

The Next Chapter

3Q 2024 Macro and **Markets Review**

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Questions We Heard from Our Clients During 3Q 2024



As of September 30, 2024 Source: AB

3Q 2024: Turning the Page, Starting a New Chapter

What's Next For The Economy?

- The results of the US election come on the heels of data showing a resilient US economy, albeit one with high consumer price levels vs. 2019
- The trajectory for the US, though, depends on what policy changes ensue. We believe that trade restrictions are likely both to slow growth and to push prices higher, leaving the Fed in an uncomfortable position.
- For now, we anticipate that easing will continue as the FOMC waits to see what policies are implemented and how they impact the data flow. That should support growth and allow the expansion to continue.
- Fiscal policy is likely to be more expansive than previously forecast in the US, but only
 gradually. In contrast to trade policy, fiscal changes take time to implement. We expect fiscal
 expansion to be focused on tax cuts, which have a limited multiplier through the broader
 economy, and thus to have only a limited impact on both growth and inflation.

As of November 18, 2024. Current analysis and forecasts do not guarantee future results. Source: Bernstein analysis



Where We've Been and Where We're Going

AB's View

- Global Growth: Growth is likely to slow modestly, but greater divergence may occur between the US and the globe dependent on follow through on Trump policy proposals. A disruptive hard landing remains unlikely, in our view.
- **Monetary Policy:** Easing has begun, and policy makers are likely to continue to proceed gradually while they wait to see how the data is impacted by upcoming policy implementation. Should inflation be seen to rise in the coming months, the path forward is likely to be adjusted accordingly.
- **Bond Yields:** Cyclical factors indicate rates are likely to move lower, but market focus on structural factors like the potentially low constituency for fiscal restraint may provide pressure in the other direction.
- Inflation: Inflation has been easing, with the trajectory currently pointing toward target in the coming quarters. However, we are assuming tariffs halt the improvement and send prices higher. It remains to be seen whether the increase is one time or would continue to move up given a repeating, reciprocal response.

	Pre-Pandemic	Post-Pa	ndemic
	Five Years Ago (2019)	Forecast 2024	Forecast 2025
US GDP*	2.3%	2.4%	1.5%
Global GDP*	2.8%	2.6%	2.4%
Policy Rate	1.50%– 1.75%	4.25% - 4.50%	3.25% - 3.50%
10Y Treasury Rate	1.92%	4.15%	3.75%
US Inflation	1.5%	3.1%	3.3%
S&P 500	3,231	6,000	6,400
S&P 500 Earnings	\$164	\$242	\$264
S&P 500 P/E**	18x	22x	22x

As of December 3, 2024. **Historical analysis is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized.** *US GDP forecasts presented as 4Q/4Q; global is YoY. **Forward P/E for the next 12 months as of year-end. Source: Bloomberg, Bureau of Economic Analysis, Congressional Budget Office, Federal Reserve, FRED, S&P, and Bernstein analysis

What We Said at Year-End 2023





Rates and Bonds



Rate Cutting Starts As Pace of Inflation Slows Notably





As of September 30, 2024. **Historical analysis is not necessarily indicative of future results.** Source: Bloomberg, US Federal Reserve, and Bernstein analysis



The Fed: Where to from Here?

Our base case assumes fed funds approaches 3.5% by year-end 2025



As of September 30, 2024. Current analysis and forecasts do not guarantee future results. Source: Bloomberg, US Federal Reserve, and Bernstein analysis



Income and Price Appreciation Have Both Been Helpful to Bond Returns

Despite tough first nine months of 2022, municipal bond returns have been flat since beginning of 2022, strong over previous year

Bloomberg Municipal Bond Index

Cumulative total return decomposed since September 2023



As of September 30, 2024. **Past performance is not necessarily indicative of future results.** Source: Barclays Live, Bloomberg, and Bernstein analysis



Income and Price Appreciation Have Both Been Helpful to Bond Returns

Despite tough first nine months of 2022, taxable bond returns have been down slightly since, strong over previous year

Bloomberg US Aggregate Index

Cumulative total return decomposed since September 2023



As of September 30, 2024. **Past performance is not necessarily indicative of future results.** Source: Barclays Live, Bloomberg, and Bernstein analysis



Bond Opportunity, Hiding In Plain Sight

Money Market returns will diminish as Fed cuts, we believe bond returns are attractive alternative



As of November 12, 2024. Past performance does not guarantee future results. There is no guarantee that any estimates or forecasts will be realized. *Income from municipal bonds are generally exempt from federal, state, and local tax for in-state residents vs. treasuries which are generally subject to federal tax. †Average between current 3-month treasury yield and forecast for year-end 2025. Federal tax rate assumed is 37% plus the 3.8% Affordable Care Act. Right Display: Reflects expected returns of the Bloomberg Municipal Bond Index under three scenarios: 10-year US Treasury yields rise to 4.75%, remain or decline to 3.50% over the next 12-months as of November 8, 2024. Source: Bloomberg, Federal Reserve, FRED, MSCI, and Bernstein analysis

Active Bond Management Is Critical While the Curve Normalizes

Maintaining a modified barbell maturity structure



As of September 30, 2024. **Current analysis does not guarantee future results.** *As of June 30, 2024. †Representative municipal curve is as of December 31, 2016. Source: Municipal Market Data and Bernstein analysis

