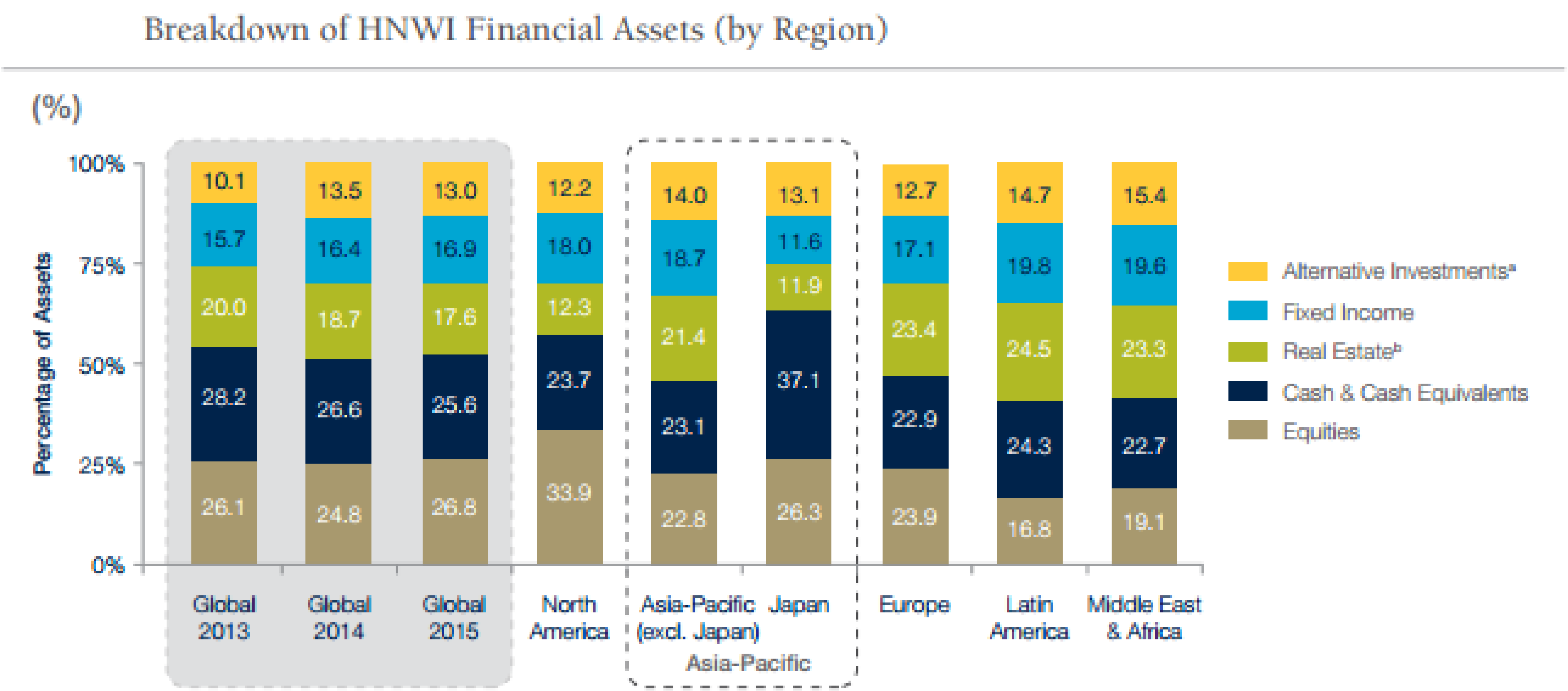
CORE PORTFOLIO MANAGEMENT

CFA Society Emirates
Investor Education Series

CFA Society Emirates

WORLD WEALTH REPORT - CAPGEMINI



1. Investing is converting cash to another asset class
2. Equity investing in the MENA region is lower other regions
3. Real Estate investing in the MENA region is higher than other regions

BUILDING INVESTORS

Financial Literacy

- Basic money and financial concepts

Financial Capability

- Building practical financial skills

Investor Education

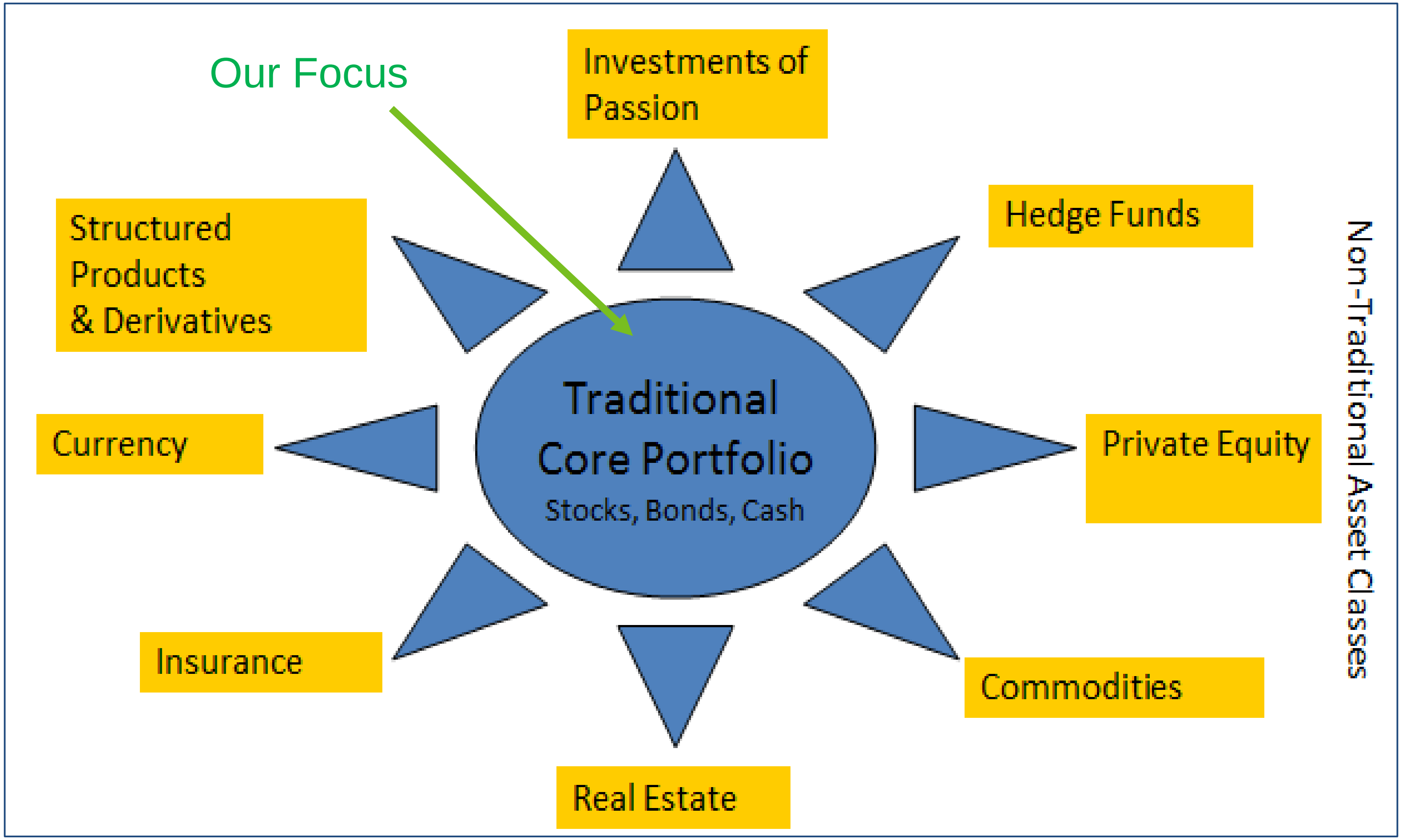
- Teaching investment topics

Investor Literacy

- Combining capital accumulation (budgeting, savings, etc.) with capital utilization (basic investor education)

STEPS TOWARD AN ACTUAL CORE PORTFOLIO

Core-Satellite Investing



STRATEGIC ASSET ALLOCATION – JACK BOGLE ON SIMPLICITY

Stick to simplicity.

