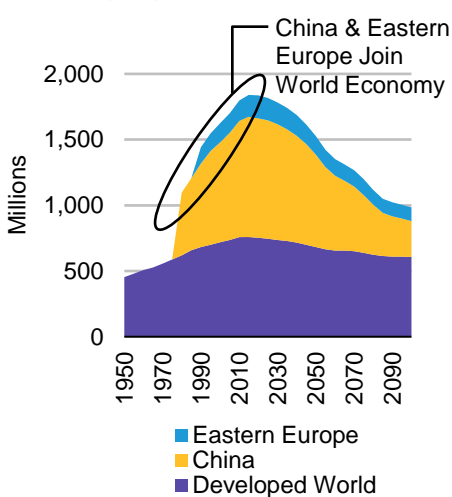
Public Debt



- Inflation as the least painful path?

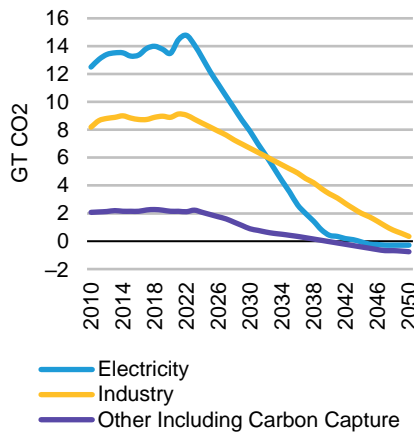
Demographics†

Working-age population



- Smaller labor force wage bargaining power? Greater cost of care

Energy Transition Will Take Much Longer



- Higher volatility of inflation

Bottom line: Higher equilibrium inflation, lower real growth

Historical analysis and current forecasts do not guarantee future results. *Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.

†The shaded areas represent size of population aged 20–65 in regions shown.

Left display as of December 31, 2021; middle right display as of December 4, 2024

Source: www.ourworldindata.org, Thomson Reuters Datastream, UN Population Division, The World Bank and AB



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How Does AI Change Investing?

No one has a clue...but here is a starting point for discussion

Positive Forces for Investors

- Could lead to greater productivity and higher growth
- Corporates in the driving seat—perpetuates high margins?

Markets tend to price these forces quickly

Negative Forces for Investors

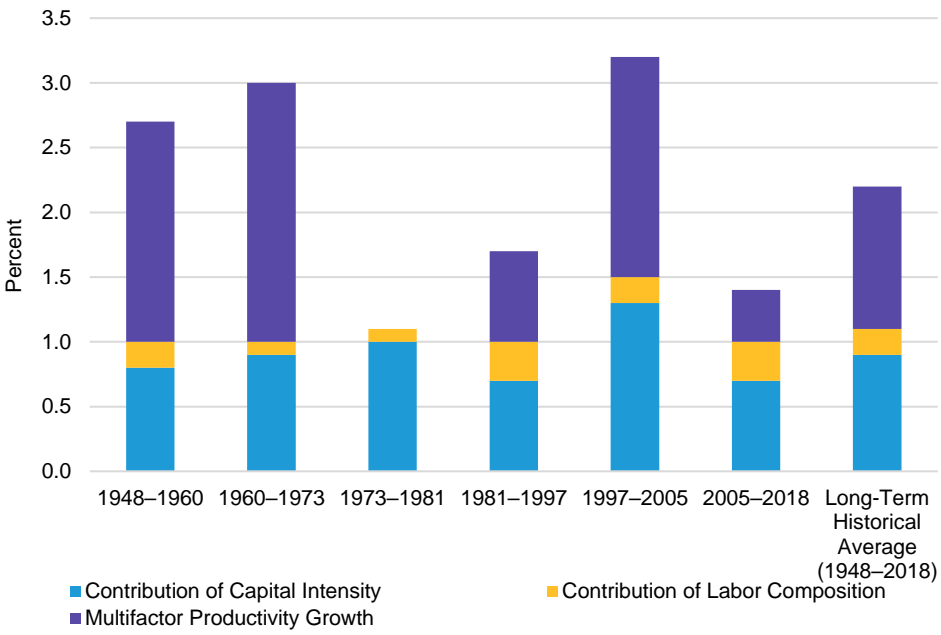
- Greater wealth inequality (richest cohort gets richer while destroying jobs?)
- Political impact: Is AI compatible with democracy?
- AI implies greater uncertainty in geopolitics

Markets tend to be bad at pricing this, risks saved up for a future day?

