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THE NEW 60/40

AN INVESTING MINDSET FOR TODAY'S MARKET

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We make two simple but critical points. First the bad news: if investors continue to invest as they have traditionally, many will fail to meet their investing goals. Second, the good news: we believe investors can significantly increase the likelihood of meeting their objectives. However, doing so will require adopting a fundamentally new investing mindset.

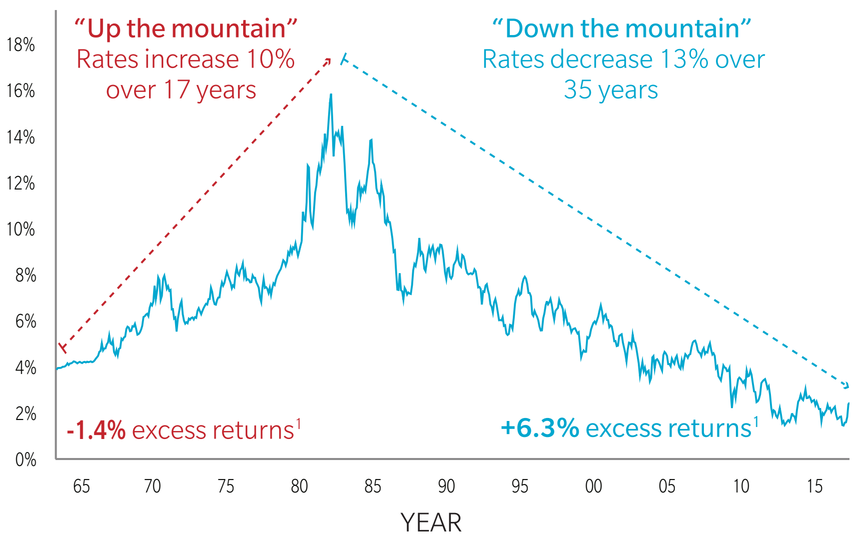
THE CHALLENGE

The main culprit is low interest rates around the world. With interest rates this low, we expect the next twenty years will likely see rates rising. This is a problem for investors, since rising rates are bad for returns on fixed income, and bad for returns on stocks too.

To see just how influential rates are in driving returns, consider what an investor holding the 60/40 portfolio would have earned over the last 50 years. As Exhibit 1 shows, from 1964-1982 when rates were "climbing up the mountain," investors in the 60/40 earned -1.4% per year relative to the risk-free rate, and that's before taking out taxes and fees.

Exhibit 1: Investors have benefited from an historic decline in interest rates

10-YEAR TREASURY YIELD



1. On a 60/40 portfolio

2. The performance of the S&P 500 Total Return Index and the 10-Year Constant Maturity Treasury are used to estimate the nominal returns of the 60 / 40. Excess returns are over the 3-month Treasury yield.

Sources: Bloomberg, FRED.

In contrast, the trip "walking down the mountain" was a breeze; returns over the risk-free rate averaged +6.3% per year. Investors today are about as deep in the valley as they have ever been — peering up at an arduous climb back uphill.

This puts investors in a difficult position: they could try to "turn the dial" on their portfolios towards equities to boost returns. However, that brings with it the risk of losing an unacceptable amount of money in a market crash and never being able to recover, especially if they are near retirement. But if they try to turn toward bonds to protect the downside, they simply don't earn enough. This is the central dilemma facing investors today.

THE GOOD NEWS

Fortunately, there is a solution to the dilemma. The answer is for investors to add new investments that can both a) provide good enough returns to grow their wealth, and b) provide sufficient diversification to protect their wealth. But where can investors find these investments? It starts by recognizing that the investable universe is much, much larger than what investors think.

THE EXPANDING UNIVERSE

Most portfolios are over-concentrated in domestic equities and bonds, which leads to a reliance on one main thing (equities) for all the return and one main thing (bonds) for all the diversification. The reality is that domestic stocks and bonds are small parts of the investable universe — investors have many other sources of returns they can access, with those options only growing in the future, as Exhibit 2 highlights.