Equities



Last Decade Equity Returns Superb Despite 2018, 2020, and 2022 Declines

S&P 500 Index



As of September 30, 2024 Past performance does not guarantee future results. Source: Bloomberg, S&P, and AB



2025 Issues Scattershot—The Known Unknowns Giving Investors Pause



As of September 30, 2024 Bold denotes risks that are more likely than others in 2025. Source: Bernstein analysis



Earnings Key To Further Market Appreciation As Valuations Are Full



Despite elevated valuations, returns across sectors have been strong in 2024

As of September 30, 2024. **Current analysis and forecasts do not guarantee future results.** Source: Bloomberg, FactSet, S&P, and Bernstein analysis



Stock Valuations at Upper End of Range





As of September 30, 2024. **Past performance does not guarantee future results.** *Forward P/E multiples represent earnings estimates for the next 12 months. Dot-com bubble 12/31/96–9/30/2000. Post–global financial crisis 12/31/2007–present. Chart trend line is for 1978–2007. Source: FactSet, Federal Reserve Bank of St. Louis, S&P, and AB



Easy Financial Conditions Remain One of the Key Drivers of Return

Low rates, low volatility tend to be supportive for return-seeking assets



Financial conditions such as interest-rate levels, currency movements, and volatility gauge the ease with which business gets done. By extension, the "easier" conditions are, the better market returns tend to be.

As of September 30, 2024. Past performance does not guarantee future results.

Source: Bloomberg, Goldman Sachs Financial Conditions Index (measuring weighted average of fed funds, 10Y Treasury yield, BBB spreads, USD and stock valuations), S&P, and AB



Fed Cuts: The Why Matters

Markets tend to welcome cuts absent an economic contraction



As of September 30, 2024. Past performance does not guarantee future results.

*Recessionary first cuts include July 1990, January 2001, September 2007, and March 2020. Non-recessionary first cuts include September 1984, October 1987, June 1989, July 1995, September 1998, and July 2019. Current cycle first cut is September 2024. "Non-Recession" cuts may be linked to economic growth scares that did not ultimately result in a recession, but that the Federal Reserve felt warranted a policy easing.

Source: Bloomberg, FRED, US Federal Reserve, and Bernstein analysis



Our 2025 S&P 500 Base, Bull, and Bear Case Assumptions

Forecasting earnings growth while holding our nose on valuations



Bull: Would necessitate no economic slowdown, earnings growth of ~13% through 2026, corporate tax cuts, and only targeted tariffs. Inflation falls toward target, Fed cuts through 2025. P/E ~21x **Probability: 15%**

Base: Assumes no or only very modest economic slowdown, ~9% earnings growth, some but not all of Trump's pro-growth policies. Inflation deceleration moderates. Fed pauses in 2025. P/E ~22X **Probability: 70%**

Bear: Would necessitate inflation reacceleration with market fear of Fed overtightening or an exogenous shock. <5% EPS growth through 2026 P/E ~18x **Probability: 15%**

As of November 21, 2024. Past performance and historical analysis do not guarantee future results. There is no guarantee that any estimates or forecasts will be realized. Source: Bloomberg, S&P, and Bernstein analysis

In The Wake Of Election Day



Fiscal Policy Post-election

Republican White House/Republican Congress

- TCJA fully extended
- · Possibility of additional tax cuts
- · Increased discretionary spending
- · Tariffs could offset tax cuts from a fiscal perspective

Net Expansion Likely

Democratic White House/Divided Government

- TCJA partially expires
- · Likelihood of higher effective corporate tax rate
- Slow growth in discretionary spending
- Tariffs unlikely

Net Neutral/Slight Contraction

Republican White House/Divided Government

- TCJA partially expires
- Additional tax cuts unlikely
- Slow growth in discretionary spending
- Tariff policy the wild card

Depends on Tariffs

Democratic White House/Democratic Congress

- TCJA partially expires in 2025
- Possibility of other corporate or high income taxes
- Additional spending likely, partially offset by higher taxes

Net Expansion Likely

As of September 30, 2024. Source: AB



Predicting the Market Response to the Election

Republican White House Republican Congress

Financial Impact: Equities Up Yields Up

Dollar Up

Fiscal: Tax cuts extended; fiscal expansion through additional cuts

Democratic White House Republican or Split Congress

Financial Impact: Equities Down Yields Down Dollar Down

Fiscal: Modest Austerity

Republican White House Democratic or Split Congress

Financial Impact:

Equities Up Yields Up Dollar Up

Fiscal: Expansionary on both taxes and spending

Democratic White House Democratic Congress

Financial Impact:

Equities Flat Yields Up Dollar Down

Fiscal: Tax cuts not extended, partially offsetting spending.

As of September 30, 2024. Current analysis does not guarantee future results. Source: AB $% \mathcal{A}$



What's Particularly Interesting Right Now



Best Ideas



As of September 30, 2024. For illustrative purposes only. Past performance is no guarantee of future returns. Target returns are hypothetical performance and not projections, predictions, or guarantees of future performance, and there can be no assurance that the target return will be achieved. Source: Bernstein analysis



Appendix



Expected Returns Across Allocations

Projected median 10-year annualized return*



As of September 30, 2024. Neither past nor forecasted performance is necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized. *Median ten-year forecast represents pretax compound annual growth rates and reflects Bernstein's estimates and the capital-market conditions as of June 30, 2024. Stocks are represented by the MSCI World Index, and bonds are represented by intermediate-term diversified municipals.

