INVESTMENT NEWSLETTER

> *Investment opportunities exist all around the globe.*

THE RANDOMNESS OF GLOBAL EQUITY RETURNS

JUNE 2019
Dimensional Fund Advisors

Across more than 40 countries, there are over 15,000 publicly traded companies.[1] If you listen to the news, however, some countries may seem like better places to invest than others based on how their economies and stock markets are doing at the time. Fluctuations in performance from year to year only add to the complexity, providing little useful information about future returns.

Daunted by the prospects of sorting it out, some investors look to the place they know best—their home market. There can be good reasons, such as tax benefits, for prioritizing an investment close to home, but too much home bias could mean underweighting or missing out on part of the investment universe.

Australia, for example, represents 2% of the global equity market. An Australian who aims to build a global equity portfolio may have cause for investing a greater amount at home. However, this would come with the tradeoff of reduced investment in other countries. The same is true for a Japanese investor, whose home country represents 8% of the global equity market. Even the US equity market—the world's largest by far—is only about half of the global opportunity set.

Fortunately, no one needs to be an expert in every region to benefit from the opportunities those regions present. Equity markets process information continuously, leveraging knowledge from millions of buyers and sellers each day as they set security prices. Investors can trust market prices to provide an up-to-the-minute snapshot of global investment opportunities.

Because prices do such a good job incorporating information about securities in every market, they also offer the best prediction of future prospects. No sensible story or compelling empirical research suggests investors can consistently outguess those prices and pick winning countries. A well-diversified global portfolio can help capture the returns of markets around the world and deliver more reliable outcomes over time.

1 Number of countries and publicly traded companies data provided by Bloomberg.

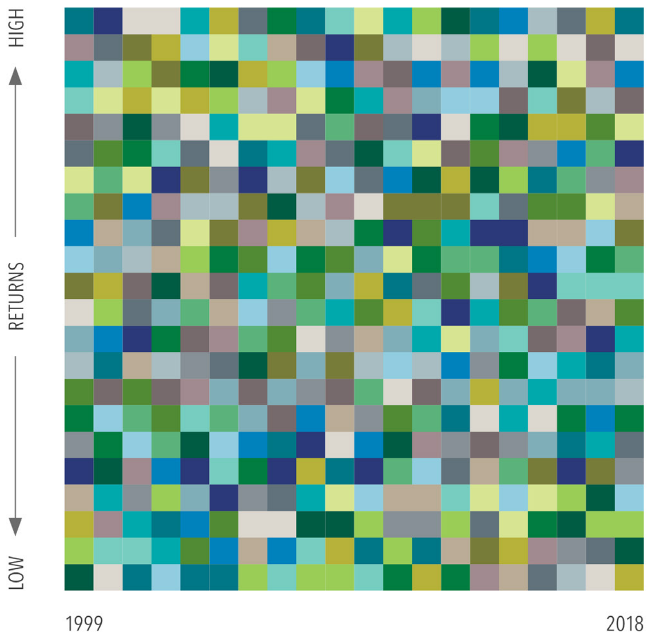
READING THE CHECKERBOARD

The tables in **Exhibit 1** illustrate 20 years of annual equity returns for developed and emerging markets. Each color represents a different country. Each column is sorted top down, from the highest-performing country to the lowest.