- “Don’t complicate the process. Basic investing is simple—a sensible asset allocation to **stocks, bonds, and cash**.”

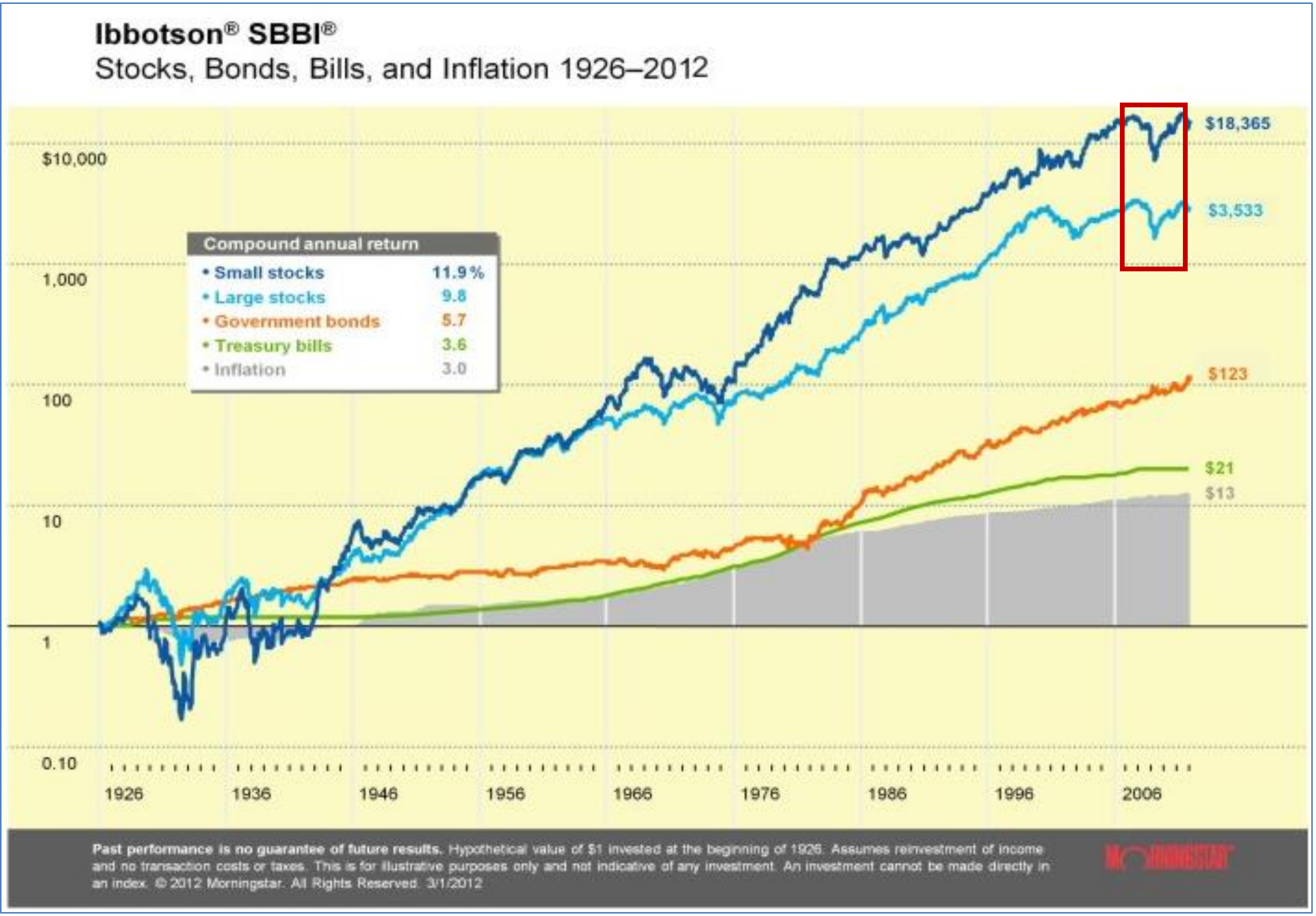
- Perhaps the most critical decision you face is getting **the proper allocation of assets** in your investment portfolio.

- **Stocks are designed to provide growth of capital and growth of income, while bonds are for conservation of capital and current income.**

- Once you get your balance right, then just hold tight, no matter how high a greedy stock market flies, nor how low a frightened market plunges.

- Change the allocation only as your investment profile changes. **The paradox is that in these times of increasing complexity, simplicity underlies the best investment strategy**.” (Bogle 2012)

GROWTH OF $1: 1926 – 2012*: USA DATA



Stocks

Bonds

T Bills

Cash

RISKS IN INVESTING: DEFINITION OF RISK

- Greater variability in market prices and cash flows can be thought of as commensurate with increased risk because an investor owning a risky asset with a highly variable price pattern faces having to sell it for a more unpredictable price than a less risky asset.

- The assumption that variability in asset returns represents risk and that premiums over what could be earned on a risk-less investment represent the price of risk is the foundation for modern finance theory.

- **It should be stressed that when analyzing investments, returns provide us with only one half the information we need. Information on the risk characteristics of investments are equally important**.

