Principles for successful long-term investing

Using Insights to achieve better client outcomes
THE KEY TO SUCCESSFUL INVESTING ISN’T PREDICTING THE FUTURE, IT’S LEARNING FROM THE PAST AND UNDERSTANDING THE PRESENT. IN “PRINCIPLES FOR SUCCESSFUL LONG-TERM INVESTING,” WE PRESENT SEVEN TIME-TESTED STRATEGIES FOR GUIDING INVESTORS AND THEIR PORTFOLIOS THROUGH TODAY’S CHALLENGING MARKETS AND TOWARD TOMORROW’S GOALS. YOU WILL FIND SLIDES FROM OUR INDUSTRY-LEADING GUIDE TO THE MARKETS AND GUIDE TO RETIREMENT, ALONG WITH COMMENTARY PROVIDING ADDITIONAL PERSPECTIVE AND ACTION STEPS.
PRINCIPLES FOR SUCCESSFUL LONG-TERM INVESTING

1. PLAN ON LIVING A LONG TIME
2. CASH ISN’T ALWAYS KING
3. HARNESS THE POWER OF DIVIDENDS AND COMPOUNDING
4. AVOID EMOTIONAL BIASES BY STICKING TO A PLAN
5. VOLATILITY IS NORMAL; DON’T LET IT DERAIL YOU
6. STAYING INVESTED MATTERS
7. DIVERSIFICATION WORKS
PLAN ON LIVING A LONG TIME

LEFT:  **We are living longer**

Thanks to advances in medicine and healthier lifestyles, people who are 65 today have a very good chance of reaching ages 80 or 90. A 65-year-old couple might be surprised to learn that at least one of them has a 48% probability of living another 25 years and needing investments to last until age 90.

RIGHT:  **Many of us have not saved enough**

Studies reveal that individuals do not feel adequately prepared for retirement. Investors should start early by saving more, investing with discipline and having a plan for their future.
Life expectancy and pension shortfall

### Probability of reaching ages 80 and 90

*Persons aged 65, by gender, and combined couple*

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Couple – at least one lives to specified age</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 years</td>
<td>63%</td>
<td>73%</td>
<td>90%</td>
</tr>
<tr>
<td>90 years</td>
<td>22%</td>
<td>33%</td>
<td>48%</td>
</tr>
</tbody>
</table>

*Source: J.P. Morgan Asset Management; (Left) SSA 2013 Life Tables; (Right) “The Future of Retirement: Life after work?” study by HSBC. Figures represent the expected portion of retirement that will not be covered by retirement savings based on survey data.*

*Guide to the Markets – U.S. Data are as of September 30, 2016.*

### Perceived retirement shortfall by country

<table>
<thead>
<tr>
<th>Country</th>
<th>Expected savings shortfall (years)</th>
<th>Savings expected to last (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>UK</td>
<td>12</td>
<td>10</td>
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<tr>
<td>U.S.</td>
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<td>France</td>
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</tr>
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<td>Mexico</td>
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<td>10</td>
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<td>UAE</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

*Investing principles*
Cash pays less
Investors often think of cash as a safe haven during volatile times, or even as a source of income. But the ongoing era of ultra-low interest rates has depressed the yields on most cash instruments to near-zero—well below the rate of inflation. With rates expected to rise slowly as the Federal Reserve gradually normalizes monetary policy, investors should be sure an allocation to cash does not undermine their long-term investment objectives.

There is a lot of it
More than $12 trillion of cash—roughly two-thirds the size of U.S. GDP—still sits on the “sidelines,” earning next to nothing and largely missing out on a truly historic bull market.
Annual income generated by $100,000 investment in a 6-mo. CD

M2 money supply as a % of nominal GDP

Source: FactSet, J.P. Morgan Asset Management; (Top left) Bankrate.com; (Bottom left and right) BEA, Federal Reserve, St. Louis Fed.
All cash measures obtained from the Federal Reserve are latest available seasonally adjusted month averages. All numbers are in billions of U.S. dollars. Small-denomination time deposits are those issued in amounts of less than $100,000. All IRA and Keogh account balances at commercial banks and thrift institutions are subtracted from small time deposits. Annual income is for illustrative purposes and is calculated based on the 6-month CD yield on average during each year and $100,000 invested. IRA and Keogh account balances at money market mutual funds are subtracted from retail money funds. Past performance is not indicative of comparable future results. *3Q M2 money supply as a % of GDP is a J.P. Morgan Asset Management estimate.