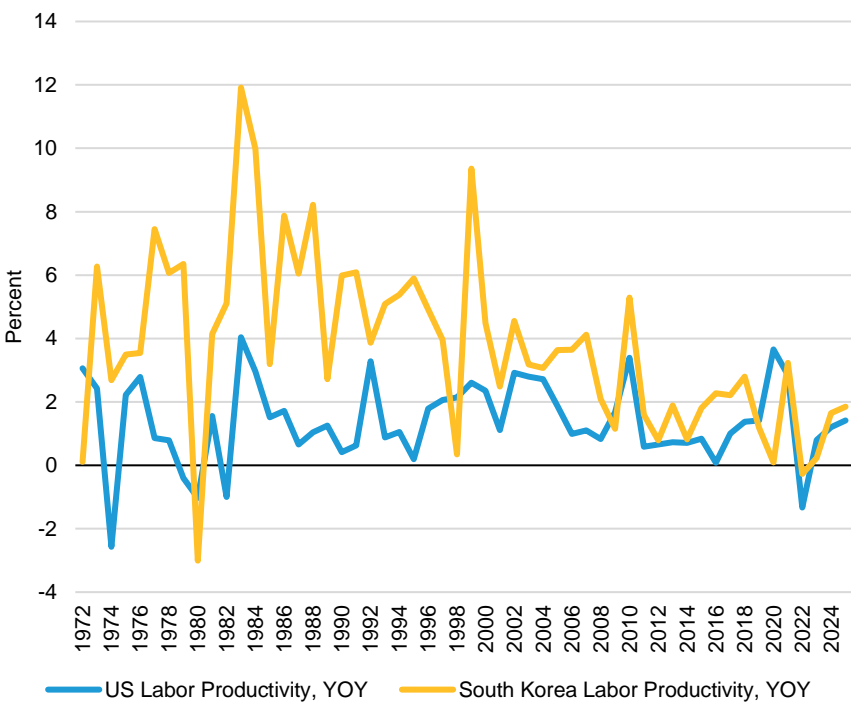
Where is the Productivity Boost from Technology?

- Would need 1.5 % pa increase in productivity to offset downward forces
- That is top end of historical range
- Daron Acemoglu (2024 Nobel) estimates 1/10th of that is likely

Any Benefit from Tech or AI Would Have to be on the Same Magnitude as the Full Range of Productivity Change in Recent Decades



US and South Korea Labor Productivity



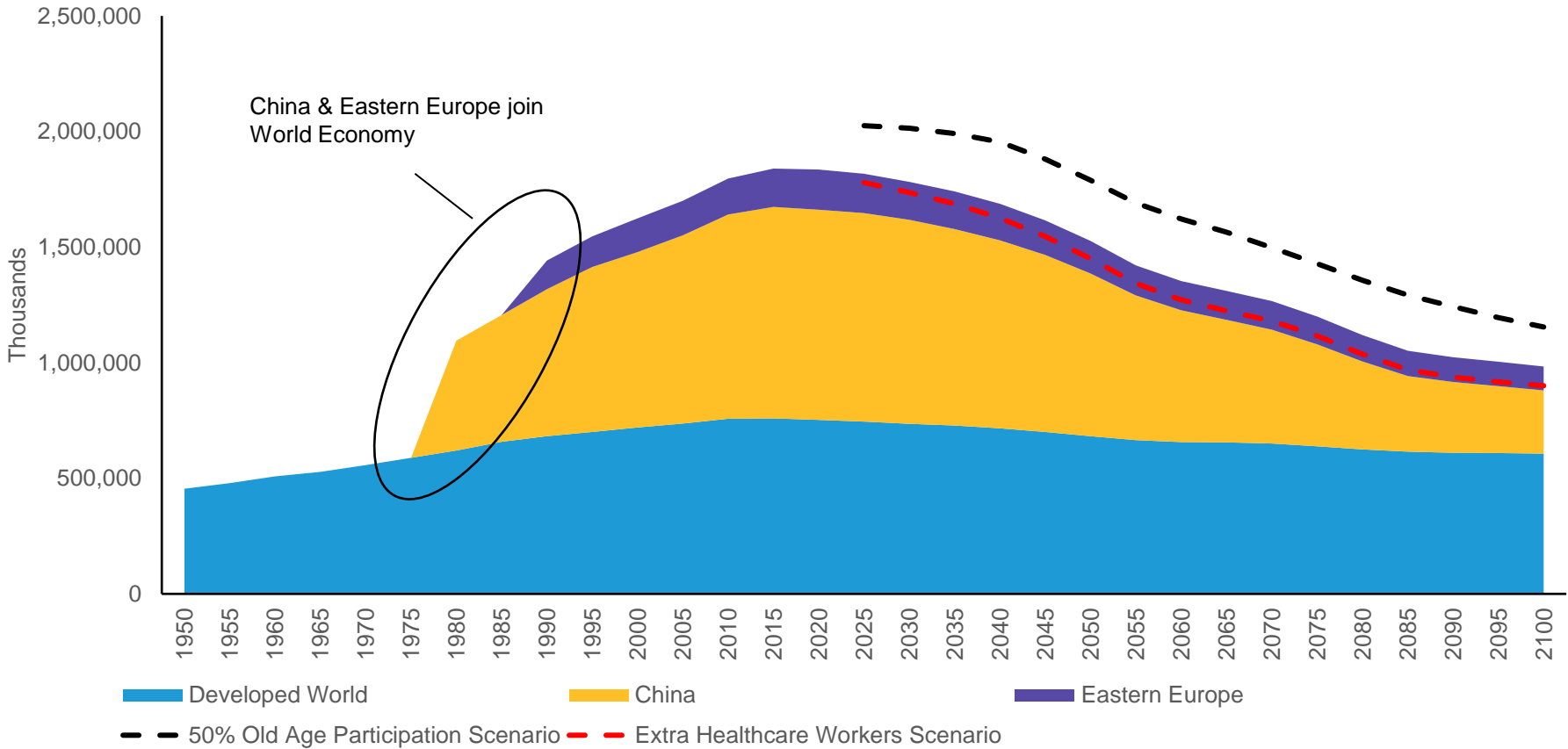
Current analysis does not guarantee future results.