†Stocks are represented by the MSCI World Index, and bonds are represented by the Lipper Intermediate Muni Bond Fund Avg.

[‡]Projections indicate the probability of a peak-to-trough decline in pretax, pre-cash-flow cumulative returns of 20% over the period analyzed. Because the Wealth Forecasting System uses annual capital-market returns, the probability of peak-to-trough losses measured on a more frequent basis (such as daily or monthly) may be understated. The probabilities depicted above include an upward adjustment intended to account for the incidence of peak-to-trough losses that do not last an exact number of years. Stocks are represented by the MSCI World Index, and bonds are represented by intermediate-term diversified municipals.

See Notes on Wealth Forecasting System at the end of this presentation for further details.

Source: Bloomberg Barclays, FactSet, Lipper, MSCI, Russell, S&P, and AB



Estimated Spending Rate and Core Capital Amounts: Based on Age

Sustainable Spending Rate*

Allocation	0/100	20/80	40/60	60/40	80/20	100/0
Age 55	1.5%	2.0%	2.3%	2.4%	2.4%	2.3%
Age 65	2.3	2.6	2.9	3.0	3.0	2.9
Age 75	3.2	3.7	3.8	4.0	4.0	3.8

Estimated Core Capital—Spending \$100,000

USD Millions

Allocation	0/100	20/80	40/60	60/40	80/20	100/0
Age 55	\$6.5	\$5.0	\$4.3	\$4.2	\$4.2	\$4.4
Age 65	4.4	3.8	3.5	3.3	3.3	3.5
Age 75	3.1	2.7	2.6	2.5	2.5	2.6

*These spending rates are for couples and assume an allocation of globally diversified stocks. Asset allocations assume globally diversified stocks. Globally diversified stocks are represented by the following allocation for a 100% return-seeking allocation: 17.8% U.S. value, 17.8% U.S. growth, 13.2% U.S. diversified, 6.6% U.S. small-/mid-cap, 19.0% developed foreign markets, 10.5% emerging markets, 10.6% US Low Vol Equity, 4.5% high-risk international. Equity geography weights may shift in proportion to total return-seeking allocation. Bonds are represented by diversified intermediate-term municipal bonds in the proportions noted. Additional detail regarding allocation available upon request.

Spending is a percentage of initial value of portfolio and is grown with inflation; spending rates assume maintaining spending with a 90% level of confidence. Based on Bernstein estimates of the range of returns for the applicable capital markets over the periods analyzed as of June 30, 2024. Data do not represent past performance and are not a promise of actual future results. See Notes on Wealth Forecasting System at the end of this presentation for further details. All information on longevity and mortality-adjusted investment analyses in this study are based on mortality tables compiled in 2000. To reflect that high-net-worth individuals live longer than average, we subtract three years from each individual's age (e.g., a 55-year-old would be modeled as a 52-year-old). In our mortality-adjusted analyses, the life span of an individual varies in each of our 10,000 trials in accordance with mortality tables.

Source: Society of Actuaries RP-2000 mortality tables and AB



Despite Sell-Offs, Long-Term Investors Remain Above Plan



As of September 30, 2024. Past performance does not guarantee future results. There is no guarantee that any estimates or forecasts will be realized.

*Great markets represents 10th percentile, typical markets represents 50th percentile, and hostile markets represents 90th percentile. Based on Bernstein's estimates of the range of returns for the applicable capital markets as of June 30, 2019, for a 60/40 stock/bond allocation. Stocks modeled as 21% US diversified, 21% US value, 21% US growth, 7% US small-/mid-cap, 22.5% developed international, and 7.5% emerging markets. Bonds modeled as intermediate-term diversified municipals. Data do not represent past performance and are not a promise of actual future results or a range of future results. See Notes on Wealth Forecasting System at the end of the presentation for further details.

†Actual annualized net-of-fee return for the period beginning September 30, 2019 through September 30, 2024. The hypothetical performance of the Moderate Portfolio Simulation (MPS) is a simulated portfolio intended to illustrate the investment experience of a Bernstein taxable client who was invested in a moderate growth allocation of Bernstein investment services. Represents monthly returns. Assumes no portfolio additions or withdrawals over the period. Results based on pretax returns and do not reflect the impact of taxes. It is presented for illustrative purposes only, and no representation is made that an investor will, or is likely to, achieve profits or experience losses similar to those shown. See disclosures at the end of this presentation for additional information regarding the simulation's composition and calculation methodology.

Source: AB



Markets Are Often Reaching New Heights



Since 1949, the S&P 500 has been at or near all-time highs 43% of the time.

As of September 30, 2024. Past performance does not guarantee future results.

*At or near all-time high represents all price levels that are within 5% of the last all-time high or are a new all-time high. Source: Bloomberg, S&P, and AB



The Balance of Factors Still Tilts Bullish, in Our Opinion



As of September 30, 2024. Past performance is not necessarily indicative of future results. Source: AB



Consumer Debt Causing Some Strain, Though Shouldn't Be Overstated



As of September 30, 2024. Historical analysis is not necessarily indicative of future results. *4-quarter moving sum. Student loans are not included prior to 2004 due to uneven reporting. Source: New York Fed Consumer Credit Panel/Equifax and Bernstein analysis

What Happens Next on the US Budget

- The total deficit is unlikely to change, irrespective of the electoral outcome.
- There will likely be different ways of getting to the deficit—different balances between taxing and spending; but, absent true fiscal reform, the deficit itself is likely to persist.
- True fiscal reform very likely has to be bipartisan because it would be so unpopular with the electorate.
- That means that government debt is likely to continue to grow both in outright terms and as a percentage of GDP.
- Higher debt service costs are an additional headwind to growth, not only for the private sector but also for the public sector.
- Click <u>here</u> for our latest white paper with more detail on the deficit.