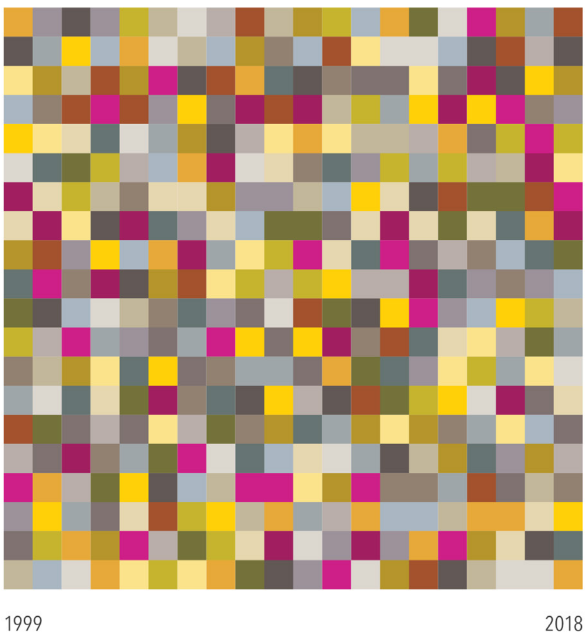
Taken together, these tables powerfully demonstrate the randomness of global equity returns. In either table, pick a color in the first column and follow it through to the right. Does any country seem to follow a pattern that gives clues about its future performance?

Exhibit 1. Annual Returns, *1999–2018*

Developed Markets



Emerging Markets

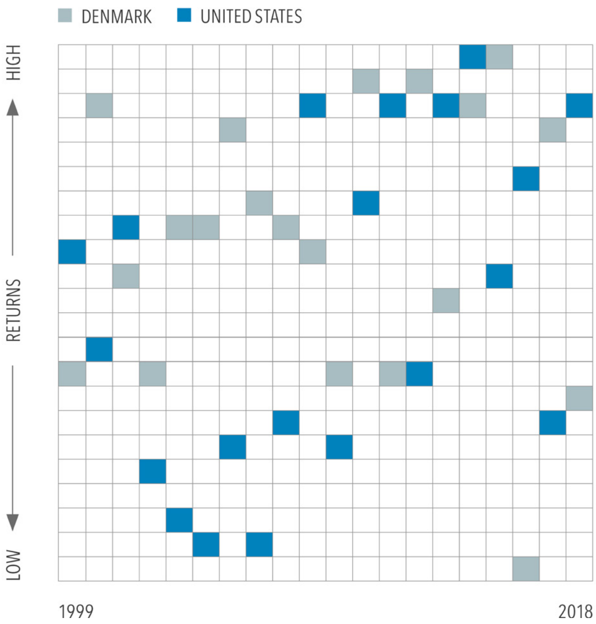


Past performance is no guarantee of future results. MSCI country indices (net dividends) for each country presented. MSCI data © MSCI 2019, all rights reserved

Consider the performance of the US and Denmark, shown in **Exhibit 2**. Is it immediately clear which country had the higher return over the past two decades?

Denmark, in fact, was the best performer among all developed markets, with an annualized return of 9.1%. Surprisingly perhaps, Denmark had the best calendar year return only once, in 2015. The US, despite some strong returns in the last several years, placed ninth overall with an annualized return of 4.9%. Bear in mind, Denmark represents less than 1% of the global market cap available to investors.

Exhibit 2. Who Performed Better over the 20-Year Period?



Past performance is no guarantee of future results. MSCI country indices (net dividends) for each country presented. MSCI data © MSCI 2019, all rights reserved.