LH chart as of June 30, 2023. RH chart as of January 6, 2025

Source: BLS Thomson Reuters Datastream, OECD and AB

A Shrinking Labour Force... Even Before Deglobalization is Taken into Account

The Decline in Working Population from Demographic Changes Over the Next 30 Years Will Remove 30% of the Extra Workers Who Joined the Global Economy from China and the Soviet Bloc



Historical analysis does not guarantee future results.

Note: The shaded areas represent population in regions shown aged 20–65. The black dotted line represents a scenario where 50% of those aged 65 to 79 continue to participate in the labour force. The red dotted line represents a scenario where 0.17 extra nursing and residential care workers are needed for each person aged 75 and older.

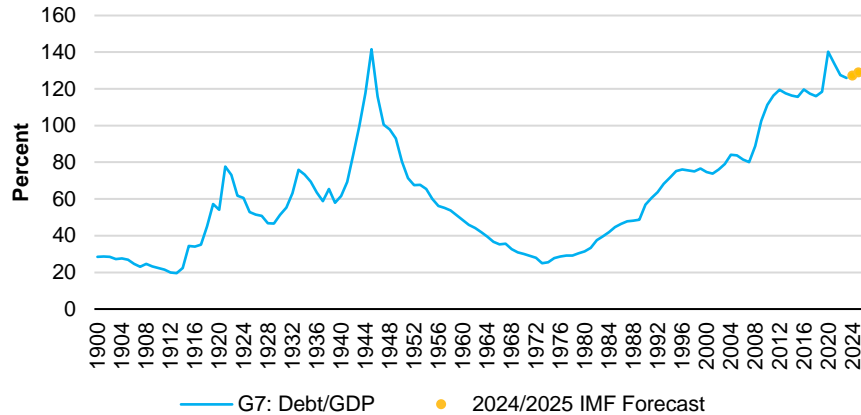
As of December 4, 2024

Source: Thomson Reuters Datastream, UN Population Division and AB

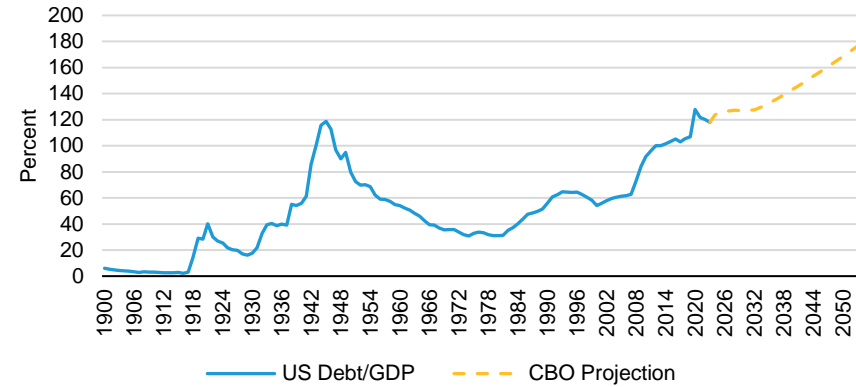
I still owe money to the money to the money I owe...

Government debt at levels last seen in WWII

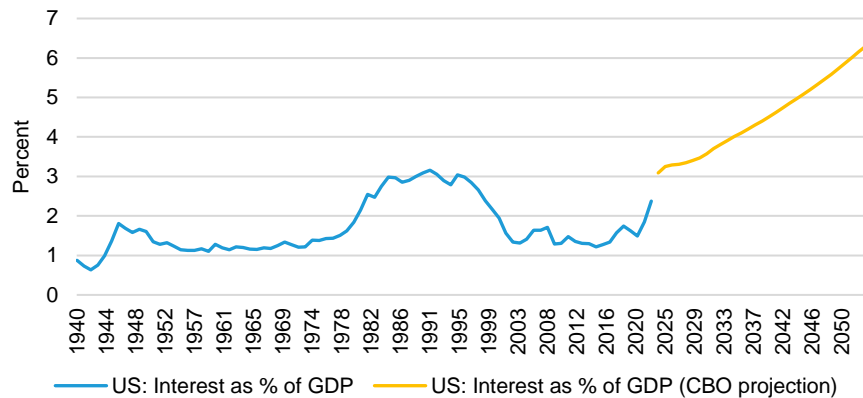
G7 Government Debt to GDP (GDP-Weighted)