Warning Lights Are Flashing, but Alarms Are Not Blaring



As of September 30, 2024. **Historical analysis is not necessarily indicative of future results.** Source: Congressional Budget Office and Bernstein analysis

Click below for our latest white paper for more insights



Beyond Leaders, Valuations More Reasonable



As of September 30, 2024. Past performance does not guarantee future results. Simulated or hypothetical performance results have certain inherent limitations. No representation is being made that any account will, or is likely to, achieve returns or a volatility profile similar to those being shown.

*Magnificent 7 is the average price/NTM earnings of the following: NVIDIA, Tesla, Apple, Meta, Alphabet, Microsoft, and Amazon.

†Average of month-end 12-month forward price/earnings ratios

Source: BlackRock, Bloomberg, FactSet, MSCI, S&P, and Bernstein analysis



With Higher Bond Yields, Losses Are Harder to Come By





As of November 14, 2024. Past performance is not necessarily indicative of future results. There is no guarantee that any estimates or forecasts will be realized. Long Corporate Index is represented by US Corporate Aggregate 10+ Index, Intermediate Corporate Index by US Corporate Aggregate Index, Long Treasury Index by US Treasury (20+ Year) Index, Intermediate Treasury Index by US Treasury (7–10-Year) Index, and Short Treasury Index by US Treasury (1–3-Year) Index. Source: Bloomberg and Bernstein analysis



If Yields Fall, Bond Total Return Should Outpace Yield Alone



Income Price Appreciation

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*Assumes: 10-year UST drops from 4.42% by 0.67% by November 14, 2025 to 3.75% with a 0.6% beta between 10-year UST and ID municipal yields. Based on the 3.59 YTW and 6.17 Years of duration of the Bloomberg Municipal Bond Index as of November 13, 2024.

Source: Bernstein Analysis



Geopolitics: Events Rarely Have a Lasting Market Impact

Select geopolitical events since 1970 and S&P 500 returns (percent)

	First				
Event	Trading Day	1 Week	1 Month	1 Quarter	1 Year
Watergate	6/19/1972	-0.1	-1.4	0.4	-3.0
Yom Kippur War*	10/8/1973	1.4	-3.9	-10.0	-43.2
Three Mile Island Accident	3/28/1979	-0.1	-0.7	-0.2	-4.2
Iran Hostage Crisis*	11/5/1979	-1.0	3.6	12.3	24.3
Reagan Assassination Attempt*	3/30/1981	0.6	0.6	-1.6	-16.9
Challenger Space Shuttle	1/28/1986	3.2	9.3	16.8	32.0
Iran-Contra Affair	11/3/1986	0.7	2.1	12.3	3.2
Iraq Invades Kuwait*	8/2/1990	-4.7	-8.9	-12.8	12.8
Desert Storm/First Gulf War*	1/17/1991	4.5	17.2	23.6	36.6
LA Riots	4/29/1992	2.0	2.3	2.8	10.2
WTC Bombing (1993)	2/26/1993	1.2	2.1	2.2	8.3
Oklahoma City Bombing	4/19/1995	1.4	3.1	11.3	30.5
Centennial Park Olympic Bombing	7/29/1996	4.3	4.6	10.8	50.6
Kenya/Tanzania Embassy Bombings	8/7/1998	-1.3	-10.5	5.1	21.0
USS Cole Bombing*	10/12/2000	-1.6	0.2	-2.5	-18.5
Bush–Gore Hanging Chad*	11/7/2000	-5.6	-5.5	-5.3	-20.9
9/11*	9/17/2001	-4.9	-0.9	4.7	-15.5
War in Afghanistan*	10/8/2001	1.9	3.0	9.8	-24.2

Key Takeaway: Stocks have generally shrugged off geopolitical events, since they rarely have a lasting impact on the business cycle.