Guide to the Markets – U.S. Data are as of September 30, 2016.
HARNESS THE POWER OF DIVIDENDS AND COMPOUNDING

**TOP:** The power of dividends and compounding

In this simple illustration, an initial investment of $10,000 in the S&P 500 price return index would have grown to over $200,000 since 1970. But if dividend payments were included, reinvested and allowed to compound over time, that same $10,000 investment would be worth more than $900,000 today.

**BOTTOM:** Investing in risk assets is critical

Many investors shy away from the stock market, unwilling to take on added risk. But this chart shows a staggering difference in the value of $10,000 invested in a variety of different asset classes over time, ranging from low-risk T-bills to U.S. small cap stocks.

*There is no guarantee that companies will declare, continue to pay or increase dividends.*
The power of compounding

S&P 500 price return versus total return, growth of $10,000, quarterly

- With dividends reinvested
- Price return only

Source: Ibbotson, Standard & Poor's, J.P. Morgan Asset Management.

Guide to the Markets – U.S. Data are as of September 30, 2016.

Major asset classes versus inflation
Growth of $10,000 from 1947-2015, annual, log scale, USD thousands

- Small cap stocks
- Large cap stocks
- Bonds
- T-bills
- Inflation

Sep. 2016:
- $986,078
- $241,914

'47 '54 '61 '68 '75 '82 '89 '96 '03 '10 '15

Source: Ibbotson, Standard & Poor's, J.P. Morgan Asset Management.
AVOID EMOTIONAL BIASES BY STICKING TO A PLAN

TOP:  
In good times and bad, stick to a plan

Some investors lament the fact that a diversified portfolio has failed to keep up with the raging bull market since 2009. This is only half of the story! As the chart shows, a portfolio that included bonds reduced losses during the financial crisis, enabling the diversified portfolios shown to recover much faster than stocks alone.

BOTTOM: The heavy cost of market timing

This chart is based on the famous Dalbar study titled “Quantitative Analysis of Investor Behavior.” This study estimates that over the last 20 years, the average investor has achieved a scant 2.1% annualized return as compared to more than 7% in a 60/40 stock/bond portfolio, thanks in part to badly timed (and often emotionally driven) investment decisions.

Diversification does not guarantee investment returns and does not eliminate the risk of loss. Diversification among investment options and asset classes may help to reduce overall volatility.
In this chart, we can see the performance of different asset classes over a 20-year period (1996–2015). The chart is divided into two sections: Portfolio returns for Equities vs. equity and fixed income blend and 20-year annualized returns by asset class.

**Portfolio returns: Equities vs. equity and fixed income blend**

- **Oct. 2007:** S&P 500 peak
- **Mar. 2009:** S&P 500 portfolio loses over $50,000
- **Nov. 2009:** 40/60 portfolio recovers
- **Oct. 2010:** 60/40 portfolio recovers
- **Mar. 2012:** S&P 500 recovers

**20-year annualized returns by asset class (1996 – 2015)**

- REITs: 10.9%
- S&P 500: 8.2%
- 60/40 stocks & bonds: 7.2%
- 40/60 stocks & bonds: 6.7%
- Bonds: 5.3%
- Gold: 5.2%
- EAFE: 4.8%
- Homes: 3.4%
- Oil: 3.3%
- Inflation: 2.2%
- Average investor: 2.1%