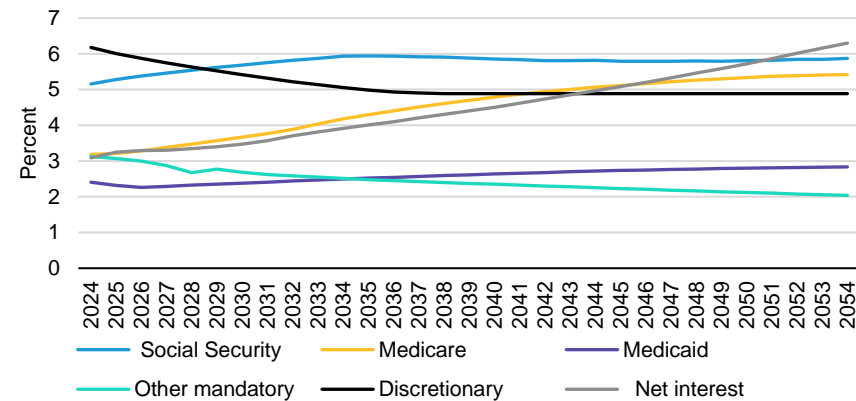
US Government Debt to GDP



US Interest Expense % of GDP Projection



CBO Spending Projections



Current analysis and forecasts do not guarantee future results.

Chart 1 shows Government Debt/GDP for G7 countries, weighted by Nominal GDP denominated in USD. Data from 1900-2023 is from Global Financial Data.

2024/2025 forecast is from the IMF. Chart 2, 3 & 4: The CBO projection presents data that supplement CBO's March 2024 report The Long-Term Budget Outlook: 2024 to 2054.

As of November 18, 2024

Source: CBC, CBO, FRED, Global Financial Data, IMF, Thomson Reuters Datastream and AB



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Can the Energy Transition Happen? Implications for Investors

Climate Scenarios and Energy Transition Needs

- Some elements of decarbonization are underway, others are lagged
- The social and political costs of a rapid transition are likely too high...
- ...while AI is leading to an increase in energy demand
- Therefore, the risk of missing 2°C target is high

Impact of Climate on Macro Outlook

- Likely lower growth rates, greater path risk
- Indirect impact: Migration pressure is just beginning...
- Greater inflation volatility
- Breaching 1.5°C or 2°C outcomes implies much greater uncertainty

Current analysis does not guarantee future results.

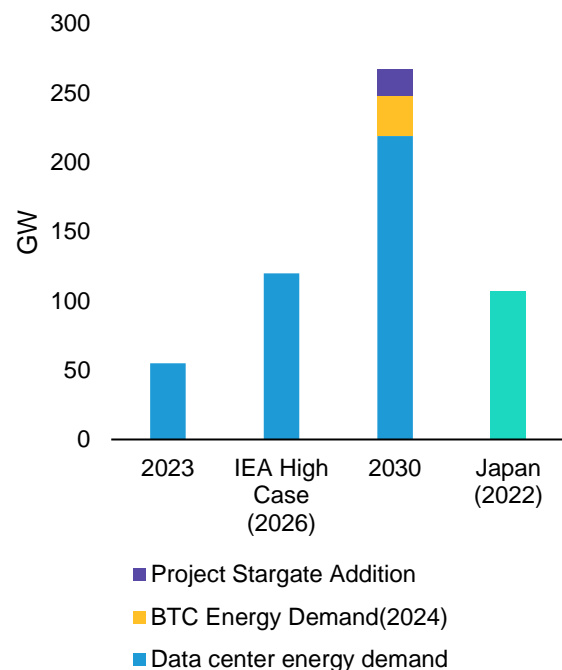
Source: AB



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Is the Energy Transition Achievable: Role of AI?

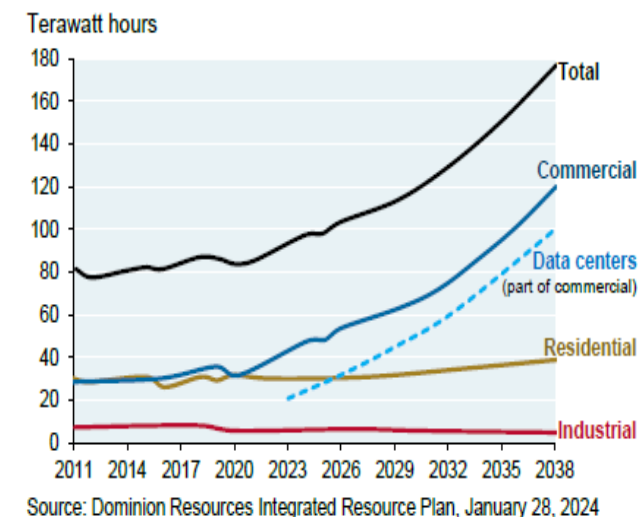
Global Electricity Demand From Data Centres, AI and Cryptocurrencies



PJM Progression of Power Demand



PJM Forecasts for Dominion Resources Power Demand



Current analysis and forecasts do not guarantee future results.