		First				
Event	Tr	ading Day	1 Week	1 Month	1 Quarter	1 Year
SARS†	2	2/11/2003	-0.1	-3.2	12.2	39.5
Second Gulf War	3	3/20/2003	-0.5	2.4	14.3	29.2
Madrid Train Bombings	3	8/11/2004	0.0	1.5	1.5	9.5
Orange Revolution–Ukraine	1	1/22/2004	1.1	2.2	3.1	8.6
Asian Tsunami	1	2/27/2004	0.3	-3.4	-2.7	6.8
London Bombings		7/7/2005	2.4	2.7	0.2	8.6
Hurricane Katrina	8	3/29/2005	1.1	1.0	5.7	9.5
Arab Spring	1	2/17/2010	1.2	4.2	1.6	0.2
Hurricane Sandy	1	0/29/2012	1.1	-0.0	7.0	27.3
Boston Marathon Bombing	4	/15/2013	-2.1	3.0	6.3	16.7
Russia/Ukraine/Crimea	2	2/27/2014	1.6	0.5	3.5	16.8
Greek Referendum	1	1/5/2015	-1.2	-0.3	-8.4	1.4
Brexit	6	6/24/2016	-0.7	3.1	3.0	17.8
Trump Surprise Election Win	1	1/8/2016	1.6	5.4	8.1	24.0
Hurricane Harvey/Irma/Maria	8	3/25/2017	1.4	2.8	7.2	20.2
US-China Trade War [‡]	1	/22/2018	2.2	-2.6	-3.7	-3.1
Coronavirus Outbreak [†]	3	3/11/2020	-12.5	2.0	10.1	46.2
Russia Invades Ukraine	2	2/24/2022	1.8	5.5	-7.8	-7.4
Israel–Hamas War	1	0/9/2023	0.9	0.4	10.1	N/A
Summary	1 Week	1 Mc	onth	1 Quarte	er 1	Year
Average	0.4	1	.2	4.1		9.9
% of Events Negative	36	3	3	28		28
Conflict/War Avg.	0.9	2	.0	3.8		2.9
Terrorism Avg.	-0.1	0.	.7	4.4		12.4
Political Avg.	-0.2	1.	.1	2.4		5.3
Environmental Avg.	0.8	-0.	.1	3.4		11.9
Social/ Public Health Avg	1 4	2	2	8 1		22.2

As of September 30, 2024. Past performance does not guarantee future results.

*Denotes the geopolitical event occurred during a recession or six months prior to the start of a recession

†Date that China officially notified the WHO of the outbreak

‡Tariffs on imports of solar panels and washing machines imposed

Source: FactSet, Bloomberg, National Bureau of Economic Research, S&P 500, World Health Organization, and AB

Asymmetry of Returns Is Astounding

Bond math favors municipal investors

Yield Provides Cushion to Offset Future Price Volatility Bloomberg Municipal Index hypothetical outcomes based on 10year UST movement

	Starting Point: 10–Year UST Yield of 4.42%					
10–Year UST Change	75 bps decline	50 bps decline	50 bps increase	75 bps increase		
Bloomberg Muni Index Duration	6.17	6.17	6.17	6.17		
Price Return*	+2.78%	+1.85%	-1.85%	-2.78%		
Bloomberg Muni Index YTW	3.59%	3.59%	3.59%	3.59%		
Hypothetical Total Return	6.34%	5.44%	1.74%	0.81%		

As of November 14, 2024. Current analysis does not guarantee future results.

Analysis provided for illustrative purposes only and is subject to revision. Hypothetical analysis based on total return components. Return estimate of the Bloomberg Municipal Bond Index, which has a duration of 6.12 years and YTW of 3.59%. *This analysis implies a 60% beta of municipal yields to US Treasury yields. Simulated or hypothetical performance results have certain inherent limitations. Simulated or hypothetical trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve returns or a volatility profile similar to those being shown. There is no guarantee any investment objective will be achieved. Characteristic are subject to change. Numbers may not sum due to rounding.

Source: Bloomberg and AB



Historically, Early Birds Enjoyed the Strongest Muni Market Returns

Higher Yields and the Potential Start of a Fed Easing Cycle Should Lead to a Strong Year for Municipal Fixed Income Average 12-month forward return (percent)



Municipal Index

As of December 31, 2023. Current analysis and forecasts do not guarantee future results.

Chart based on following dates of first rate cuts: September 20, 1984, June 7, 1989, July 6, 1995, January 3, 2001, September 18, 2007, August 1, 2019. Tax rate used is 40.8%. Municipal returns are represented by the Bloomberg Municipal Bond Index. 3-month T-bill returns are represented by the Bloomberg Short Treasury 1–3-month total-return index. Source: Bloomberg, US Federal Reserve, and AB



And Cash Tends to Move Off the Sideline During Easing Cycles



As of June 30, 2024. Past performance and current analysis do not guarantee future results.

AUM: assets under management

Right display includes first cut dates: May 28, 1980; November 17, 1981; October 2, 1984; June 6, 1989; July 6, 1995; January 3, 2001; September 18, 2007; August 1, 2019 Yield changes represented by the YTW of the Bloomberg Municipal Bond Index. Source: Bloomberg, Morningstar, US Federal Reserve and AB