Exhibit 2: Domestic equities and bonds are a fraction of the investable universe

Current investable universe

- $20 Tn S&P 500
- $13 Tn US Treasuries
- $7 Tn Other US Equities
- $42 Tn Global Equities
- $4 Tn Private Equity
- $19 Tn Other US Bonds
- $57 Tn Global Bonds
- $11 Tn Securitized Loans
- $16 Tn Commodities
- $2 Tn REITS
- $79 Tn Real Estate[1]

Emerging investable universe

- $23 Tn Bank Loans
- <$1 Tn Other
- $7 Tn Insurance Reserves
- $136 Tn Private Real Estate

Future investable universe

- Artwork
- Bitcoin
- Drug Royalties
- Income Share Agreements
- Intellectual Property

1. For a complete description of sources by asset class, see Appendix A.

Sources: ACLI, AON, BIS, Bloomberg, CoreLogic, Federal Reserve Board, Guy Carpenter, NAIC, OECD, Oliver Wyman estimates, Preqin, Savills Studley, SIFMA, SNL, TEFAF, Thomson Reuters, UN, University of St Gallens, World Federation of Exchanges.

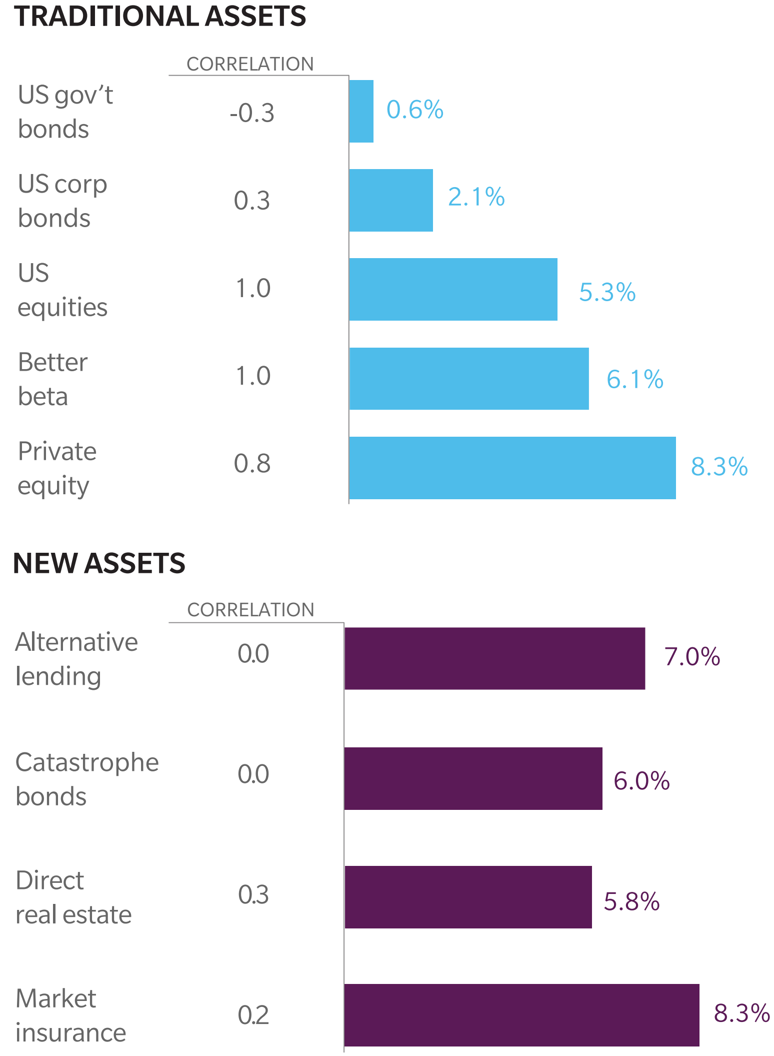
To be fair, most investors have been diversifying into other types of investments like global equities and bonds, but that is only helpful at the margin. Not only are these allocations generally small, but the characteristics of these investments aren't all that different from what is already in investors' portfolios. The real benefit comes from accessing investments that can serve as substitutes for bonds to diversify equity risk, but without sacrificing the equity-like returns investors need.

Where can investors find these alternative investments? The short answer is...everywhere. From niche asset classes, to returns generated through exploiting behavioral biases, to the massive exposures hidden in financial institution balance sheets — it is only when investors begin exploiting all the available opportunities that they will be on a path toward success.

Exhibit 3 provides an example of what these new investments look like and how their expected returns compare to more "traditional" asset classes. We also show the correlations of these assets to domestic equities to provide an indication of how well they can diversify the portfolio. (The lower the correlation, the more diversifying it is.)

Note the characteristics of the new investments: they have returns similar to those of equities, i.e., they aren't "low risk, low returning" like bonds. But like bonds, *they are uncorrelated to equities, which means they can serve as powerful diversifiers to the portfolio*. It is possible to achieve higher returns to grow an investor's wealth, while reducing risk through diversification. The path forward is being illuminated.

