J.P.Morgan

Global Long-term Strategy
26 September 2023

The Long-term Strategist

Strategic investing questions, by the dozen

- **Six questions on how one should put together a strategic portfolio and six on macro questions for the long-term investor.**
- ***How many assets do you really need?*** Two will do the job. One global equity fund plus one broad bond fund in your own currency, with you deciding the balance, should give return and diversification.
- ***Are there superior asset classes left?*** Not many, as everyone knows everything nowadays, with new knowledge on what assets have high Sharpe ratios spreading rapidly and getting arbitraged in no time.
- ***What kind of bonds belong to your strategic bond holdings?*** Bonds in your own currency, and credit, with safe government debt only appropriate for those with low tolerance to shorter-term drawdowns.
- ***How to resolve the entry point problem?*** The current price/IRR of an asset class is the best predictor of long-term returns but can change daily and would thus regularly change your SAA. An investor who does not use external managers will have to integrate TAA with SAA, while having to decide which they are better at.
- ***Do Commodities belong in your SAA?*** Not really, as they lack income. But they do have hedging and trading value.
- ***The extraordinary value of keeping it simple.*** Simple portfolios with few assets and basic valuation and investment rules make it easier to understand one's risk and lower the time and cost of managing money, without giving up much return.
- ***Is Climate Change now in the price?*** It is beginning to be priced in, more in pushing up green asset prices than in pushing down the price of assets located in areas at high risk of extreme weather damage. It is not too late to invest on Climate Change.
- ***Why care about high government debt/GDP ratios?*** We should in principle focus on interest payments to GDP – flow-to-flow – which still looks OK in the US. But it is better to look at debt/GDP ratios when bond yields move quickly.
- ***Is r<g enough to give us debt sustainability?*** No, as low interest rates in turn induce governments to overspend and overborrow.
- ***Can we forecast inflation and real asset returns over the long term?*** Not really, as inflation that far out depends on the average output gap, which we can't forecast. We can forecast nominal returns reasonably, but if we can't project inflation over the next decade, we cannot be precise about future real returns.
- ***What are our top long-term risks?*** Climate Change outranks any other risk. Lower, but still meaningful, are US/China, uncontrolled US debt rises, and AI. Most risks will push interest rates and volatility higher but the dollar lower.
- ***How does higher macro vol affect where you take risk?*** To us, it means, at the margin, more tactical risk taking and less strategic.

Long-term Strategy

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See page 9 for analyst certification and important disclosures.

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1. How many assets do you really need in your long-term portfolio?

In principle, you do not really need more than two: a global equity fund and a broad bond fund in your own currency, with the relative amounts a function of your return needs, ability to withstand short-term drawdowns, and need to control long-term risk on your ultimate portfolio. This gives you very good diversification, clarity and simplicity on what you are holding, and high liquidity with minimum costs if held through passive funds, mutual or exchange traded (ETFs).

One could argue that your bond fund should be global, but that would add foreign-currency risk that is generally not well compensated. If you then have strong views on what asset types, countries, or sectors to have more of than is in these broad funds – say you fancy Technology – you can simply add a Tech ETF to these two funds. It is harder when there are certain assets you want to have less of, or not have at all – say oil companies. You would need a fund that excludes oil companies, but that may not exist if there are not enough investors like you who do not want to hold oil. If such a fund does not exist, then you will have to build a portfolio bottom up by trying to buy all the other sectors, for which funds will surely not all be available. Hence, it is much easier to execute overweights than underweights in a simple portfolio. In **short, you will do quite well with holding only two funds: a global equity one and a local bond one.**

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2. Are there any superior assets left that you should systematically overweight in a strategic portfolio?

We used to think so, yes. The Empirical Finance literature has found troves of high-Sharpe ratio assets that have high returns to risk and thus lie above the standard risk-return trade-off line of local-currency bonds and global equities, which is the standard of a simple, well-diversified portfolio. If markets are perfectly open, global, and frictionless, such superior assets should not exist, because everyone will buy them, bidding up their price and pushing down their likely future return, until they have been brought down to the global risk-return trade-off line, and are no longer a superior asset class. The opposite happens for assets with inferior returns to risk as nobody will buy them, pushing down their price until they move back up in return. We thus need market inefficiencies, as we call them, typically brought on by market segmentation, to produce superior assets.