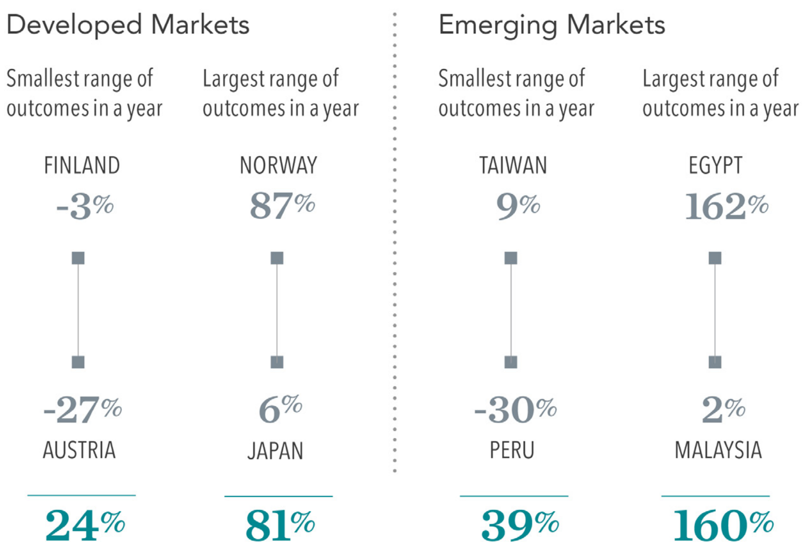
FROM FIRST TO WORST

Denmark also provides an example of the unpredictability in short-term results. After posting the highest developed market return in 2015, Denmark had the lowest return in 2016. Countries have also moved in the opposite direction, from worst to first, in consecutive years. In 2000, New Zealand had the lowest return among developed markets followed by the highest return in both 2001 and 2002. In emerging markets, Hungary and Russia went from the bottom two performers in 2014 to the top two performers in 2015.

GOING TO EXTREMES

In a single year, the difference between the return of the highest-performing country and the lowest can be dramatic, as shown in **Exhibit 3**. Among developed markets over the last 20 years, the difference between the best and worst performers has ranged from a low of 24% in 2018 to as much as 81% in 2009. The differences in emerging markets are even more pronounced, ranging from 39% in 2013 to 160% in 2005. In fact, the difference in emerging markets has exceeded 100% in several years.

Exhibit 3. Return Differences



Past performance is no guarantee of future results. MSCI country indices (net dividends) for each country presented. MSCI data © MSCI 2019, all rights reserved. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

These extreme differences in outcomes, combined with the examples of countries that experienced sharp reversals in their return rankings, highlight the risk of trying to predict future returns by looking at the past and emphasize the importance of diversification across countries.

NOW, THE GOOD NEWS

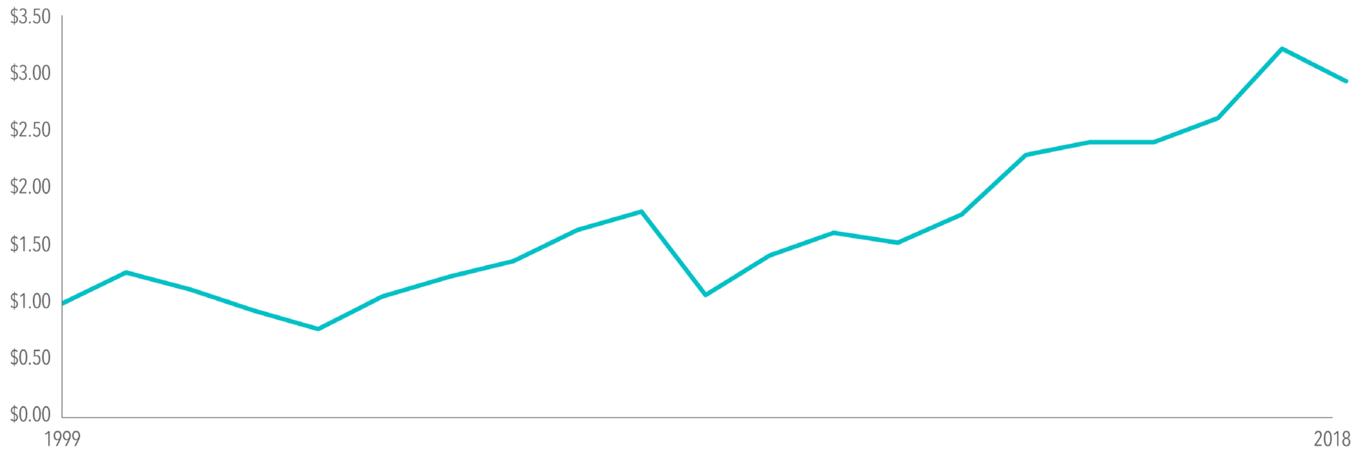
This evidence of the randomness in global equity returns, though, is not bad news for investors. Rather than trying to guess which country is going to outperform when, investors committed to a well-structured, globally diversified portfolio are better positioned to capture the performance of the global markets, where and when it occurs.