Chart 1: Note: The 2023 and 2030 data center energy demand is based on McKinsey estimates, IEA forecast and Japan Energy Consumption estimate is based on IEA (2024), Electricity 2024, IEA, Paris <https://www.iea.org/reports/electricity-2024>, Licence: CC BY 4.0, BTC energy consumption is based on Cambridge Centre for Alternative Finance (CCAF) data, and project Stargate estimates are from Bernstein sell-side US Machinery research team. As of January 28, 2025.

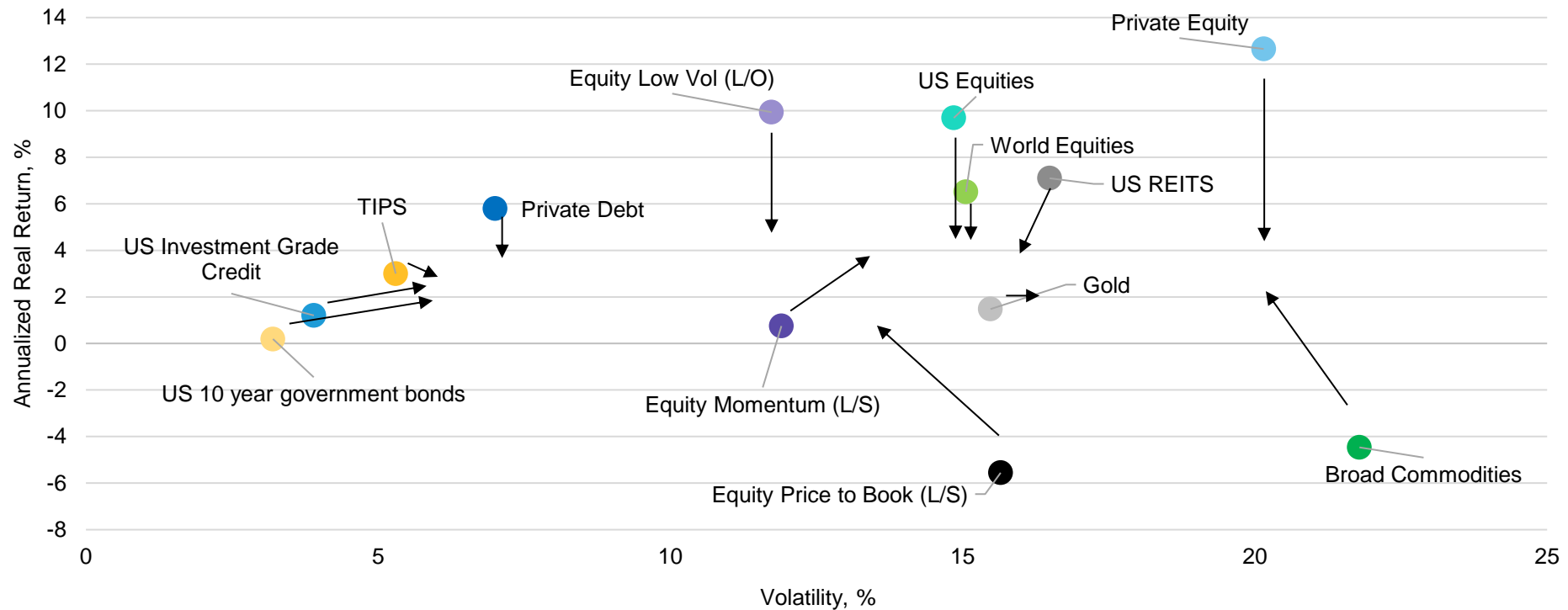
Source: IEA, McKinsey, Cambridge Centre for Alternative Finance, Bernstein US Machinery research team, Dominion Resources Integrated Resource Plan, January 28, 2024, PJM 2023 Power Demand Outlook, January 28, 2024, Enerdata, IEA, and AB



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A Painful Epiphany: Expect Lower Real Sharpe Ratios If Liabilities are in Real Terms Then Risk Needs to Increase

Several Ways Out: Illiquid Assets, Factor Risk, More Active Management, Leverage



Historical analysis and current forecasts do not guarantee future results.

The dots represent real returns and volatility for January 2010 to December 2022 period for the major return streams that investors can buy. The arrows represent the AB Institutional Solutions team's forecasts for the next 5–10 years. Private Equity return data is the US Private Equity Index from Cambridge Associates, compiled from 1,562 funds, including fully liquidated partnerships, formed between 1986 and 2019. All returns are net of fees, expenses, and carried interest. Data are provided at no cost to managers. Private Equity volatility is estimated from MSCI US Small Cap Value index with 15% leverage. For Private debt historic and future volatility is expressed as volatility of public US investment grade credit. The number is between the historic volatility of public US high yield fixed income and Preqin Direct Lending return index. Factor future volatility is assumed to be in line with post 1950 historic average.