- We measure risk by calculating variance and standard deviation

HISTORICAL MEAN RETURN AND EXPECTED RETURN

1926–2012 Returns RISK

	Asset Class	Annual Returns	Standard Deviation
STOCKS	Small-cap	11.9%	33.0%
	Large-cap	**9.8%**	20.9%
BONDS	LT Corporate Bonds	5.7%	9.4%
	LT Treasury Bonds	5.5%	9.0%
CASH	Treasury Bills	3.6%	3.1%
	Inflation	3.0%	4.2%

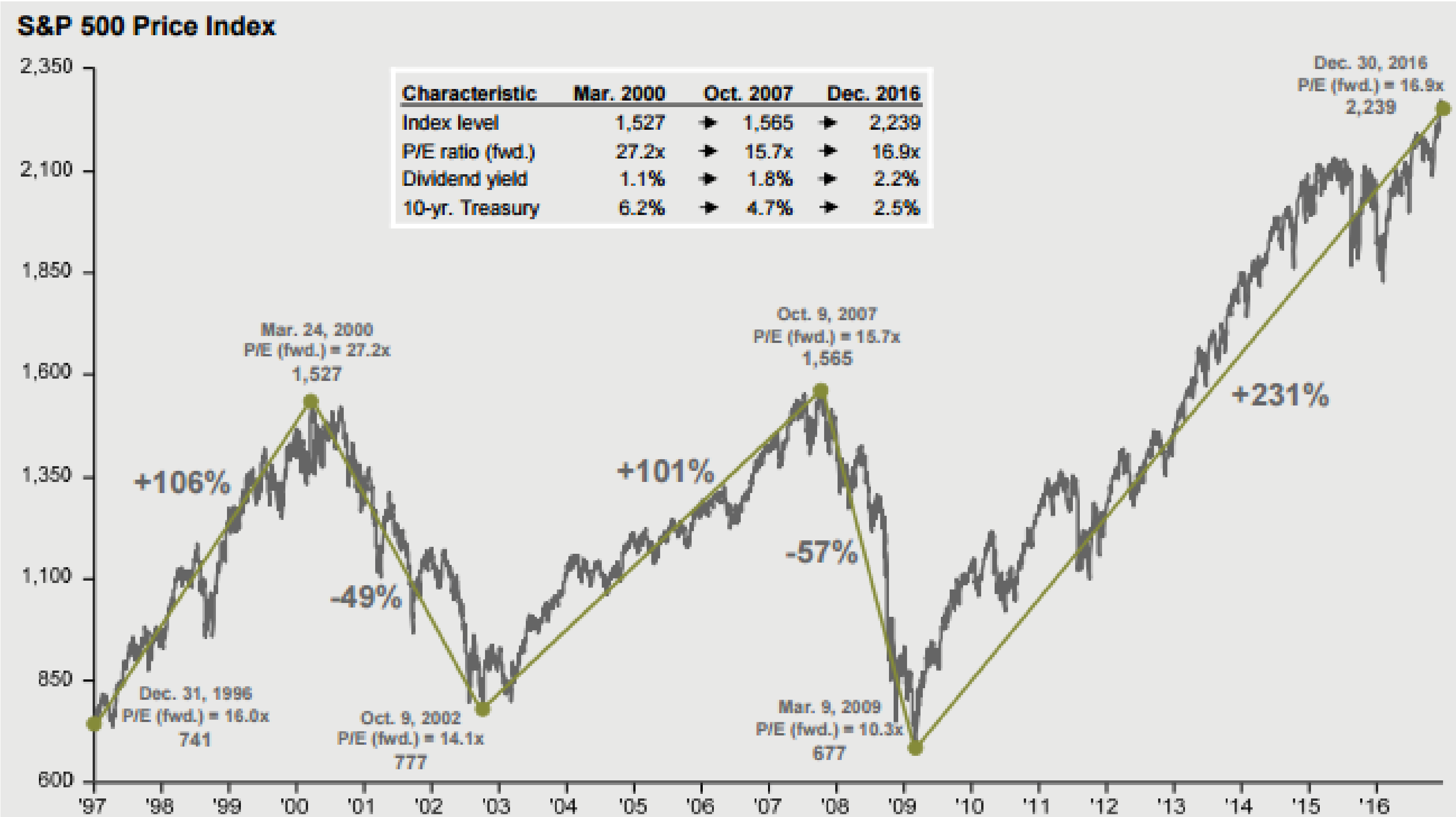
Source: 2012 Ibbotson SBBI Classic Yearbook

S&P 500

S&P 500 Index at inflection points

GTM – U.S.

Equities

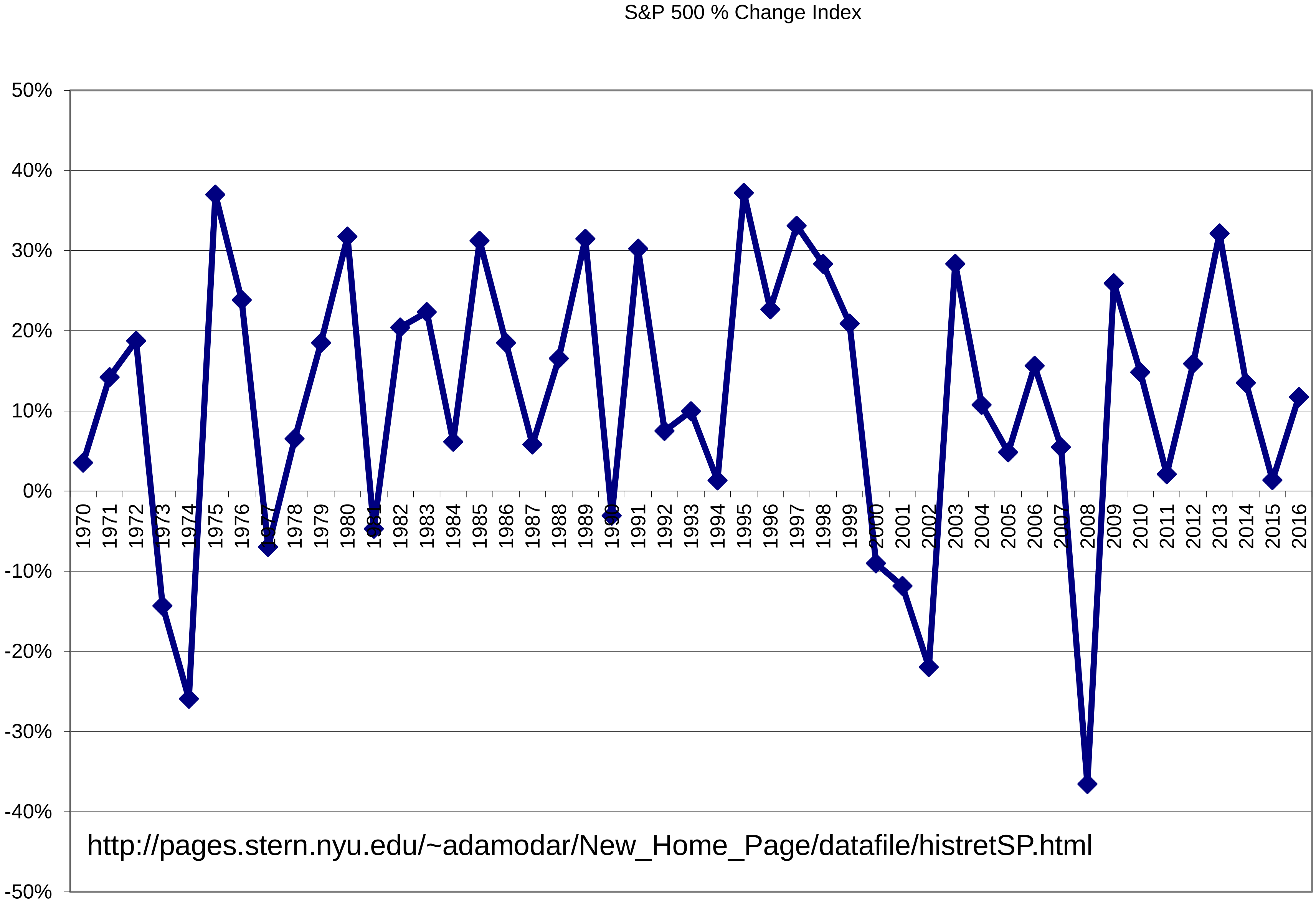


Characteristic	Mar. 2000		Oct. 2007		Dec. 2016
Index level	1,527	→	1,565	→	2,239
P/E ratio (fwd.)	27.2x	→	15.7x	→	16.9x
Dividend yield	1.1%	→	1.8%	→	2.2%
10-yr. Treasury	6.2%	→	4.7%	→	2.5%

Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price to earnings ratio is a bottom-up calculation based on the most recent S&P 500 Index price, divided by consensus estimates for earnings in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.
Guide to the Markets – U.S. Data are as of December 31, 2016.