We always thought this was the Holy Grail of strategic investing. And for years, we joined the search and testing of these high-Sharpe assets, in Value, Small Caps, Momentum, High Buybacks, and Fallen Angels, to name just a few (see the library of past issues of *The Long-term Strategist* at the end of this note). But it has gradually been dawning on us the last few years that the majority of these show a fading pattern of outperformance, doing well decades ago, but then not doing any better than the broad markets over the past 10 years or so. A most plausible explanation is that "everyone knows everything" nowadays and has access to the same broad Finance Literature. Academic researchers after all are paid to get their results published and not to hoard them. As all this information spread out and markets became ever more global, the excess returns on these high Sharpe assets almost all dissipated.

Hence, **we are now starting from a belief that there are very few superior asset classes left** and that you might as well just stick to a simple portfolio of a global equity ETF and a bond fund in your own currency. We will make an exception within fixed income in the query below, as there remain real segmentations in world markets by base currency, investment horizon, and tax rates, that will make certain bonds produce better returns to risk, as experienced by the investors, than other bonds.

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3. What kind of bonds should be in your strategic fixed income allocation?

In equities, we think you should start with a global fund, to get maximum diversification within the asset class. But that is probably not the case for fixed income. Most investors will want some fixed income to limit short-term drawdowns and to get some diversification. **Foreign-currency bonds do not help** in this regard because of the extra volatility from currency changes. One could argue that a sell-off in domestic assets should also depress the currency and thus create gains on foreign currency holdings, but we are not convinced such offsets are stable and can be relied upon. We do see a strategic case to include foreign-currency bonds when one's own bond market is very small and illiquid and one's currency is pegged, or stable against one with a much larger and more liquid bond market.

Within one's own currency bond market, there is similarly the question whether one should be exposed to all bonds issued in one's currency, or only some part of it. US municipal bonds, e.g., are clearly not for everyone as most are not taxable and they thus pay a low yield that makes no sense for an investor who does not have to pay US taxes.

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For different reasons, one can question whether a truly long-term investor should hold **government bonds** as these typically pay much lower yields than corporate bonds with a yield difference that is most of the time well in excess of long-term losses due to default. Government bonds do provide one advantage over credit in that the former have a much lower correlation with equities – frequently negative – than credit and thus provide better diversification, especially during recessions when equities can perform quite poorly. The investor who is quite sensitive to temporary drawdowns or is required by regulation to hold government debt does have a strong case to include default-free government debt in their bond portfolio. The investor who does not care much about short-term volatility and only about how much their portfolio will be worth years out when they need the money has no systematic need for safe bonds.

In short, we think **your basic strategic bond portfolio should be in your own currency and include government bonds only to the extent you are sensitive to shorter-term market volatility. The rest should be corporate bonds.**

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4. How to resolve the entry point problem?

Our most objective and accurate forecasts for what returns you can expect for any asset class over the long term depend predominantly on its current internal rate of return (IRR), which combines today's asset price with what is known of its income (promised coupons on bonds or earnings/dividends for equities). The problem is that tomorrow's price will likely be different from today's. Hence, tomorrow, our expected long-term return on an asset class can be different from the one we calculate today. Should this then not change our strategic asset allocation (SAA) daily? This clearly **clashes with the notion of your SAA as the stable anchor allocation that one should stick to over the long run.**

How does one resolve this conundrum? One approach is simply to only adjust your SAA on an annual, or bi-annual basis and thus ignore intervening price movements, to keep a cleaner separation between TAA and SAA. A **second approach** is to use a floating entry point to calculate future returns and to use, say, the average IRR over the past year or quarter instead of today's, which means that your expected return will not move much from day to day. You can then stick to reviewing your SAA only on an irregular basis. Neither seems quite right as you are ignoring the most relevant information on future returns, which is today's price.