As of October 5, 2023. Source: Cambridge Associates, FactSet, FRED, Ken French Data Library, Preqin, Thomson Reuters Datastream and AB

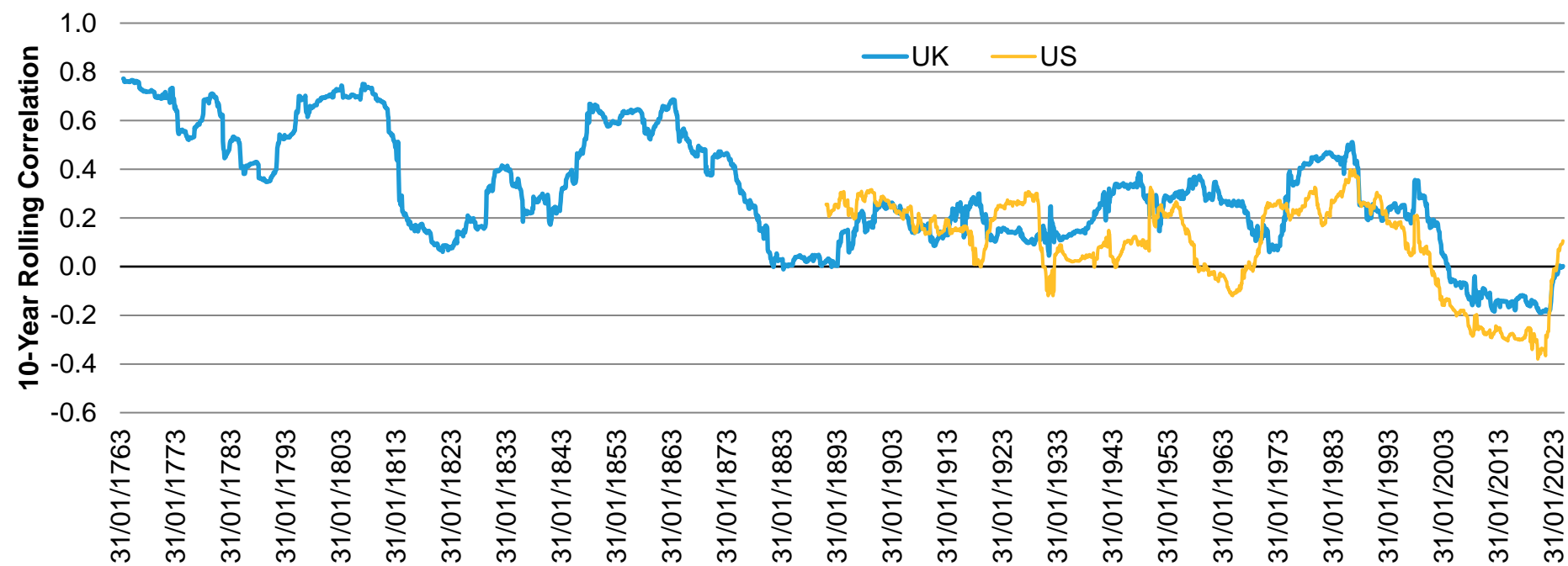


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The Diversifying Power of Bonds Likely to Reduce...

...and Increase Risk of 60:40

Stock-Bond Correlation Has Recently Been More Negative than Prior 250 Years...*
...Unlikely to Persist



Past performance does not guarantee future results.

*Rolling 10-year correlation between stock and bond returns.

As of October 31, 2024

Source: Thomson Reuters Datastream, Global Financial data, Shiller's database and AB



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What Is Risk?

If greater *investment* risk is required, what are the options?

Tension between risk as volatility vs risk as loss of purchasing power.

If the real risk is a loss of purchasing power, then one may need to take more investment risk to defray this.

The Main Options Are:

- Active management risk (Idiosyncratic alpha)
- Illiquidity risk
- Factor risk
- Equity exposure
- Staying invested in risk assets longer into retirement

Source: AB



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Public vs. Private Assets

A Need for More Private Assets

Demand (from Investors)

- Prospect of lower nominal return on public markets
- Need for diversification
- Need for inflation protection
- Need for active return streams

Supply: sources of capital are changing

- Dearth of young high growth companies coming to market
- Buybacks leading to shrinking stock of public equity
- Retrenchment of traditional providers of credit
- Borrowers recognizing greater flexibility of private capital

Emerging Limits on Private Market Allocation

- Denominator effect. Many funds are now overweight private assets vs. target
- Liquidity is a greater concern:
 - QE to QT
 - Asset owner portfolios are more illiquid
 - More fragile liquidity in public markets
- Fees – this is now the lion's share of many fee budgets