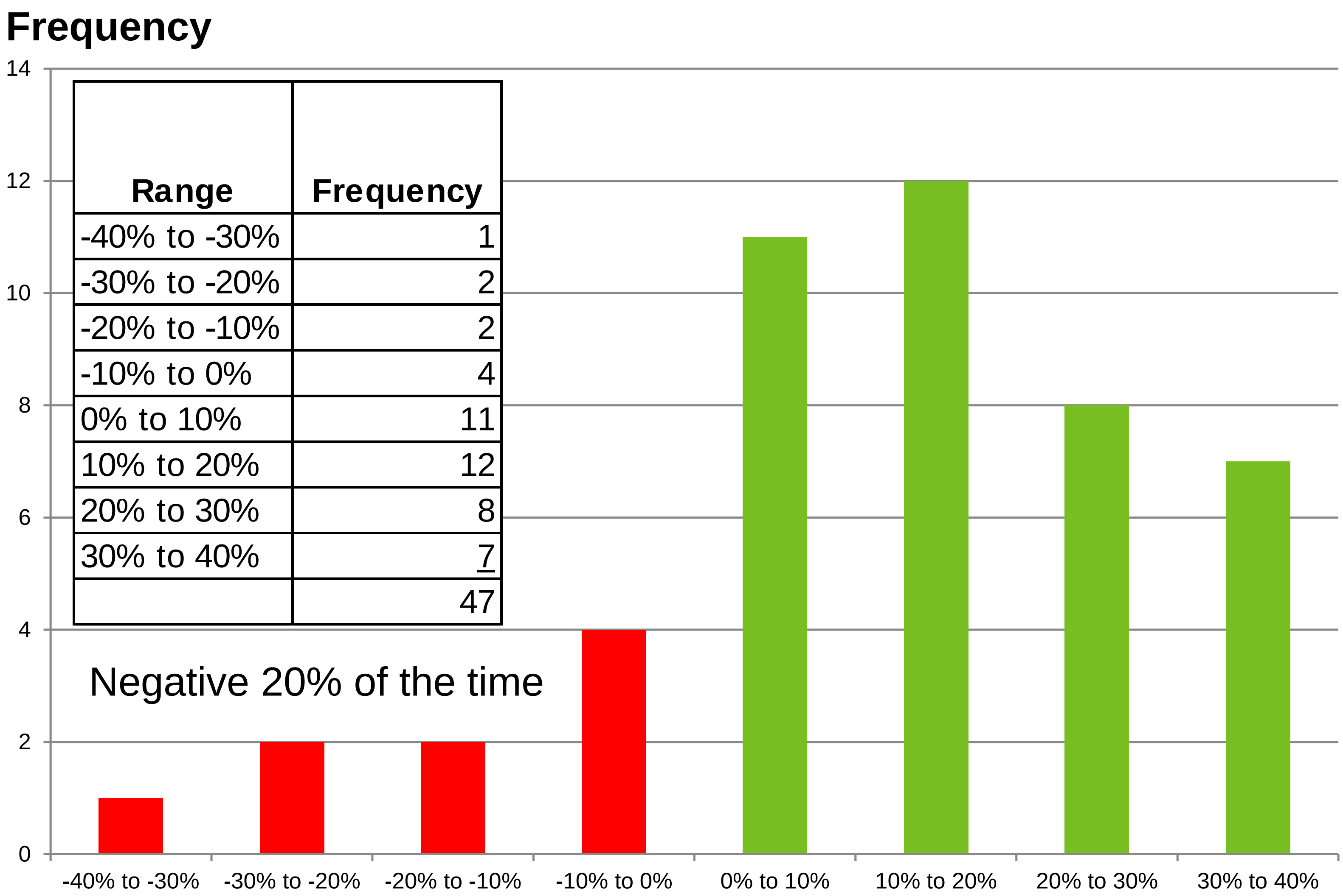
J.P.Morgan
Asset Management

S&P 500 ANNUAL RETURNS 1970–2016 (INCLUDES DIVIDENDS)



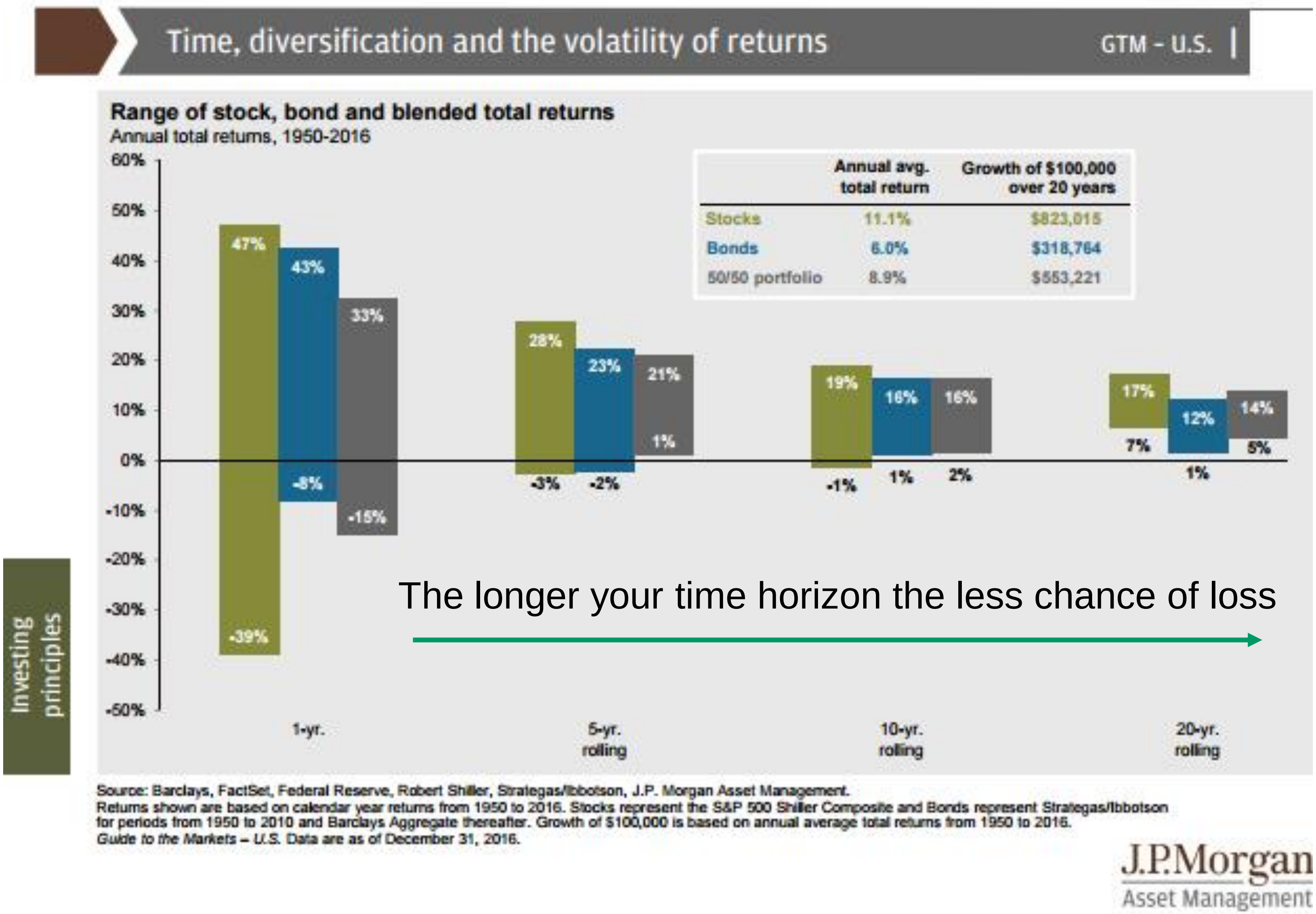
http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html