Over the last 20 years, every dollar invested in a globally diversified strategy, shown by the Dimensional Global

Market Index in **Exhibit 4**, nearly tripled.

A globally diversified approach can deliver more reliable outcomes over time with less volatility than investing in individual countries. This can help investors stay on track, through all kinds of markets, toward their long-term goals.

Exhibit 4. Growth of $1, *1999–2018*



Past performance is no guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Data presented in the Growth of $1 chart is hypothetical and assumes reinvestment of income and no transaction costs or taxes. The charts are for illustrative purposes only and are not indicative of any investment. See disclosures for more information on the Dimensional Global Market Index.

Source: Dimensional Fund Advisors LP. DIMENSIONAL GLOBAL MARKET INDEX - January 1990–present: Compiled by Dimensional from Bloomberg securities data. Market cap-weighted index of all securities in the eligible markets. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices—each one reconstituted once a year at the end of each quarter of the year. Maximum index weight of any one company is capped at 5%. Countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK, and the US. Exclusions: REITs and investment companies. The index has been retroactively calculated by Dimensional and did not exist prior to April 2008.

There is no guarantee investment strategies will be successful. Investing involves risks, including possible loss of principal. Diversification does not eliminate the risk of market loss.

International investing involves special risks, such as currency fluctuation and political instability. Investing in emerging markets may accentuate these risks.

All expressions of opinion are subject to change. This article is distributed for informational purposes, and it is not to be construed as an offer, solicitation, recommendation, or endorsement of any particular security, products, or services.

PURSUING A BETTER INVESTMENT EXPERIENCE

JUNE 2019
Dimensional Fund Advisors

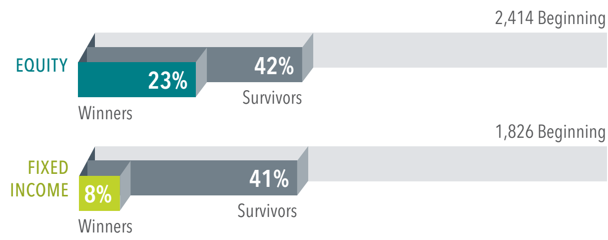
1 | Embrace Market Pricing

The market is an effective information-processing machine. Each day, the world equity markets process billions of dollars in trades between buyers and sellers—and the real-time information they bring helps set prices.

2 | Don't Try to Outguess the Market

The market's pricing power works against mutual fund managers who try to outperform through stock picking or market timing. As evidence, only 23% of US equity mutual funds and 8% of fixed income funds have survived and outperformed their benchmarks over the past 20 years.

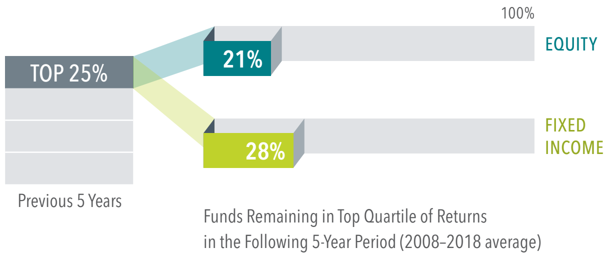
US-Based Mutual Fund Performance, 1999–2018



3 | Resist Chasing Past Performance

Some investors select mutual funds based on their past returns. Yet, past performance offers little insight into a fund's future returns. For example, most funds in the top quartile (25%) of previous five-year returns did not maintain a top-quartile ranking in the following five years.