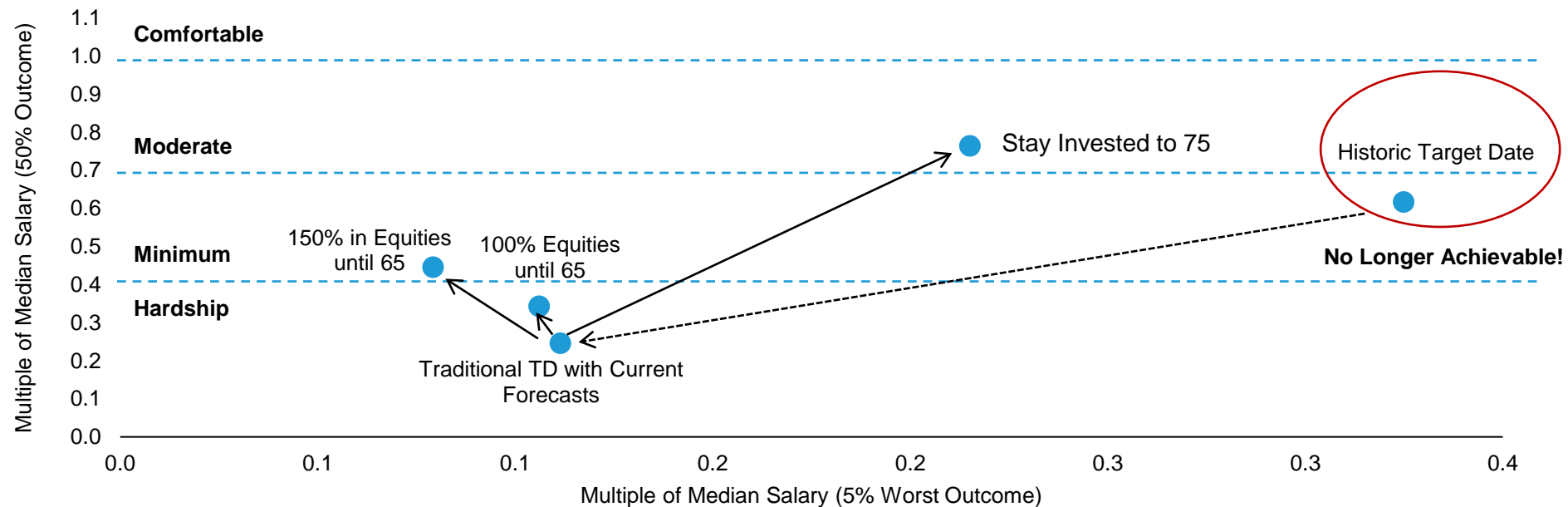
Source: AB



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Social Role of our Industry: Expected Retirement Outcome vs. Risk of Bad Outcome

- Lower real returns and less diversification imply significantly worse pension outcomes
- Rebalancing to bonds mid phase might not lower risk?
- Need to stay invested in risk assets (much) longer



Past performance does not guarantee future results.

Display shows the expected median income in retirement (annuity rate) plotted against the likely worst fifth percentile of retirement outcomes. We overlay lines showing how these outcomes relate to different levels of comfort in retirement using the PLSA definitions of retirement needs as a percentage of national median income. The baseline TD strategy simply invests 100% in equities until the age of 45, then has a linear reallocation over 10 years to be 100% bonds by age 55. The examples shown are as follows: (1) the historical TD strategy shows the median outcome of returns from such a strategy over complete lifetime savings cycles since 1970 while the distribution of returns uses a longer lookback period to all outcomes since 1941. (2) The same target date structure applying our forecast of lower return and positive stock-bond correlation. (3) A simple approach to taking more risk of 100% equities through entire career. (4) 150% equities through entire career. (5) 100% equities until 65 and then linear reallocation to 100% bond age 75, retire at 75.

Source: Global Financial data, PLSA, Thomson Reuters Datastream and AB

Cryptocurrencies and Digital Assets in Institutional Allocation?

- Real assets (including equities) as a core asset. What to add around that?
- Need for zero-duration non-fiat assets
- Attempted de-dollarization implies more CB gold buying
- Thus a case for gold...does this create demand for other non-fiat zero duration assets?
- New US administration: greater regulatory clarity for crypto...and ongoing questions of public debt
- Supply of cryptos is not limited, but may *in practice* be limited

- Longer run the bigger deal for our industry is tokenization of real assets

Current analysis does not guarantee future results.