1970–2016 FREQUENCY OF S&P 500 ANNUAL RETURNS



Range	Frequency
-40% to -30%	1
-30% to -20%	2
-20% to -10%	2
-10% to 0%	4
0% to 10%	11
10% to 20%	12
20% to 30%	8
30% to 40%	7
	47

STEPS TOWARD AN ACTUAL PORTFOLIO



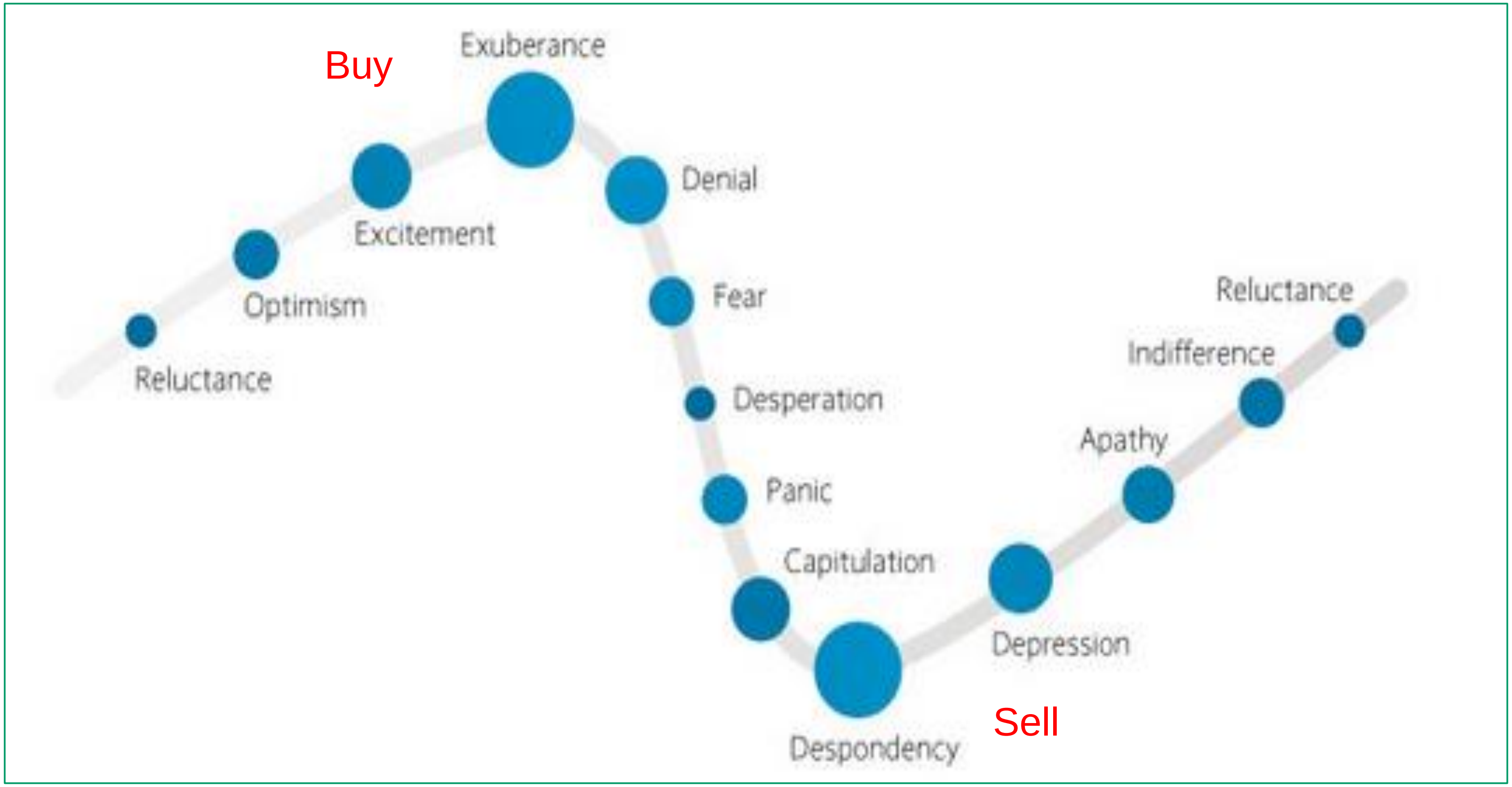
Source: (Morgan, JP 2016)

STEPS TOWARD AN ACTUAL PORTFOLIO

Six Asset Allocation Profiles: Long Term & Short Term

STEPS TOWARD AN ACTUAL PORTFOLIO

Barclays: Average Investor Emotions Can Affect Investment Returns



BENJAMIN GRAHAM ON RISK

Benjamin Graham stated that**: "every investor who owns common stocks must expect to see them fluctuate in value over the years.**

If you overestimate how well you really understand an investment, or overstate your ability to ride out a temporary plunge in prices, it doesn't matter what you own or how the market does.

Ultimately, financial risk resides not in what kinds of investments that you have, but in what kind of investor you are." (Graham 2005)

The market is a pendulum that swings between unsustainable optimism (which makes the stocks too expensive) and unjustified pessimism (which makes them too cheap). The intelligent investor is a realist who sells to optimists and buys from pessimists.

Warren Buffett echoed this advice when he said "be fearful when others are greedy and greedy when others are fearful," (Buffet 2008) and "The sillier the market's behavior, the greater the opportunity for the business-like investor."

Success comes from harnessing our emotions and understanding the things we can control and cannot control.