10-Year Capital-Market Projections: Asset Classes

	Median 10-Year Growth Rate	Mean Annual Retu	rn Mean Annual Income	One-Year Volatility	10-Year Annual Equivalent Volatility
Cash Equivalents	3.6%	3.8%	3.8%	0.5%	5.0%
Short-Term Treasuries	4.3%	4.4%	4.1%	1.2%	4.3%
Short-Term Taxables	4.5%	4.7%	4.5%	1.5%	4.4%
Short-Term Diversified Municipals	2.9%	3.0%	2.9%	0.9%	3.1%
IntTerm Treasuries	4.5%	4.7%	4.3%	5.5%	3.1%
IntTerm Taxables	4.8%	4.9%	4.8%	5.9%	3.4%
IntTerm Corporates	4.9%	5.1%	5.2%	6.7%	4.0%
IntTerm Diversified Municipals	3.0%	3.1%	3.1%	4.7%	3.0%
Global IntTerm Taxables (Hedged)	4.4%	4.6%	4.4%	4.9%	3.7%
IntTerm TIPS	4.8%	5.3%	4.8%	3.9%	7.3%
High Yield	5.4%	6.1%	8.0%	12.5%	7.8%
Global Large-Cap (Unhedged)	6.3%	7.6%	2.1%	15.7%	14.8%
US Diversified	5.4%	6.9%	1.7%	16.5%	15.5%
US Value	5.8%	7.2%	2.0%	16.2%	15.2%
US Growth	5.0%	6.9%	1.5%	18.3%	16.9%
US Mid-Cap	5.4%	7.2%	1.6%	17.9%	17.0%
US Small-/Mid-Cap	5.4%	7.3%	1.5%	18.7%	17.8%
US Small-Cap	5.2%	7.5%	1.3%	20.5%	19.7%
Developed International	7.9%	9.8%	3.2%	18.1%	17.0%
Emerging Markets	6.5%	9.4%	2.9%	22.0%	19.9%
Global REITs	5.7%	7.3%	4.5%	17.7%	16.1%
Real Assets	5.6%	6.6%	3.6%	13.5%	14.2%
Diversified Hedge Fund	5.9%	6.2%	3.2%	10.6%	14.9%
Inflation	2.5%	2.9%	n/a	1.5%	6.3%

Based on 10,000 simulated trials each consisting of 10-year periods. Reflects AB's estimates and the capital-market conditions of June 30, 2024. For hedge-fund asset classes, Mean Annual Income represents income and short-term capital gains.

Data do not represent past performance and are not a promise or a range of future results.



1. Purpose and Description of Wealth Forecasting Analysis

Bernstein's Wealth Forecasting Analysis is designed to assist investors in making their long-term investment decisions as to their allocation of investments among categories of financial assets. Our planning tool consists of a four-step process: (1) Client-Profile Input: the client's asset allocation, income, expenses, cash withdrawals, tax rate, risk-tolerance level, goals, and other factors; (2) Client Scenarios: in effect, questions the client would like our guidance on, which may touch on issues such as when to retire, what his/her cash-flow stream is likely to be, whether his/her portfolio can beat inflation long-term, and how different asset allocations might effect his/her long-term security; (3) The Capital-Markets Engine: our proprietary model that uses our research and historical data to create a vast range of market returns, which takes into account the linkages within and among the capital markets, as well as their unpredictability; and (4) A Probability Distribution of Outcomes: based on the assets invested pursuant to the stated asset allocation, 90% of the estimated ranges of returns and asset values the client could expect to experience are represented within the range established by the 5th and 95th percentiles on "box-and-whiskers" graphs. However, outcomes outside this range are expected to occur 10% of the time; thus, the range does not establish the boundaries for all outcomes. Expected market returns on bonds are derived taking into account yield and other criteria. An important assumption is that stocks will, over time, outperform long bonds by a reasonable amount, although this is in no way a certainty. Moreover, actual future results may not meet Bernstein's estimates of the range of market returns, as these results are subject to a variety of economic, market, and other variables. Accordingly, the analysis should not be construed as a promise of actual future results, the actual range of future results, or the actual probability that these results will be realized. The information prov



2. Modeled Asset Classes

The following assets or indexes were used in this analysis to represent the various model classes:

Asset Class	Modeled As	Annual Turnover
Cash Equivalents	3-month US Treasury bills	100%
Short-Term Treasuries	US Treasuries of 2-year maturity	50%
Short-Term Taxables	Taxable bonds of 2-year maturity	50%
Short-Term Diversified Municipals	AA-rated diversified municipal bonds of 2-year maturity	50%
IntTerm Treasuries	US Treasuries of 7-year maturity	30%
IntTerm Taxables	Taxable bonds of 7-year maturity	30%
IntTerm Corporates	US investment-grade corporate debt of 7-year maturity	30%
IntTerm Diversified Municipals	AA-rated diversified municipal bonds of 7-year maturity	30%
Global IntTerm Taxables (Hedged)	50% sovereign and 50% investment-grade corporate debt of developed countries of 7-year maturity	30%
IntTerm TIPS	US TIPS of 7-year maturity	30%
High Yield	Taxable bonds of 7-year maturity with credit characteristics of CSFB High Yield Index II	30%
Global Large-Cap (Unhedged)	MSCI World Index	15%
US Diversified	S&P 500 Index	15%
US Value	S&P/Barra Value Index	15%
US Growth	S&P/Barra Growth Index	15%
US Mid-Cap	Russell Mid-Cap Index	15%
US Small-/Mid-Cap	Russell 2500 Index	15%
US Small-Cap	Russell 2000 Index	15%
Developed International	MSCIEAFE Index (Unhedged)	15%
Emerging Markets	MSCI Emerging Markets Index	20%
Global REITs	NAREIT Index	30%
Real Assets	1/3 NAREIT, 1/3 MSCI ACWI Commodity Producer Index, 1/3 DJ-UBS Commodity Futures Index	30%
Diversified Hedge Fund	Diversified Hedge Fund Asset Class	33%

3. Volatility

Volatility is a measure of dispersion of expected returns around the average. The greater the volatility, the more likely it is that returns in any one period will be substantially above or below the expected result. The volatility for each asset class used in this analysis is listed on the Capital-Market Projections page preceding these Notes. In general, two-thirds of the returns will be within one standard deviation. For example, assuming that stocks are expected to return 8.0% on a compounded basis and the volatility of returns on stocks is 17.0%, in any one year it is likely that two-thirds of the projected returns will be between (8.9)% and 28.8%. With intermediate government bonds, if the expected compound return is assumed to be 5.0% and the volatility is assumed to be 6.0%, two-thirds of the outcomes will typically be between (1.1)% and 11.5%. Bernstein's forecast of volatility is based on historical data and incorporates Bernstein's judgment that the volatility of fixed-income assets is different for different time periods.