A **third approach**, and the one I prefer, is to integrate value-based changes in your holdings with what is called tactical investing to make it, simply, "no-labels" investing. Any changes in your asset allocation would be a **combination of changes based on long-term expected returns and expected shorter-term movements in markets**. These two signals could easily clash as tactical moves are generally more momentum driven, while SAA changes should be based on value and are thus really anti-momentum. When an asset's price is cheapening, the long-term investor will want to hold more, but the momentum-driven one may want to sell instead as what goes down tends to go down further, at least in the short run. Which will dominate should depend on the strength of each signal, and how good you consider yourself on making short- versus long-term calls. This will at times lead to a certain inertia in one's trading where an asset class going down in price versus others may lead you to want to sell on negative momentum, but your long-term calculations tell you the asset is now cheap and your SAA wants to hold more. This may seem like the proverbial "bunny frozen in the headlights," not knowing what to do, but is quite rational when you are receiving opposing signals.

This is not to say that a separation between strategic decisions makes no sense. It is most appropriate when there is **more than one decision maker** involved: the ultimate owner of the money and the asset manager hired to manage typically one part of the money around a strategic benchmark chosen by the ultimate owner. **Combining short- and long-term signals, or strategic and tactical considerations, make most sense when they are decided by the same owner of the money.**

One major **caveat** in this combo approach is that the investor must be honest and **clear about where their knowledge really lies**. The danger is that many of us tend to over-rate our ability to call the market short term. It is our perception that the most successful investors over time tend to be the ones that base their decisions on what they can be quite confident about, which is generally the yield/value of an asset or asset class and its historical long-term relative performance. Hence, a "realistic" individual investor is in our mind probably best off sticking with long-term value-based allocation and to ignore the temptation to trade the market on short-term beliefs. The general perception that "retail" tends to buy high, after a market has rallied for some time, and sell low, after that asset class has gone through severe losses, would be consistent with many of us overrating our trading skills. To leave tactical trading to the professionals is probably not bad advice.

In short, the entry-point problem is that your SAA depends on expected long-term returns that depend on the IRRs of asset classes, which can change day to day, implying more frequent changes in SAA than is consistent with its objective of serving as a stable anchor to one's investments. For the

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individual investor who makes her own decisions on how to invest, this suggests merging tactical and long-term value considerations into one combined approach. The larger investor who uses professional asset managers for different parts of their holdings will more likely want to stay with the TAA/SAA separation and only make SAA changes on an infrequent basis.

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5. Do commodities belong in a strategic portfolio?

In principle, No. **Commodities are "stuff"** and not financial assets like bonds and equities that generate income from coupons or dividends. Most investors hold commodity exposure through futures that can earn income from rolling from the expired to next contract. However, over the very long run, this roll income has been more negative than positive.

Commodity prices are **very volatile** and, yes, they can, in the short run, produce gains that beat financial assets. They are thus a good asset for trading, but to invest in them longer term, you need to have reason for them to produce a return competitive with equities, which have about the same volatility. With our valuation-based models projecting ~7.0% annual return on the S&P 500 for the coming decade, commodities with no income need to double in price over the next 10 years to be competitive.

Over the last 30 years, the commodity complex has earned only 1.3% pa in dollars, less than any other major asset class. But their huge volatility and sustained medium-term momentum did produce 10-year periods of double-digit gains such the 1970s when oil prices rose tenfold, or the pre-GFC decade when China entering the WTO pushed up the broad commodity price complex by a factor of 4. It is not impossible that oil, which is the main component of broad commodity indices, doubles in price in the coming decade, but it requires an active view that many could disagree with.

If not on straight return, **can commodities be a good diversifier,** or **hedge against long-term risks?** Simply by historical experience, not really. Commodities have a positive correlation with equities, ~0.4, unlike the negative correlation of US bonds with US equities, and bonds at least pay decent income nowadays.

Commodities do correlate positively with inflation, which threatens real returns on assets, but this correlation and thus hedging value are about the same for real estate, which again at least produces good income.

That said, we can see some strategic value for exposure to **food prices** and to metals important for the move to renewable energy in case of an acceleration of climate change and adverse weather events.