STEPS TOWARD AN ACTUAL PORTFOLIO

Index Fund Advisors Inc. (2014)

STEPS TOWARD AN ACTUAL PORTFOLIO

Charles Ellis, in his article Three Ways to Succeed as an Investor, outlines three approaches of investing (Ellis 2001):

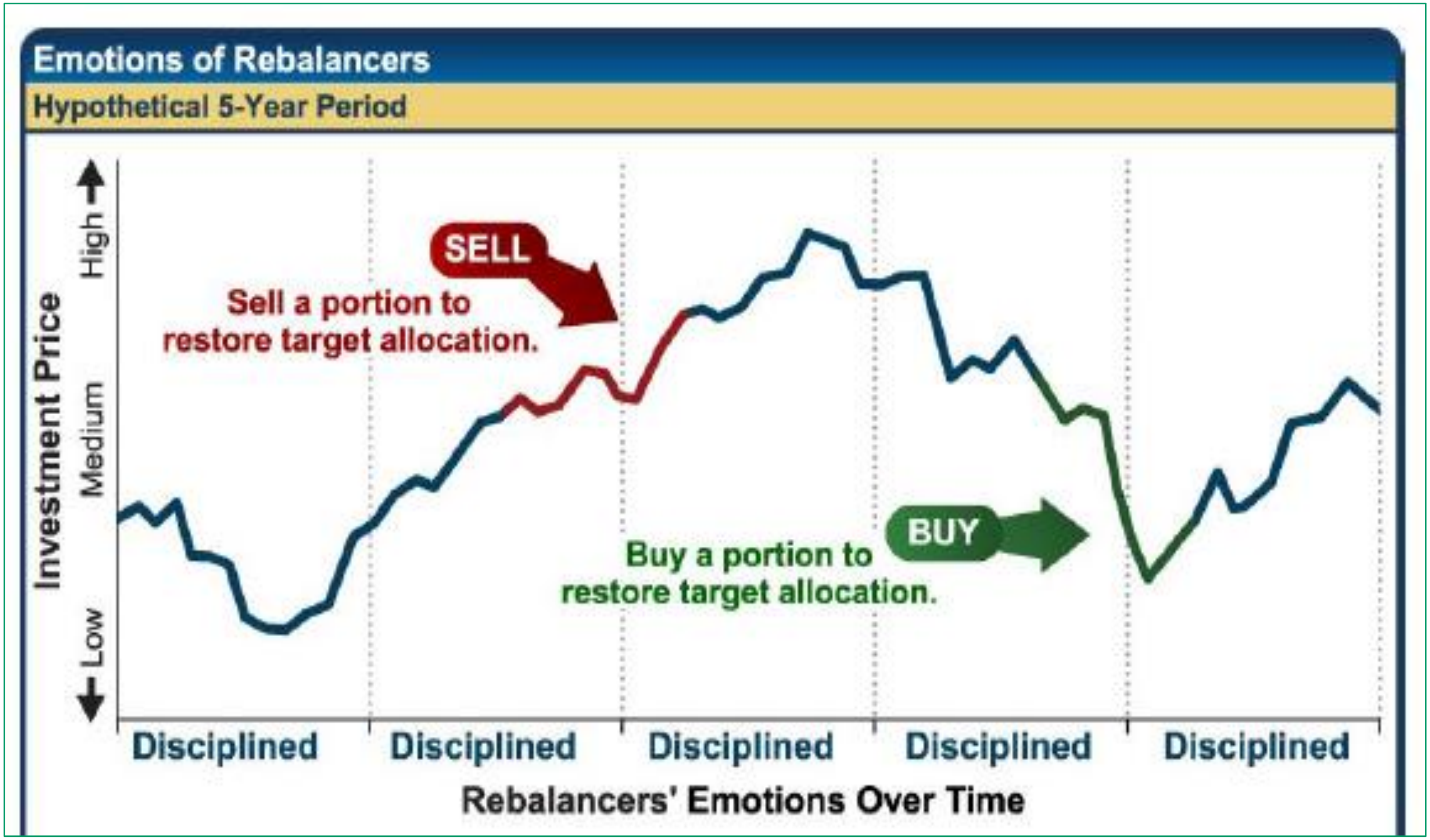
1. *The Intellectually Difficult Approach*
2. *The Physically Difficult Approach*
3. *The Psychologically Difficult Approach*

Intellectually difficult investing is pursued by those who have a deep and profound understanding of the true nature of investing, see the future more clearly, and take long-term positions that turn out to be remarkably successful.

Most of the crowd is deeply involved in the physically difficult way of beating the market. In every way they can, they put enormous energy into trying to beat the market by outworking the competition. What they don't seem to recognize is that so is almost everyone else.

Being incapable of doing the intellectually difficult, and reluctant about the physically difficult, I have set about the emotionally difficult approach to investing. **This straightforward, untiring approach is simply to work out the long-term investment policy that's truly right for you and your particular circumstances and is realistic given the history of the capital markets, commit to it, and - here is the emotionally difficult part – hold on.** (Ellis 1998)

STEPS TOWARD AN ACTUAL PORTFOLIO



Index Fund Advisors Inc. (2014)

STEPS TOWARD AN ACTUAL PORTFOLIO: WARREN BUFFET

You don't need to be an expert in order to achieve satisfactory investment returns. But if you aren't, you must recognize your limitations and follow a course certain to work reasonably well. **Keep things simple and don't swing for the fences.**

It's vital, however, that we recognize the perimeter of our "circle of competence" and stay well inside of it. Even then, we will make some mistakes, both with stocks and businesses. But they will not be the disasters that occur, for example, when a long-rising market induces purchases that are based on anticipated price behavior and a desire to be where the action is.

Most investors, of course, have not made the study of business prospects a priority in their lives**. If wise, they will conclude that they do not know enough about specific businesses to predict their future earning power.**

STEPS TOWARD AN ACTUAL PORTFOLIO: WARREN BUFFET

I have good news for these non-professionals: The typical investor doesn't need this skill.

In aggregate, American business has done wonderfully over time and will continue to do so (though, most assuredly, in unpredictable fits and starts). In the 20th century, the Dow Jones Industrial Index advanced from 66 to 11,497, paying a rising stream of dividends to boot.

The 21st century will witness further gains, almost certain to be substantial.

The goal of the nonprofessional should not be to pick winners— neither he nor his "helpers" can do that —but should rather be to own a cross-section of businesses that in aggregate are bound to do well. A low-cost S&P 500 index fund will achieve this goal.

STEPS TOWARD AN ACTUAL PORTFOLIO: WARREN BUFFET

That's the "what" of investing for the nonprofessional. The "when" is also important. The main danger is that the timid or beginning investor will enter the market at a time of extreme exuberance and then become disillusioned when paper losses occur.

The antidote to that kind of mistiming is for an investor to accumulate shares over a long period and never sell when the news is bad and stocks are well off their highs.

Following those rules, the "know-nothing" investor who both diversifies and keeps his costs minimal is virtually certain to get satisfactory results. **Indeed, the unsophisticated investor who is realistic about his shortcomings is likely to obtain better long-term results than the knowledgeable professional who is blind to even a single weakness.**

- It needs to be pointed out clearly that the preceding advice from Buffett comes under the category of “do what I say, not what I do.”