Source: J.P. Morgan Asset Management; (Top) Barclays, FactSet, Standard & Poor’s; (Bottom) Dalbar Inc. Indexes used are as follows: REITs: NAREIT Equity REIT Index, EAFE: MSCI EAFE, Oil: WTI Index, Bonds: Barclays U.S. Aggregate Index, Homes: median sale price of existing single-family homes, Gold: USD/troy oz, Inflation: CPI, 60/40: A balanced portfolio with 60% invested in S&P 500 Index and 40% invested in high quality U.S. fixed income, represented by the Barclays U.S. Aggregate Index. The portfolio is rebalanced annually. Average asset allocation investor return is based on an analysis by Dalbar Inc., which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior. Returns are annualized (and total return where applicable) and represent the 20-year period ending 12/31/15 to match Dalbar’s most recent analysis.

*Guide to the Markets – U.S.* Data are as of September 30, 2016.
AVOID EMOTIONAL BIASES BY STICKING TO A PLAN (PART 2)

LEFT: **Home-country bias**
While the United States still boasts the single largest economy in the world, it accounts for only a small fraction of global GDP and just over 20% of the world’s capital markets. Yet, statistics show that U.S. investors have nearly 75% of their investments in U.S.-based assets.

RIGHT: **Familiarity bias and concentrated positions**
Our investment biases show up in other ways too. Where we live, and even our field of expertise, can influence the way we allocate our assets. It is important that investors are aware of these biases and employ a disciplined investment plan that can help minimize their influence.

*Global stock and bond markets data are as of 2013. **U.S. investor allocation is the total value of investments in global or domestic equity mutual funds and ETFs. ***Investor allocation by region is based on data collected by Openfolio. Average sector allocations at the national level are determined by looking at the sector allocations of over 20,000 brokerage accounts, and taking a simple average. Portfolio allocations are then evaluated on a regional basis, and the regional averages are compared to the national average to highlight any investor biases. Further details can be found on openfolio.com.

Guide to the Markets – U.S. Data are as of September 30, 2016.
VOLATILITY IS NORMAL; DON’T LET IT DERAIL YOU

Seeing through the noise
Every year has its rough patches. The red dots on this chart represent the maximum intra-year decline in every calendar year for the S&P 500, since 1980. While these pull-backs can’t be predicted, they can be expected; after all, markets suffered double-digit declines in 20 of the last 36 years.

But despite the many pull-backs, roughly 75% of those years ended with positive returns, as reflected by the gray bars. Investors need a plan for riding out volatile periods instead of reacting emotionally.
S&P 500 intra-year declines vs. calendar year returns
Despite average intra-year drops of 14.2%, annual returns positive in 27 of 36 years

Source: FactSet, Standard & Poor’s, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2015, except for 2016, which is year to date.

Guide to the Markets – U.S. Data are as of September 30, 2016.
VOLATILITY IS NORMAL; DON’T LET IT DERAIL YOU (PART 2)

Sometimes the bumps are buying opportunities

For disciplined investors, market volatility can represent an opportunity to acquire more shares at a better price (provided, of course, they are willing to take a long-term view). The current bull market has been a great example, with many pull-backs that turned into buying opportunities along the way.
Market volatility

**Major pullbacks during current market cycle**

S&P 500 Price Index

- Jul. 2, 2010: -16.0%
- Oct. 3, 2011: -19.4%
- Jun. 1, 2012: -9.9%
- Jun. 24, 2013: -5.8%
- Oct. 15, 2014: -7.4%
- Aug. 25, 2015: -12.4%
- Feb. 11, 2016: -13.3%

**Volatility**

VIX Index

- Jul. '10: Flash Crash, BP oil spill, Europe/Greece
- Oct. '11: U.S. downgrade, Europe/Periphery stress
- Jun. '12: Euro double dip
- Jun. '13: Taper Tantrum
- Oct. '14: Global slowdown fears, China, Ebola
- Aug. '15: Global slowdown fears, China, Fed uncertainty
- Feb. '16: Oil, U.S. recession fears, China