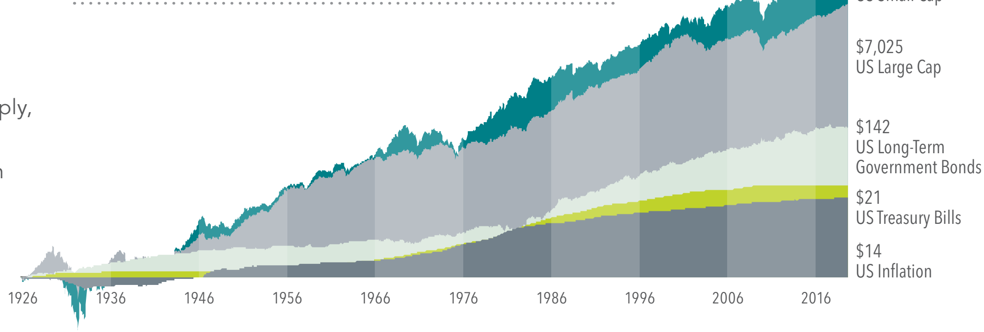
Percentage of Top-Ranked Funds That Stayed on Top



4 | Let Markets Work for You

The financial markets have rewarded long-term investors. People expect a positive return on the capital they supply, and historically, the equity and bond markets have provided growth of wealth that has more than offset inflation.

Growth of a Dollar, 1926–2018 (compounded monthly)



5 | Consider the Drivers of Returns

There is a wealth of academic research into what drives returns. Expected returns depend on current market prices and expected future cash flows. Investors can use this information to pursue higher expected returns in their portfolios.

Dimensions of Expected Returns

EQUITIES

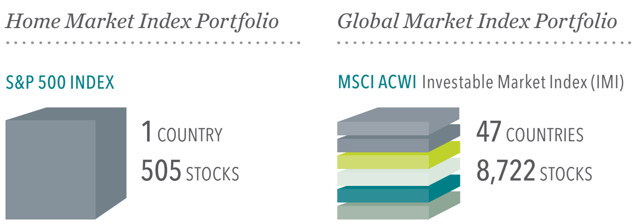
- **Company Size** — Market Capitalization
- **Relative Price** — Price/Book Equity
- **Profitability** — Operating Profits/ Book Equity

FIXED INCOME

- **Term** — Sensitivity to Interest Rates
- **Credit** — Credit Quality of Issuer
- **Currency** — Currency of Issuance

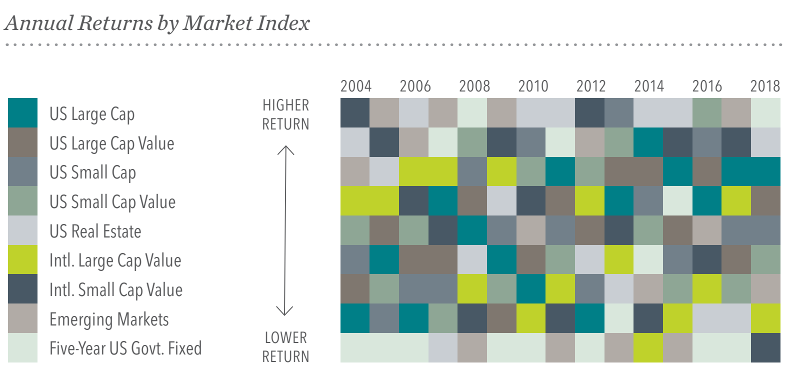
6 | Practice Smart Diversification

Holding securities across many market segments can help manage overall risk. But diversifying within your home market may not be enough. Global diversification can broaden your investment universe.