ABU DHABI INVESTMENT AUTHORITY (ADIA) EXTRACTS FROM ANNUAL REVIEW

CFA Society Emirates

ADIA

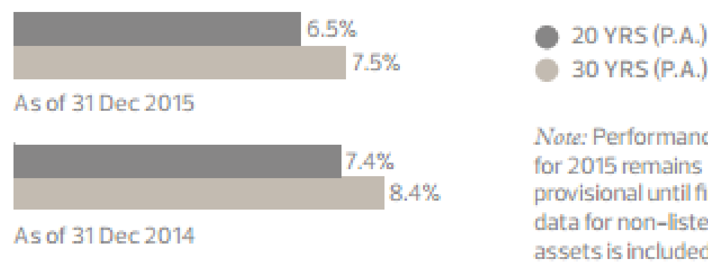
40

years' experience of investing in global markets

Investment Performance

In U.S. Dollar terms, the 20-year and 30-year annualised rates of return for the ADIA portfolio were 6.5% and 7.5% respectively, as of 31 December 2015. Performance is measured based on underlying audited financial data and calculated on a time-weighted basis.

Annualised Returns %



Note: Performance for 2015 remains provisional until final data for non-listed assets is included.

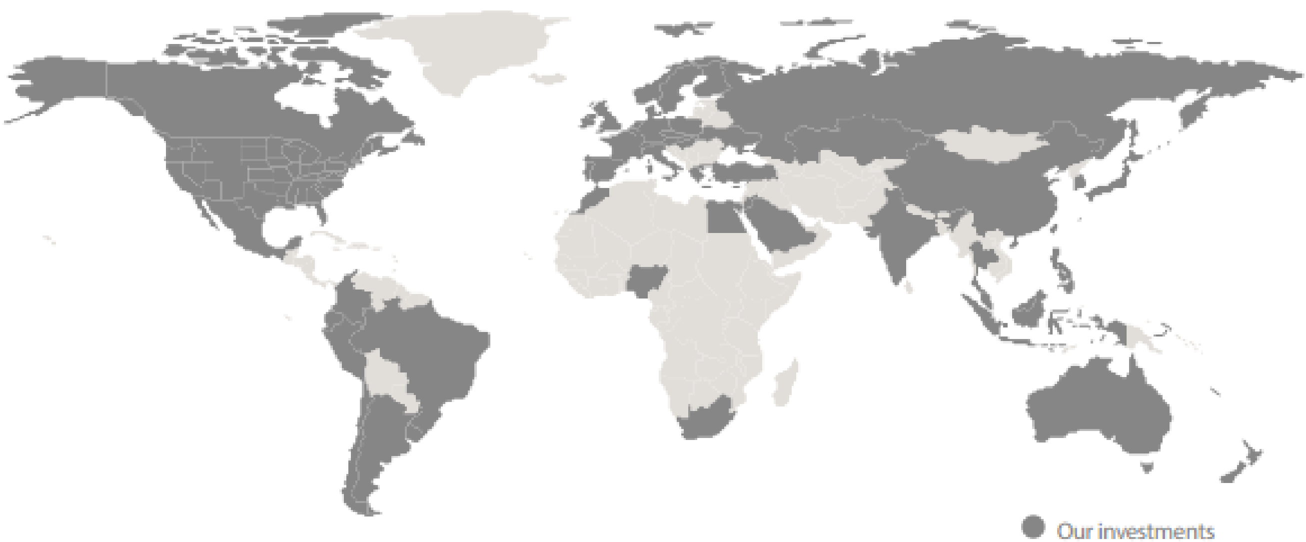
60%

of ADIA's assets are managed by external fund managers whose activities are subject to careful oversight by internal ADIA teams