<table>
<thead>
<tr>
<th>VIX</th>
<th>Level</th>
</tr>
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<tbody>
<tr>
<td>'08 Peak</td>
<td>80.9</td>
</tr>
<tr>
<td>Average</td>
<td>18.1</td>
</tr>
<tr>
<td>Latest</td>
<td>13.3</td>
</tr>
</tbody>
</table>

Source: FactSet, Standard & Poor’s, J.P. Morgan Asset Management; (Bottom) CBOE. Drawdowns are calculated as the prior peak to the lowest point. *Guide to the Markets – U.S. Data* are as of September 30, 2016.
It’s always darkest just before dawn

Market timing can be a dangerous habit. Sometimes, investors think they can outsmart the market; other times, fear and greed push them to make emotional, rather than logical, decisions.

From our *Guide to Retirement*, this chart is a sobering reminder of the potential costs of market timing. By missing some of the market’s best days, investors can lose out on critical opportunities to grow their portfolio, with devastating results. Importantly, as the slide also notes, “Six of the 10 best days occurred within two weeks of the 10 worst days.”
Impact of being out of the market

Returns of S&P 500
Performance of a $10,000 investment between January 2, 1996 and December 31, 2015

Six of the 10 best days occurred within two weeks of the 10 worst days

This chart is for illustrative purposes only and does not represent the performance of any investment or group of investments.
Source: J.P. Morgan Asset Management analysis using data from Morningstar Direct. 20-year annualized returns are based on the S&P 500 Total Return Index, an unmanaged, capitalization-weighted index that measures the performance of 500 large capitalization domestic stocks representing all major industries. Past performance is not indicative of future returns. An individual cannot invest directly in an index. Data as of December 31, 2015.

PLAN TO STAY INVESTED
Trying to time the market is extremely difficult to do consistently. Market lows often result in emotional decision making. Investing for the long term while managing volatility can result in a better retirement outcome.
**Good things come to those who wait**

While markets can always have a bad day, week, month or even year, history suggests investors are less likely to suffer losses over longer periods.

This chart illustrates the concept. While one-year stock returns have varied widely since 1950 (+47% to -39%), a blend of stocks and bonds has not suffered a negative return over any five-year rolling period in the past 65 years.

*Important disclaimer: Investors should not necessarily expect the same rates of return in the future as we have seen in the past, particularly from bonds, which are starting with very low yields today.*
Range of stock, bond and blended total returns
Annual total returns, 1950-2015

Investing principles

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Annual avg. total return</th>
<th>Growth of $100,000 over 20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocks</td>
<td>11.1%</td>
<td>$819,296</td>
</tr>
<tr>
<td>Bonds</td>
<td>6.0%</td>
<td>$321,853</td>
</tr>
<tr>
<td>50/50 portfolio</td>
<td>8.9%</td>
<td>$555,099</td>
</tr>
</tbody>
</table>

Returns shown are based on calendar year returns from 1950 to 2015. Stocks represent the S&P 500 Shiller Composite and Bonds represent Strategas/Ibbotson for periods from 1950 to 2010 and Barclays Aggregate thereafter. Growth of $100,000 is based on annual average total returns from 1950 to 2015.

Guide to the Markets – U.S. Data are as of September 30, 2016.
Diversification has served its purpose

The last 15 years have provided a volatile and tumultuous ride for investors, with multiple natural disasters, numerous geopolitical conflicts and two major market downturns.

Yet despite these difficulties, cash was among the worst performing asset classes shown here. Meanwhile, a well-diversified portfolio of stocks, bonds and other uncorrelated asset classes returned 5.6% per year over this time period (and over 100% on a cumulative total return basis).
**Investing principles**

Source: Barclays, Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor’s, J.P. Morgan Asset Management.

Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Barclays Global HY Index, Fixed Income: Barclays Aggregate, REITs: NAREIT Equity REIT Index. The “Asset Allocation” portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Barclays Aggregate, 5% in the Barclays Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period of 12/31/99 – 12/31/15. Please see disclosure page at end for index definitions. All data represents total return for stated period. Past performance is not indicative of future returns.

*Guide to the Markets – U.S.* Data are as of September 30, 2016.
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