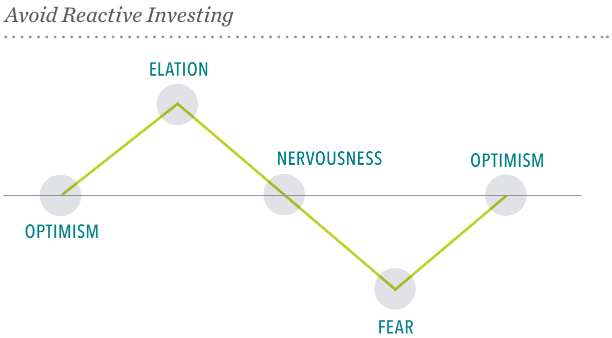
7 | Avoid Market Timing

You never know which market segments will outperform from year to year. By holding a globally diversified portfolio, investors are well positioned to seek returns wherever they occur.



8 | Manage Your Emotions

Many people struggle to separate their emotions from investing. Markets go up and down. Reacting to current market conditions may lead to making poor investment decisions.



9 | Look Beyond the Headlines

Daily market news and commentary can challenge your investment discipline. Some messages stir anxiety about the future, while others tempt you to chase the latest investment fad. When headlines unsettle you, consider the source and maintain a long-term perspective.

10 | Focus on What You Can Control

A financial advisor can offer expertise and guidance to help you focus on actions that add value. This can lead to a better investment experience.

- Create an investment plan to fit your needs and risk tolerance.
- Structure a portfolio along the dimensions of expected returns.
- Diversify globally.
- Manage expenses, turnover, and taxes.
- Stay disciplined through market dips and swings.

Past performance is no guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Diversification does not eliminate the risk of market loss. There is no guarantee investment strategies will be successful. This information is for illustrative purposes only. See next page for additional exhibit information and important disclosures.

DISCLOSURES

Exhibit 1: In USO. Source: Dimensional, using data from Bloomberg LP. Includes primary and secondary exchange trading volume globally for equities. ETFs and funds are excluded. Daily averages were computed by calculating the trading volume of each stock daily as the closing price multiplied by shares traded that day. All such trading volume is summed up and divided by 252 as an approximate number of annual trading days.

Exhibit 2: The sample includes funds at the beginning of the 20-year period ending December 31, 2018. Each fund is evaluated relative to its respective primary prospectus benchmark as of the end of the evaluation period. Surviving funds are those with return observations for every month of the sample period. Winner funds are those that survived and whose cumulative net return over the period exceeded that of their respective primary prospectus benchmark. Loser funds are funds that did not survive the period or whose cumulative net return did not exceed that of their respective primary prospectus benchmark. Where the full series of primary prospectus benchmark returns is unavailable, funds are instead evaluated relative to the Morningstar category index assigned to the fund's category at the start of the evaluation period.

Exhibit 3: This study evaluated fund performance persistence over rolling periods from 1999 through 2018. Each year, funds are sorted within their category based on their previous five-year total return. Those ranked in the top quartile (25%) of returns are evaluated over the following five-year period. The chart shows the average percentage of top-ranked equity and fixed income funds that kept their top ranking in the subsequent period.