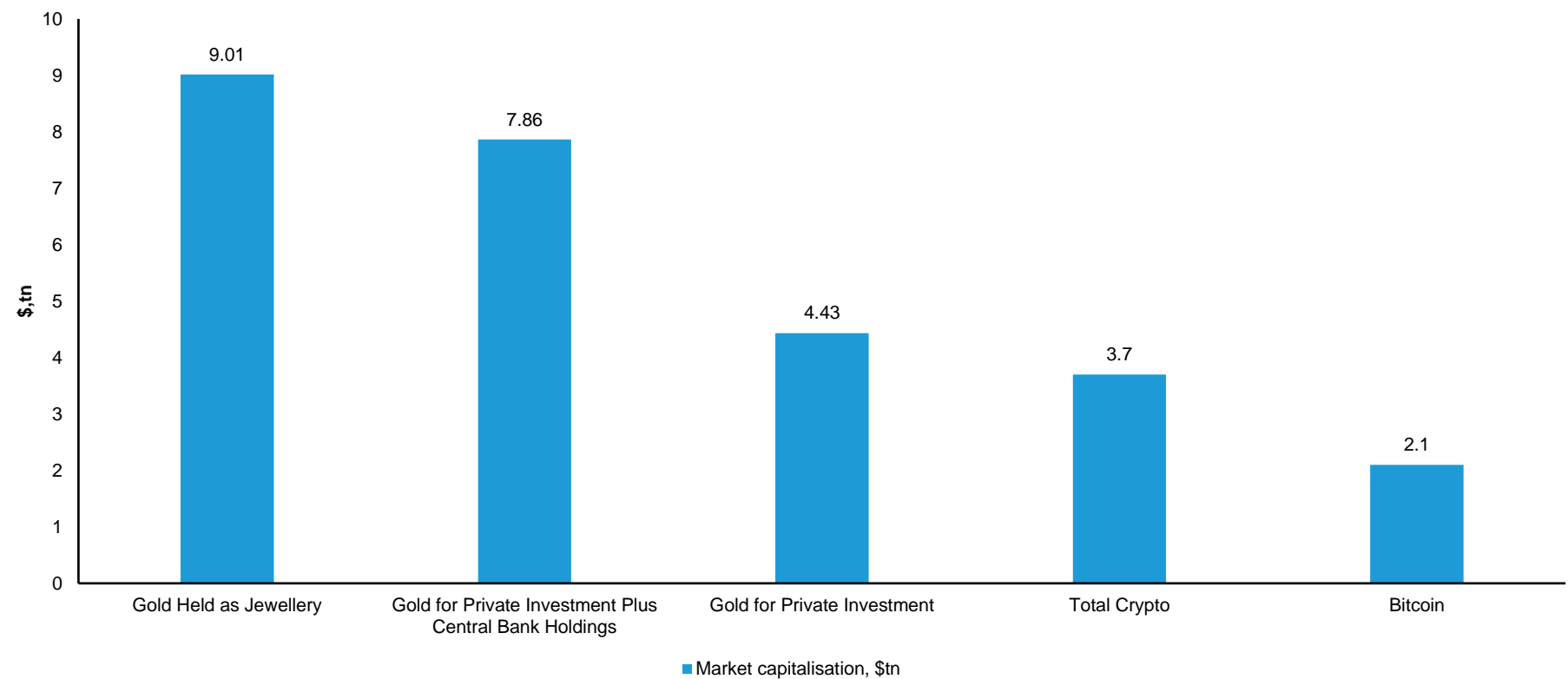
As of December 31, 2024



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Relative Scale of Gold and Crypto Assets

Market Capitalization (USD Billions)



Information provided for illustrative purposes only

Note: Gold statistics use end of 2023 value for gold stocks and latest gold price.

As of December 17, 2024

Source: Thomson Reuters Datastream, World Gold Council, www.coinmarketcap.com and AB



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Strategic Asset Class Views

Asset Class	Recommendation vs. 60/40	Comment
Equities	Overweight	
US	+	Real asset; 'US exceptionalism'
International Developed	Neutral	
UK and Japan	+	
Euro Zone	-	Challenged growth outlook. Trump win negative (defence, geopolitics, tariffs)
EM	-	
Style Premia		
US Growth	+	Expensive but greater persistency of ROE
US Value	+	Higher inflation and rates favour Value
EAFE Quality & DY	+	Attractive source of income.
Duration	Underweight	
Real Assets	Overweight*	
REITs & Natural resources	+	Strategic inflation protection
US TIPS	+	Inflation protection.
Private Assets	+	
Private Equity	-	Expect zero multiple expansion, higher cost of debt than history.
Private Debt	+	Attractive yield. inflation protection. Retrenchment by banks
Infrastructure	+	Inflation protection.
Non-Fiat	+	
Gold and Crypto	+	Protection against debasement risk for G7 currencies.

Historical analysis and current forecasts do not guarantee future results.

*Asset has small or no BM allocation. Source: AB



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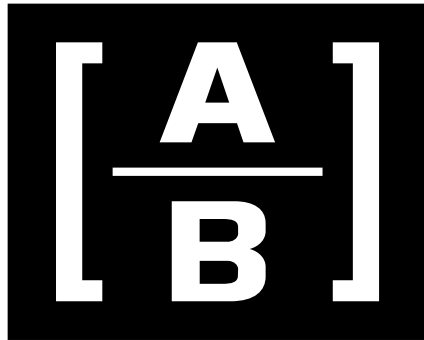
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