In short, without direct income from holding commodities, **they are not a good fit for your strategic portfolio, although they have value for tactical trading and as a hedge against extreme climate change**.

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6. The extraordinary value of keeping things simple

Our industry does seem to love complexity and to abhor simplicity. The more complex the financial world is seen to be, the more managers, analysts, traders, consultants, regulators, and risk managers feel they add value and expect to be paid. But there is a lot of benefit to the ultimate buyers of financial services and products to keep things simple.

For one, one should not buy assets that are too complex to be easily understood as the risk is then that the asset will not be appropriate for one's financial objectives. Second, the fewer the assets one has in one's portfolio, the **easier it is to judge risk** on them, the easier it is to gauge one's exposure, the easier it is to manage one's portfolio, and the **less time it takes**.

Time is indeed money. And probably the greatest benefit of simpler products is that they are **cheaper**, in terms of management fees and the costs of buying and selling them. Simpler products that are well understood by everybody will likely also be more liquid. The simplest investing rules, like "buy and hold" and do not move assets around much, are also easier to follow, save on taxes and other transaction costs, and reduce the trap all of us are at risk of falling into, which is to sell when markets have been going down a lot and to buy when they have been going up (i.e., the risk of buying high and selling low). Finally, we have found that the **simplest valuation rules**, like using an asset class IRR, bond yields and equity yields, or mean reversion in real exchange rates, have had a much better record in judging future long-term returns than more complex systems.

Overall, then, we feel that **keeping things simple in finance, fewer assets, simple valuation rules, simple investment rules, is an underrated strategy** and one that too few of us actively pursue as the mainstay of their strategic allocation.

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7. Is climate change now in the price, as everyone knows that it is serious reality?

Should Climate Change by now not be priced, and is it then not too late to start or still be investing on this theme? After all, everyone by now should know about Global Warming, even if there is some disagreement about its causes and whether we can do something about it. And indeed, we do find that scientists' forecasts for rises in temperature and sea levels made from the 1970s on are pretty much on track 50 years later, when looking at the trend rises in each. However, scientists' forecasts are not always followed closely by investors, nor are they necessarily believed as many may think of them as Cassandras that should have more faith in the ability of the capitalist system to find solutions to problems like global warming, when given an incentive to do so.

Investors do not have to be ignorant, short-sighted, or irrational for having ignored these risks in past decades. **It is hard for markets and companies to price in events one to two generations out**, or to make very long-term investments, even if they could be of huge impact, as discounting them to the present makes them usually of much smaller value than the here and there of the present.

Still, when we look at research on whether Climate Change is priced in, we find **some evidence** here and there that the market is by now starting to look at which assets will gain, and which will lose from accelerating climate change. But we think we are very far from fully pricing in Climate Change, probably because many have been thinking for some time that this remains a far-into-the-future event that new technologies will be able to address.

As a broad generalization, there seems to be **more upside than downside priced in from Climate Change** as buying a particular "green" asset in a specialized long-only Climate fund will push its price up more than not buying others that will be hurt, mostly because there are many more of the "others." One frequently hears that green assets have become quite expensive.

On the downside, with Climate Change creating greater extremes in weather that do massive damage around the world, one would expect that assets, such as real estate, located in areas with higher risk of damage from flooding, hurricanes, tornadoes, wildfires, drought, or mud slides would be priced much lower than those with lower such risks.

Again, we see a little here, mostly driven by higher costs of insuring one's property in high-risk areas, but overall, not that much. There is some evidence that sovereign borrowers and municipalities in high weather risk areas now must pay a risk premium over those with lower such risk.[1] But we have not seen a dramatic enough repricing of real estate by weather risk as Americans have in recent years on net migrated *toward* areas with higher risk of adverse weather, rather than away from it.[2] Much of this is probably because the federal government and a number of states have been taking measures to protect property owners from the escalating cost of insuring against the damage from extreme weather events.

In short, we **do not think that Climate Change is fully in the price yet** and are most worried about assets located in higher risk areas do not seem to have priced in that much yet.

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8. Why do we care about a high debt-to-GDP ratio?