Source (Exhibits 2 and 3): US-domiciled open-end mutual fund data is from Morningstar. Equity fund sample includes the Morningstar historical categories: Diversified Emerging Markets, Europe Stock, Foreign Large Blend, Foreign Large Growth, Foreign Large Value, Foreign Small/Mid Blend, Foreign Small/Mid Growth, Foreign Small/Mid Value, Global Real Estate, Japan Stock, Large Blend, Large Growth, Large Value, Mid-Cap Blend, Mid-Cap Growth, Mid-Cap Value, Miscellaneous Region, Pacific/Asia ex-Japan Stock, Real Estate, Small Blend, Small Growth, Small Value, World Large Stock, and World Small/Mid Stock. Fixed income fund sample includes the Morningstar historical categories: Corporate Bond, High Yield Bond, Inflation-Protected Bond, Intermediate Government, Intermediate-Term Bond, Long Government, Muni California Intermediate, Muni California Long, Muni Massachusetts, Muni Minnesota, Muni National Intermediate, Muni National Long, Muni National Short, Muni New Jersey, Muni New York Intermediate, Muni New York Long, Muni Ohio, Muni Pennsylvania, Muni Single State Intermediate, Muni Single State Long, Muni Single State Short, Short Government, Short-Term Bond, Ultrashort Bond, and World Bond. See Dimensional's Mutual Fund Landscape 2019 for more detail. Index data provided by Bloomberg Barclays, MSCI, Russell, FTSE Fixed Income LLC, and S&P Dow Jones Indices LLC. Bloomberg Barclays data provided by Bloomberg. MSCI data© MSCI 2019, all rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. FTSE fixed income indices© 2019 FTSE Fixed Income LLC. All rights reserved. S&P data© 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Exhibit 4: In USO. US Small Cap is the CRSP 6-10 Index. US Large Cap is the S&P 500 Index. Long-Term Government Bonds is the IA SBBI US LT Govt TR USO. Treasury Bills is the IA SBBI US 30 Day TBill TR USO. US Inflation is measured as changes in the US Consumer Price Index. CRSP data is provided by the Center for Research in Security Prices, University of Chicago. S&P data© 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Long-term government bonds and Treasury bills data provided by Ibbotson Associates via Morningstar Direct. US Consumer Price Index data is provided by the US Department of Labor Bureau of Labor Statistics.

Exhibit 5: Relative price is measured by the price-to-book ratio; value stocks are those with lower price-to-book ratios. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book.
Exhibit 6: Number of holdings and countries for the S&P 500 Index and MSCI ACWI (All Country World Index) Investable Market Index (IMI) as of December 31, 2018. S&P data© 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. MSCI data© MSCI 2019, all rights reserved. International investing involves special risks, such as currency fluctuation and political instability. Investing in emerging markets may accentuate these risks.

Exhibit 7: In USD. US Large Cap is the S&P 500 Index. US Large Cap Value is the Russell 1000 Value Index. US Small Cap is the Russell 2000 Index. US Small Cap Value is the Russell 2000 Value Index. US Real Estate is the Dow Jones US Select REIT Index. International Large Cap Value is the MSCI World ex USA Value Index (gross dividends). International Small Cap Value is the MSCI World ex USA Small Cap Value Index (gross dividends). Emerging Markets is the MSCI Emerging Markets Index (gross dividends). Five-Year US Government Fixed is the Bloomberg Barclays US TIPS Index 1-5 Years. S&P and Dow Jones data© 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data© MSCI 2019, all rights reserved. Bloomberg Barclays data provided by Bloomberg. Chart is for illustrative purposes only.

HOW TO ORGANIZE YOUR FINANCIAL DOCUMENTS

Morningstar

What's your style for organizing your financial documents? Are you a procrastinator, letting your financial statements pile up on your desk for that (always elusive) day when you'll finally have enough time to put them in order? Or are you organized but simply saving too much, to the point that your file cabinet is bulging with trade confirmations for accounts you no longer hold? Maybe you're a minimalist: You get rid of absolutely all of your financial documents, with the assumption that you'll be able to retrieve what you need when you need it.

To be sure, it's getting easier to take the last tack, relying exclusively on digital resources to manage and track your financial accounts and pay bills. Not only have most financial providers made it easy to pay bills and retrieve the documents you need on demand, but mutual fund companies and brokerage firms are now also responsible for tracking investors' cost basis. As financial services firms are quick to remind us, going paperless is the green way to go, and, assuming you take some commonsense steps to protect against financial fraud, it can also be quite safe. Before you go the minimalist route, however, you must first put some basic infrastructure in place. Here are a few suggested steps.

SECURE YOUR HOME SYSTEM

Transitioning your document storage from paper to digital is a key component of getting your financial house in order. An essential first step before you switch over is ensuring the security of your in-home computer network. That means making sure you have up-to-date antivirus and antispyware software as well as firewalls and a good spam filter. A good system for periodically backing up the data on your computer is also essential.