Exhibit 3: Expected returns and correlations of traditional and "new" asset classes



1. See Appendix B for the sources of the estimated returns by asset class, and Appendix C for the correlation assumptions.

2. All returns are nominal and gross of taxes/fees.

3. Correlations are measured versus S&P 500

Sources: Bloomberg, JPMorgan Long Term Capital Markets Assumptions (2017), Oliver Wyman industry sources, Oliver Wyman analysis.

A BLUEPRINT FOR A NEW PORTFOLIO

Investors need a "blueprint" for how to build a portfolio out of these diverse (and for many, unfamiliar) investments. Investors can build dramatically better portfolios by following three simple rules:

Rule#1: Find investments that should deliver a positive return
All investments need to "pull their own weight" in the portfolio and offer a sufficiently high expected return to meet your objectives.

Rule #2: Add enough different investments to diversify your portfolio
Generating consistent returns and protecting against the downside requires allocating meaningful amounts to a wide range of investments.

Rule #3: Don't have unnecessary liquidity
Having liquidity that you don't need (e.g., having all holdings in daily redeemable funds) acts like a "tax" that lowers returns.

Following these rules will lead investors down a different path:

Bonds (0%) Applying Rule #1 implies 0% bonds, as their expected returns are so low and risk profiles so unfavorable (no upside, lots of downside), that they don't make sense to own.

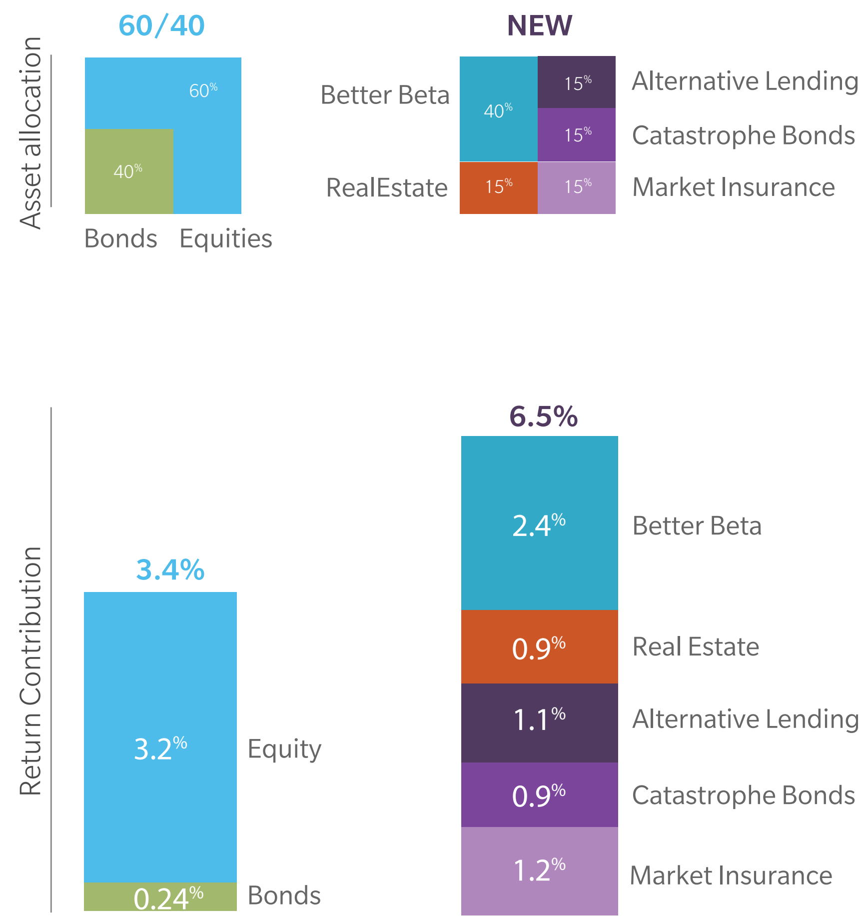
Equities (20-40%) Equities will still have an important place in the portfolio, but how they are held will be different. Specifically, despite the improvement that index investing represents over actively managed funds, there is further improvement possible by using strategies that systematically "tilt" towards riskier (and therefore higher returning) parts of the stock market, i.e., "Better Beta" funds.[1]

"New" asset classes (60-80%) New asset classes become the core holdings because they have sufficiently high expected returns (Rule #1), offer the diversification benefit of bonds (Rule #2) and do not have unnecessary liquidity that long-term, non-cash constrained investors don't need (Rule #3).