A high government debt-to-GDP ratio is frequently seen as a dangerous development that merits concern for long-term investors. We do not disagree, but for a different reason than is usually argued. One of the first lessons we learn in Economics is **not to compare a stock with a flow**. Only compare flow with flow or stock with stock. Debt is a stock measure of outstanding liabilities. GDP is a flow measure of economic activity during a year. Hence, they do not compare properly. Better to compare debt with the present value of future GDP flows – both are stock measures – **or the flow of interest payments on debt with GDP** – two flow measures. Each of these ratios involve interest rates, in the former as a discount rate to calculate the PV of future GDP. And over the past decade, with real interest rates on government debt almost always in negative territory, neither of these flow or stock measures by themselves gives much reason for concern for the largest advanced economies.

In principle, if a government can borrow at a negative real rate of interest, any public investment with zero real return is worth pursuing. Admittedly, much of recent deficit spending was not really on public investment. And government did use cheap funding indeed to run up spending and cut taxes, **with**

1. In Pricing of climate risk in financial markets: A summary of the literature, BIS Papers No. 130, Dec 2022, Eren et al. conclude that "While studies find that these risks are starting to be priced, concerns are growing that current prices do not fully reflect the risks."
2. See e.g., Migration towards environmentally risky areas: a consequence of the pandemic, Freddie Mac, Nov 9, 2022; Americans are flocking to wildfire: A US migration story, Dec 8, 2022; Redfin reports migration into America's most flood-prone areas has more than doubled since the start of pandemic, July 24, 2023.

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the US raising its total federal debt held by the public from ~40% to ~100% of GDP the last 15 years.

Even today, the US government is paying less than inflation on its debt. What is to worry then? The reason we should indeed worry is that interest rates can be quite volatile, as we have seen the last year and a half, and do not really mean revert but can keep on going and going. And they can change a lot faster than governments can change their spending and revenues. Hence, when a government, or a private entity for that matter, uses the good times of cheap money to load up on debt, any sustained rise in interest rates can quickly raise interest payments, raising outstanding debt further, which makes investors more worried, making them demand a high interest rate, and so on, with a borrower falling into a **doom loop** of higher rates creating more debt that pushes rates up even higher, producing a debt crisis. That is indeed how Emerging Markets borrowers have gotten into trouble time and time again.

The maturity of US federal debt has averaged about 5.5 years over the past few decades and is today only slightly higher. It thus does not take that many years for higher rates to push up the total cost of federal debt. That is why we and the US CBO are quite worried about the inability of the US Congress to curtail spending or raise taxes or voters not electing people to Congress that credibly commit to cut the deficit. **We thus see this looming US debt crisis as a force to keep pushing US – and global – interest higher over the coming decade.**

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9. Is economic growth exceeding the level of real interest rates enough to produce debt sustainability?

In the classical models, $r<g$ is all you need to reduce debt-to-GDP, but it comes with two major caveats that have recently been reality. One is that it requires a government to have a primary budget balance, that is, a balanced budget excluding interest payments. That has surely not been the case in the US, because of caveat number 2, which is that governments should not be using the ability to borrow at low interest rates to load up on debt, which is exactly the understandable temptation. Hence, do not try to judge debt sustainability of government by comparing its real cost of borrowing with the growth rate of its economy, as a lower rate than the growth of its economy is exactly the time when a government will want to load up on more debt.

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10. Can we forecast long-term inflation and real returns?

Well, **not really**. We have tried and have not come up with anything quantitative that works for inflation. And that is probably because theory tells us that inflation rises when the economy is operating above full capacity and falls when it is operating below. But over the next 10 years, one ought to assume that at least on average, the economy will be operating at capacity.