Additionally, because you'll be saving financially sensitive documents that could be manna for identity thieves, you'll need to take steps to password-protect your computer as well as those sensitive documents. (Passwords that combine numbers and letters are the most effective.) Finally, be careful about trying to access financial information when you're away from home, and never log in to any of your financial accounts when using a public or unsecured network.

CREATE A MASTER DIRECTORY

The next step is to create a password-protected digital directory of your various accounts, including user names and passwords, and URLs as well as information about where on your computer you're storing the related documents. Not only will such a document prove invaluable for your loved ones if something should happen to you, but it will also help you manage the plethora of information for each of your accounts. This document can be the old-fashioned, pen-and-paper kind, but if that's the case, it's crucial to keep that document in a safe location—a locked, firesafe box, for example, or a safe deposit box. And no matter the format, it's important to inform a trusted loved one of your master directory and how to gain access to it.

INVESTIGATE YOUR PROVIDERS' INFORMATION SYSTEMS

The next step in organizing your financial life is to conduct a quick audit of the quality of the digital statements provided by your banks, brokerage, mutual fund companies, and any other companies with which you regularly do business. In most cases, you'll find that the digital statements provide you with exactly the same level of detail as the paper documents you received in the past. Here again, be savvy when creating passwords for your information on external providers' sites.

In addition to getting comfortable with the retrieval of your digital statements, see how long the institution will store past statements and other information on its website. Can you retrieve statements going back several years? If you expect to need supporting documentation longer than your provider will make it available, plan to save a copy of the statement on your own computer. (Be particularly attuned to this issue if a document relates to a previous year's tax return; the Internal Revenue Service can audit tax returns for up to seven years.)

Also be aware of the rules regarding cost basis. While financial providers are now required to keep track of investors' cost basis, investors are still on the hook for tracking cost basis for securities they've owned for a while. If you purchased a stock prior to 2011, a mutual fund or exchange-traded fund prior to 2012, and another type of security prior to 2013, you're responsible for keeping track of your purchase price to determine your gain or loss at the time of sale.

CREATE A LOGICAL DIGITAL FILING SYSTEM

When creating a secure home-computing environment to safely manage your sensitive financial information, you'll also want to create an intuitive organization system for your digital files. If your filing system for your paper files worked well for you in the past, there's no reason you can't duplicate it for your digital documents, too. Consider broad topic folders—'Insurance,' for example, combined with subfolders such as 'Auto Insurance.'

GET A PLAN FOR RECEIPTS

Receipts and travel-related clutter can be some of the worst desk detritus. Recycle receipts for small, everyday purchases, while scanning in receipts for items you might need to return or otherwise document the proof of purchase. Nearly all stores will honor a scanned receipt just as they would an original, and many retailers give you the option of receiving an electronic receipt in lieu of a paper one.

STOP IT AT THE SOURCE

Signing up for digital document delivery is a key way to reduce the flow of paperwork coming into your house, but that won't head it off entirely. If you're receiving unwanted flyers, catalogs, or other solicitations, call the company's number and ask to be removed from the mailing list. The Federal Trade Commission site includes details on opting out of the preapproved credit card offers that are a frequent source of noisome junk mail.

SORT THROUGH YOUR EXISTING FILES

The preceding steps will help you set up a system to stay organized in the future. But to get truly organized, you'll also need to sort through your existing files, because it's a good bet you're hanging on to far more financial documents than you actually need to. Some financial documents you can safely shred, and others you should hang on to. Certain very hard-to-replace items—including certificates of marriage, birth, death, and adoption; Social Security cards; deeds; and car titles should be stored in a safe-deposit box or an in-home fireproof box. It's also a good idea to keep a copy of estate-planning documents in your home; alert a close loved one of these documents' existence and location.

This is for informational purposes only and should not be considered tax or financial planning advice. Please consult with a financial or tax professional for advice specific to your situation.

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