4. Technical Assumptions

Bernstein's Wealth Forecasting System is based on a number of technical assumptions regarding the future behavior of financial markets. Bernstein's Capital Markets Engine is the module responsible for creating simulations of returns in the capital markets. These simulations are based on inputs that summarize the current condition of the capital markets as of June 30, 2024. Therefore, the first 12-month period of simulated returns represents the period from June 30, 2024, through June 30, 2025, and not necessarily the calendar year of 2024. A description of these technical assumptions is available on request.

5. Expenses and Spending Plans (Withdrawals)

All results are generally shown after applicable taxes and after anticipated withdrawals and/or additions, unless otherwise noted. Liquidations may result in realized gains or losses, which will have capital-gains tax implications.

6. Tax Implications

Before making any asset-allocation decisions, an investor should review with his/her tax advisor the tax liabilities incurred by the different investment alternatives presented herein, including any capital gains that would be incurred as a result of liquidating all or part of his/her portfolio, retirement-plan distributions, investments in municipal or taxable bonds, etc. Bernstein does not provide tax, legal, or accounting advice. In considering this material, you should discuss your individual circumstances with professionals in those areas before making any decisions.



7. Tax Rates

Bernstein's Wealth Forecasting Analysis has used the following tax rates for this analysis:

Taxpayer	Scenario	Start Year	End Year	Federal Income Tax Rate	Federal Capital- Gains Tax Rate	State Income Tax Rate	State Capital- Gains Tax Rate	Tax Method Type
Client	All	2024	2025	40.8%	23.8%	0.0%	0.0%	Top Marginal
Client	All	2026	2033	43.4%	23.8%	0.0%	0.0%	Top Marginal

The federal income tax rate represents Bernstein's estimate of either the top marginal tax bracket or an "average" rate calculated based upon the marginal rate schedule. The federal capital-gains tax rate is represented by the lesser of the top marginal income tax bracket or the current cap on capital gains for an individual or corporation, as applicable. Federal tax rates are blended with applicable state tax rates by including, among other things, federal deductions for state income and capital-gains taxes. The state income tax rate represents Bernstein's estimate of the "average" rate calculated based upon the applicable state tax schedule. Where an applicable state tax code permits the exclusion of a portion of capital-gains income from gross income for purposes of calculating state income tax such exclusions have been included in the calculation.



Glossary of Risk and Return Statistics

Summary statistics are based on 10,000 simulated trials. Along each trial (or "path"), price changes and cash flows are projected at an annual interval, out to 50 years. Statistics are computed based on the ranges of outcomes across these paths.

Median Annualized Growth Rate is the annualized median across paths of the compound return over the path to the horizon indicated. This number should not be used in a portfolio optimizer—it reflects the asset class in isolation and can be compared with historical growth rates.

Mean Arithmetic Average Return is the average return across all years and paths to the horizon indicated. It reflects the return that you can expect in a typical year. This number can be entered into a portfolio optimizer.

First-Year Volatility is the standard deviation of log returns across all paths in the first simulated year. It is typically comparable to historical volatilities.

The Dispersion of Cumulative Returns is expressed on an annualized basis as Annual Equivalent Volatility; more technically, it is the standard deviation of log cumulative returns, divided by the square root of the horizon in years. If the annual returns are serially independent and identically distributed, then dispersion will equal first-year volatility. When returns are mean-reverting—as for equities whose fundamentals and valuations follow the business cycle—dispersion is smaller than first-year volatility. When returns are persistent—as for bonds driven by yield momentum—dispersion exceeds first-year volatility.

Correlation is measured analogously to dispersion by looking at compound returns across the paths—not by looking along a single path, as the historical estimate implicitly does. Looking historically, we would find that interest-rate levels on cash and bonds have generally moved in tandem, resulting in a positive correlation between them. In CME, if interest rates steadily rise on a particular 10-year path, cash tends to fare better than on the median interest-rate path, while bonds fare worse. So across all paths, cash and bonds are negatively correlated. This perspective is better suited to forward-looking analysis.



Index Descriptions

The Bloomberg Global High Yield Index represents noninvestment-grade fixed-income securities of companies in the US, developed, and emerging markets.

The Bloomberg US Treasury Index represents the performance of US Treasuries within the US government fixed-income market.

The Bloomberg 1–10-Year Municipal Bond Index represents the performance of the long-term tax-exempt bond market consisting of investment-grade bonds.

The **S&P Global Real Estate Investment Trust (REIT) Index** measures the securitized REITs from both developed and emerging markets. REITs act as operating companies that purchase, manage, invest in, maintain, and market real estate.

The **MSCI All-Country World Index (ACWI)** is a market-capitalization-weighted index designed to provide a broad measure of equity market performance throughout the world. The **MSCI ACWI Commodity Producers Index** is a free-float-adjusted market-capitalization-weighted index that is designed to track the performance of global listed commodity producers.