We have models to forecast economic growth, but how do we know that is faster or slower that its potential? Our profession is not very good at forecasting changes in the supply side of the economy. Since 1979, the US *Blue Chip* Consensus of some 50-60 US economists have overpredicted US inflation 10-years out, each time by an average of ¾%.[3]

Our Chief Economist, Bruce Kasman, always reminds me that over the long run, inflation is a policy choice, but how do we then forecast what choices will be made by policy makers and the voters and broad society that appoint them? Are we still in a world where central banks are almost exclusively focused on inflation, or will jobs growth, financial stability, and government borrowing costs get a larger weight than they have the past few decades? We think so but can't give you a model on this and thus can't say "You have to believe me." We think about an average rate of 3% in the US for the next decade, with US inflation breakevens giving us only about 2 ¼%.[4]

What does this mean for forecasting the long-term real return on asset portfolios? Real is nominal minus inflation. We can reasonably project nominal returns 10 years out, but if we can't do inflation, that leaves us up the creek, as they say. Many pension funds have a real return target, frequently ~4% + inflation, as in Canada and Australia. We think it is tough on them. We can see why they hold a lot of real estate and infrastructure where revenues are indexed to inflation, but for the main part of their bond and equity holdings, they will simply have to make an "assumption" on inflation.

In short, **No, we do not think we can reliably forecast long-term inflation and real asset returns.**

Watch the video on LinkedIn.

3. See our paper on this in Long-term economic growth forecasts, Oct 10, 2022.
4. For more details on this view, see the Macro risk cluster discussed in our long-term risk paper: Top long-term risks and what to do about them, July 18, 2023.

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11. Top long-term risks

You all must receive at the start of each year strategists' lists of that year's Top Risks. We had a good look at what we see as top long-term risks that can affect markets over the coming decade. There is some overlap with the usual short-term risks, but most are quite different.

None of these risks will be unknown to you, and markets already price in the average investor's views of their odds, timing, and impact. But in many cases, we think they have higher odds and more adverse impacts than is priced in. Ordered from most impactful to markets to least, for us they come from **Climate Change and the destruction of Nature, worsening US/China tensions, a Tech/AI boom, aging populations, weakened inflation control, DM government debt crises, domestic polarization, and post-GFC market structure**.

The majority of these risks, Tech excluded, by our reckoning, bring **higher interest rates, upward pressures on prices/ inflation, a weaker dollar, lower growth, EM underperformance, and higher macro and market volatility and risk premia**. This world benefits the active investor. If realized and more extreme than expected, these forces will likely give us somewhat lower nominal returns on the global bond and equity market than their current prices suggest. But most of the impact would be on the different performance of countries, regions, sectors, and asset classes.

Investors concerned about these longer-term risks should overweight bonds up to five-year maturities, cost-efficient macro-active managers, domestic banks, Value, Tech, inexpensive green/sustainable assets, agriculture prices, and inflation linkers against global benchmarks and should underweight longer-duration bonds, JPY, SEK and CHF bonds, the US dollar, P&C insurers, and assets located in areas with higher flood, heat, fire, storm, or droughts risks, which includes a lot of EM.

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12. Does higher macro volatility tell you anything about where you should take risk?

How does Macro volatility affect where and when you should be taking risk? We have been arguing to you that we are likely in a period of sustained higher macro volatility than we have seen in previous decades, likely caused by instability of the central bank's control functions – NAIRU, r*, the Phillips curve – some de-globalization, a probable return of the dual mandate of the Federal Reserve, making it less exclusively focused on purely stabilizing inflation, and raising the focus on jobs.[5]

To us, that gives higher, short-dated macro volatility, also market volatility, and that ought to translate into higher long-term uncertainty too – although not one for one. Hence, the long-term investor, seeing somewhat higher long-term risks, should be less purely focused in equities. More tactical investors seeing higher short-dated volatility now at least have the necessary condition in place, not by itself a sufficient one, to make better returns from tactical risk-taking. As we see already, hedge funds have done very well here.

So, we conclude by putting it a very simply: **higher macro volatility gives you more tactical risk-taking, less strategic. We would call it less SAA, more TAA.**

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Library of past issues

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Where are we in Regime Change? Macro volatility, deglobalization, and secular rise in real yields, November 8, 2022

Long-run economic growth forecasts, October 10, 2022

Bigger questions, shorter answers, June 21, 2022

5. See Where are we in Regime Change? Macro volatility, deglobalization, and secular rise in yields, Nov 8, 2022.

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