The new portfolio has dramatically higher returns, is more diversified, doesn't pay for liquidity it doesn't need, and as we will see in a moment, leads to dramatically better outcomes for investors.

1. This is done through equity "factor" investing where stocks are selected based on characteristics such as size, momentum and quality.

Exhibit 4: The traditional portfolio vs. the new portfolio



1. See Appendix B for the sources of the estimated returns by asset class.
2. All returns are nominal and gross of taxes/fees.
3. For purposes of illustration we assume a risk-free rate of 0.25%.

Sources: Bloomberg, FRED, JPMorgan Long Term Capital Markets Assumptions (2017), Oliver Wyman industry sources, Oliver Wyman analysis.

INVESTORS HAVE A CHOICE:
FAIL COMFORTABLY OR SUCCEED UNCOMFORTABLY

Making dramatic changes to a portfolio is not easy, and many might consider it highly risky. We would argue the exact opposite; that this is actually a *more conservative* way to invest. Conservatism is not investing in "simple" or "low risk" assets if that has a higher likelihood of failing; conservatism is investing in a portfolio that has a higher likelihood of success. In other words, *making bold moves is actually the conservative thing to do*, which is a change in mindset for most investors. Of course, investors do have a choice: fail comfortably or succeed uncomfortably.

To provide a sense of how much the new portfolio helps improve an investor's ability to meet a range of different types of goals, we simulated thousands of potential return paths (after all, no one knows exactly what future returns will actually be) for the new and 60/40 portfolios. The results are shown in Exhibit 5.

Exhibit 5: The potential benefits of switching to the new portfolio

Or

Or

Spend $160,000 right now and still be comfortable that you'll have money left over

Leave $1.2 million more to your family after 30 years

Withdraw $37,000 per year instead of $31,000 and still be sure you won't run out of money

1. Model inputs & assumptions. Starting portfolio value: $1MM. Risk tolerance: Low (requires 95% likelihood of not running out of money) Age: 62.
Years in retirement: 30.

2. See Appendix C for a detailed description of how the potential benefits of switching to the new portfolio were estimated.

Source: Oliver Wyman analysis.

Whether the retiree wants to spend more each year, leave more to his children or grandchildren, live the high life for a couple of years, or just throw an epic 92nd birthday party, investing in the new portfolio gives him the flexibility to make those choices without increasing the chances that he'll run out of money.

OVERCOMING THE HURDLE TO CHANGE:
REGRET SYNDROME

Making dramatic changes like this is not easy and investors will invariably cite a number of reasons why they are unable to move in this direction. Chief among these is what is known as "regret syndrome," which is the fear that if you do something different from others, you are going to regret it. In this case, it would mean the new portfolio underperforms the traditional one. While this is totally understandable psychologically, it relies on faulty logic, as our analysis highlights. Using the same simulation model discussed above, we estimated the probability that the new portfolio underperforms the traditional 60/40. The results should comfort investors: over 1 year, the chance is about 1 in 4; over a 5-year horizon, the chance falls to less than 1 in 10, and it becomes negligible over even longer time horizons. Of all the risks investors can take, this is one that they should be more than willing to assume.

CONCLUSION

Investors have a choice to make. Do they comfortably fail or uncomfortably succeed? Failing comfortably means investing largely as before and making incremental changes; succeeding uncomfortably means adopting a new mindset and fundamentally altering what portfolios look like. In the approach described in this paper, making this change implies turning the traditional portfolio inside-out, where core holdings become the satellites and a new breed of alternative asset classes become the core. Even if each portion of this new portfolio is risky (which is what generates the higher return), investing in many different, uncorrelated investments provides the opportunity to have positive performance over a year or a decade even if something goes wrong in one or more of them. Admittedly, this is going to be a huge change, and many investors won't get there overnight. But a path forward has been illuminated. Whether investors choose to move cautiously or speed courageously along it, the direction is clear.