The **MSCI EAFE** (Europe, Australasia, Far East) Index is a free-float-adjusted, market-capitalization-weighted index that is designed to measure developed-market equity performance, excluding the US and Canada.

The **MSCI Emerging Markets Index** is a free-float-adjusted, market-capitalization-weighted index that is designed to measure equity market performance in the global emerging markets.

The MSCI USA Index is a free-float-adjusted, market-capitalization-weighted index that is designed to measure large- and mid-cap US equity market performance.

The **MSCI USA Minimum Volatility Index** aims to reflect the performance characteristics of a minimum variance strategy applied to the US large- and mid-cap equity universe. The index is calculated by optimizing the MSCI USA Index, its parent index, for the lowest absolute risk (within a given set of constraints). Historically, the index has shown lower beta and volatility characteristics relative to the MSCI USA Index.

The MSCI World Index is a free-float-adjusted, market-capitalization-weighted index that is designed to measure global developed-market equity performance.

The Russell 1000[®] Growth Index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.*

The Russell 1000® Value Index measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.*

The unmanaged S&P 500 Index comprises 500 large-capitalization US stocks and is a common measure of the performance of the US stock market.

*The Russell Index methodology results in some companies appearing in both the growth and value indexes.



Glossary

Active Management: Managing a portfolio through security selection designed to outperform the portfolio's benchmark.

Active Share: The degree of difference between a portfolio and its benchmark index, calculated using the weight of individual securities in the portfolio relative to the benchmark. Active share varies between 0% (a portfolio that mirrors its benchmark) and 100% (a portfolio totally different from its benchmark).

Central Bank Policy: The monetary stance taken by a country's central bank, which can vary from extremely accommodative (keeping short-term interest rates very low, typical when economic growth is slow or negative) to extremely tight (raising rates to high levels, typical when inflation is very high).

Correlation: The degree to which two or more securities, asset classes, and/or benchmarks perform in the same direction and magnitude; a lower correlation is generally favorable for active management, and a higher correlation for passive management.

Dispersion (of returns): The difference in return, often between the best- and worst-performing security in a given asset class or investment category. Generally, the higher the dispersion, the more favorable for active management.

Distressed-Credit Hedge Fund: A hedge fund that invests in the debt of companies in financial trouble, including companies that may file for bankruptcy in the near future. If the company emerges from its distress, its debt will sell far above the price paid by the fund.

Duration: For bonds, a measure of interest-rate risk akin to, but more sensitive than, maturity. For every year of a bond's duration, its price can be expected to fall 1% with every one-percentage-point increase in interest rates, or rise 1% with every one-percentage-point decrease in rates.

Dynamic Asset Allocation: Bernstein's research-based tactical-risk-management service (see below), designed to reduce the volatility of a balanced-asset portfolio without sacrificing return.

Event-Driven Hedge Fund: Event-driven strategies take advantage of transaction announcements and other one-time events; one example is merger-arbitrage funds, which buy the stock of a target company and hedge the purchase by selling short the stock of the acquiring company.

Global Macro Hedge Fund: A hedge fund that bases its holdings primarily on overall economic and political views of various countries.

Hedging (currency): Using futures and other contracts to exchange one currency for another; for US investors, hedging is generally exchanging a non-US currency for dollars.





Inflation-Protected Bonds: Bonds whose values are indexed to inflation, normally adjusted on a semiannual basis. The most well known are Treasury Inflation-Protected Securities, or TIPS. Inflation-protected bonds are designed to shield investors from the negative impact of inflation.

Liquidity: The ease with which assets can be traded; the degree of liquidity for any given asset class or security depends on the prevailing market conditions, dealer inventories, and other factors.

Long/Short Hedge Fund: A hedge fund that takes "long" positions—positions of securities bought in the expectation that they will appreciate in value—as well as short-selling other positions, anticipating that they will decline in value. In short selling, the investor generally sells a borrowed security in the expectation that its price will decline and hence can be bought back at a lower price.

Passive Management: Managing a portfolio to essentially duplicate its benchmark index.

Price/Book Ratio: A stock's current price divided by its book value: its total tangible assets minus its liabilities. A lower price-to-book ratio indicates a low price for a stock relative to the value of its underlying assets.

Price/Earnings Ratio: A stock's current price divided by the company's historical or projected earnings per share. A lower price/earnings ratio indicates a low price for a stock relative to its earnings history or potential. The cyclically adjusted or Shiller P/E, usually applied to the broad S&P 500 market, generally uses the average of the past 10 years of earnings, adjusted for inflation.

Real Assets: Assets that have tangible value, or are based on assets with tangible value, such as real estate, commodities, and commodity futures.

Roll (bonds): The tendency of a bond to sell for premium returns before maturity as long as the yield curve (*see below*) is upward-sloping, since its coupon rate is normally competing with lower rates as it "rolls down the yield curve." Roll is a component of bond returns that active managers can exploit.

Tactical Risk Management: Varying the allocation of asset classes in a portfolio in line with generally short-term forecasts of risk and return.

Yield: The income return from an investment, typically based on the interest paid by a bond or the dividends paid by a stock; usually expressed as a percentage based on the security's cost, market value, or face value.

Yield Curve: The relationship between the yields being offered by bonds at any given time and their maturity; normally, the curve is upward-sloping, but flat or inverted yield curves are not uncommon. Different yield-curve shapes suggest different optimal maturity configurations for a portfolio.



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