APPENDIX A

THE EXPANDING INVESTABLE UNIVERSE

ASSET CLASS	SOURCE
US equities	Bloomberg, World Federation of Exchanges
US bonds	Bloomberg, Federal Reserve Board, SIFMA
Global equities	World Federation of Exchanges
Global bonds	BIS, SIFMA
Private equity	Preqin
Securitized Loans	Thomson Reuters, SIFMA
Insurance assets	Aon, Bloomberg, Guy Carpenter, NAIC, University of St Gallens ILS report
Real estate (REITs)	SNL
Real estate (other investable)	Savills Studley
Infrastructure funds	Bloomberg
Commodities	UN Commodity Statistics Report
Private real estate	Savill's
Insurance reserves	ACLI, AON
Bank loans	Bloomberg, CoreLogic, FDIC, Federal Reserve Board

NOTES

1. Data shown are the most recent available.
2. Securitized loans includes CLO, CAO, CBO, ABS, CMBS, and RMBS (agency and non-agency).
3. Insurance assets includes catastrophe bonds/ILS, life securitization, and surplus notes. Insurance assets are included in "Other" in Exhibit 2.
4. Bank loans includes residential mortgages, HELOCs, small business, corporate, commercial real estate, and syndicated/leveraged loans.

1. Insurance reserves includes global P&C and Life insurance reserves.
2. Real estate includes residential, commercial, and farmland available for investment, less the value of REITs.
3. Infrastructure funds are included in "Other" in Exhibit 2.
4. Private real estate includes residential, commercial, and farmland not yet available for investment.

APPENDIX B

EXPECTED RETURNS ABOVE RISK-FREE RATE

ASSET CLASS	GROSS-OF-FEE	NET-OF-FEE	SOURCE
US Government Bonds	**0.35**	**0.25**	JPM
US Corporate Bonds	**1.85**	**1.25**	JPM
US equities	**5.00**	**4.25**	JPM
Better Beta	**5.80**	**5.05**	Bloomberg, JPM
Private Equity (Buyouts)	**8.00**	**6.00**	JPM
Alternative Lending	**6.75**	**4.75**	JPM
Catastrophe Bonds	**5.75**	**3.75**	Bloomberg
Direct Real Estate	**5.50**	**3.50**	JPM
Market Insurance	**8.00**	**6.00**	OW

APPENDIX C

CAPITAL MARKET ASSUMPTIONS

	RETURN	VOLATILITY	SOURCE
Equities	**5.00**	14.75	a
Treasuries	**0.35**	6.25	b
Direct Real Estate	**5.50**	10.75	c
Direct Lending	**6.75**	9.75	d
Catastrophe Bonds	**5.75**	10.00	e
Market Insurance	**8.00**	10.00	f

	CORRELATIONS					
	EQUITIES	TREASURIES	DIRECT REAL ESTATE	DIRECT LENDING	CATASTROPHE BONDS	MARKET INSURANCE
Equities	1.00	-0.30	0.30	0.33	0.00	0.20
Treasuries		1.00	-0.40	0.34	0.00	0.00
Direct Real Estate			1.00	0.12	0.00	0.00
Direct Lending				1.00	0.00	0.00
Catastrophe Bonds					1.00	0.00
Market Insurance						1.00

Source: a) JP Morgan LT CMAs (US large cap equities) b) JP Morgan LT CMAs (US intermediate treasuries) c) JP Morgan LT CMAs (US core direct real estate) d) JP Morgan LT CMAs (direct lending) e) Historical Swiss Re Cat Bond Index (2002-2015) f) Oliver Wyman industry sources.

OVERVIEW OF METHODOLOGY

- Generate an array of correlated normal random variables, based on the volatilities and correlations of each asset class
- Add the correlated normal random variables to the expected returns (excess returns over cash) and subtract out fees to obtain simulated correlated returns, net of fees
- Calculate the total principal in the portfolio at the end of each period by summing the principal in each asset, after the period's returns
- Calculate withdrawals as a percentage of the initial principal, adjusted for inflation in each period, using the forward implied cash rate and subtract withdrawals from the total portfolio principal
- Rebalance the portfolio each month to the target asset allocation
- If the total principal in the portfolio falls below 0, the portfolio has "run out of money" for the remainder of the simulation
- Repeat the above steps for the number of months and simulations specified

ASSUMPTIONS AND LIMITATIONS

- Returns are assumed to be normally distributed, which will understate tail risks
- Cholesky decomposition is used to generate correlated random returns
- Withdrawals are calculated as a fixed percentage of starting wealth, increased for inflation every month, to reflect how many retirees size portfolio withdrawals
- 4% withdrawals and a 30-year investment time horizon are used as default values to represent retirement planning "rules of thumb"
- Monthly portfolio balancing is used to prevent pro-rata withdrawals from resulting in negative values for individual assets
- Transaction costs are assumed to be negligible

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