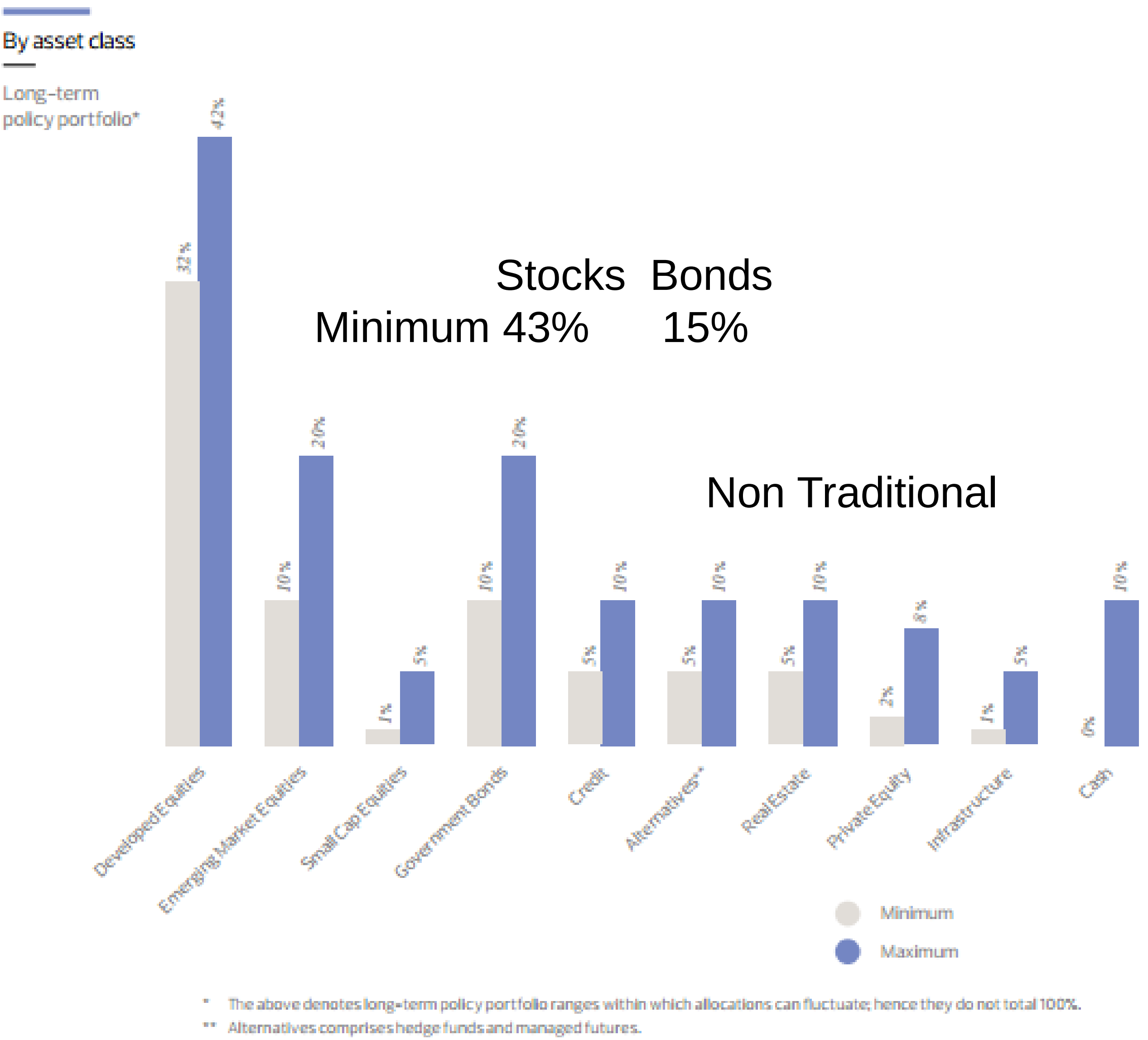
50%

of ADIA's assets are invested in index-replicating strategies

Where we invest



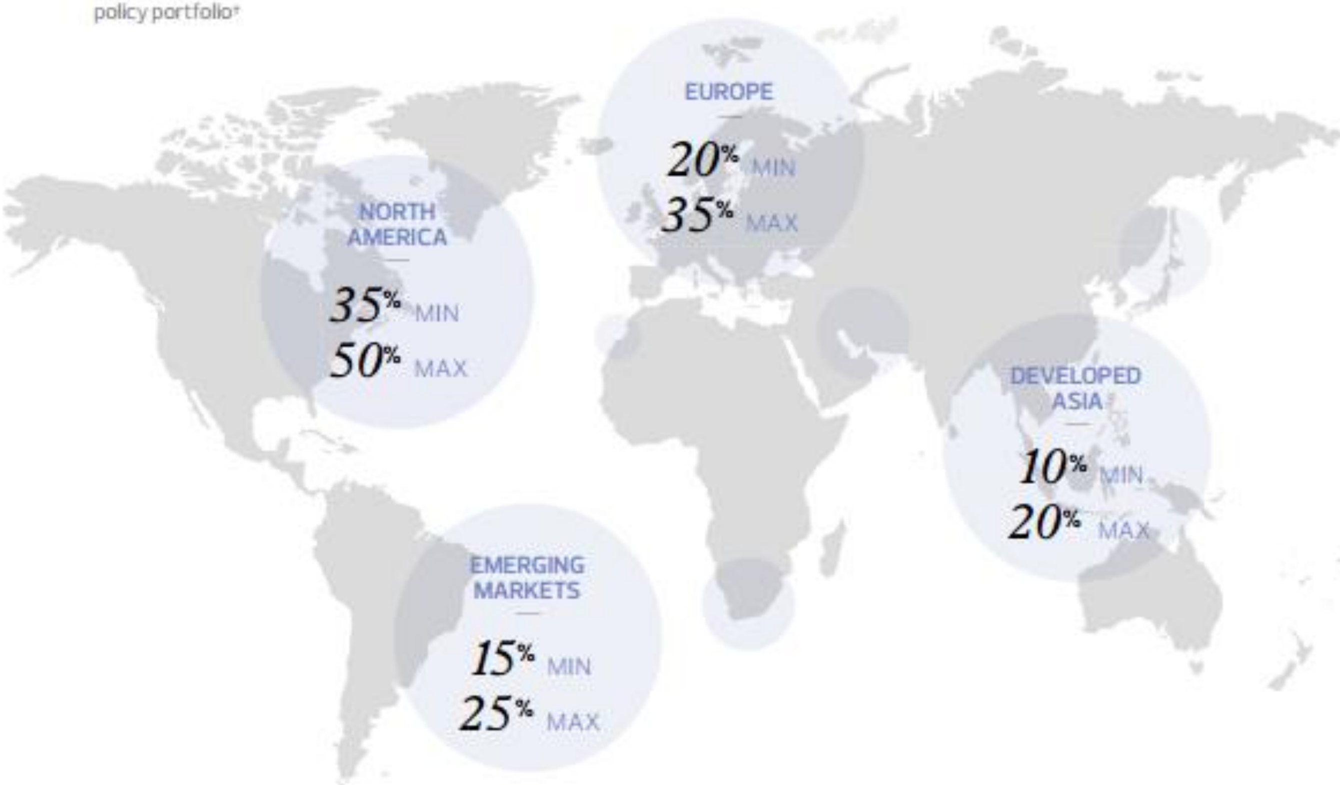
ADIA


By asset class
Long-term policy portfolio*
Stocks Bonds Cash
Minimum 43% 15% 0%
Non Traditional
32% 42%
10% 20%
1% 5%
10% 20%
5% 10%
5% 10%
5% 10%
2% 8%
1% 5%
0% 10%
Developed Equities
Emerging Market Equities
Small Cap Equities
Government Bonds
Credit
Alternatives**
Real Estate
Private Equity
Infrastructure
Cash
Minimum
Maximum
* The above denotes long-term policy portfolio ranges within which allocations can fluctuate; hence they do not total 100%.
** Alternatives comprises hedge funds and managed futures.

ADIA

By region

Long-term policy portfolio†



† ADIA, as a matter of practice, does not invest in the UAE.

EQUITIES – GLOBAL FRAMEWORK

MSCI ACWI & FRONTIER MARKETS INDEX

MSCI ACWI INDEX | MSCI EMERGING & FRONTIER MARKETS INDEX

MSCI WORLD INDEX			MSCI EMERGING MARKETS INDEX			MSCI FRONTIER MARKETS INDEX				
DEVELOPED MARKETS			EMERGING MARKETS			FRONTIER MARKETS				
Americas	Europe & Middle East	Pacific	Americas	Europe, Middle East & Africa	Asia	Americas	Europe & CIS	Africa	Middle East	Asia
Canada	Austria	Australia	Brazil	Czech Republic	China	Argentina	Croatia	Kenya	Bahrain	Bangladesh
United States	Belgium	Hong Kong	Chile	Egypt	India		Estonia	Mauritius	Jordan	Pakistan[3]
	Denmark	Japan	Colombia	Greece	Indonesia		Lithuania	Morocco	Kuwait	Sri Lanka
	Finland	New Zealand	Mexico	Hungary	Korea		Kazakhstan	Nigeria	Lebanon	Vietnam
	France	Singapore	Peru	Poland	Malaysia		Romania	Tunisia	Oman	
	Germany			Qatar	Philippines		Serbia	WAEMU[2]		
	Ireland			Russia	Taiwan		Slovenia			
	Israel			South Africa	Thailand					
	Italy			Turkey						
	Netherlands			United Arab Emirates						
	Norway									
	Portugal									
	Spain									
	Sweden									
	Switzerland									
	United Kingdom									

MSCI STANDALONE MARKET INDEXES[1]

EM Americas	EM Europe, Middle East & Africa	EM Asia	FM Americas	FM Europe & CIS	FM Africa	FM Middle East	FM Asia
	Saudi Arabia		Jamaica	Bosnia Herzegovina	Botswana	Palestine	
			Trinidad & Tobago	Bulgaria	Ghana		
				Ukraine	Zimbabwe		

Need to diversify outside of local markets

ISHARES MSCI ACWI

MSCI ACWI INDEX

MSCI WORLD INDEX | MSCI EMERGING MARKETS INDEX

DEVELOPED MARKETS | EMERGING MARKETS

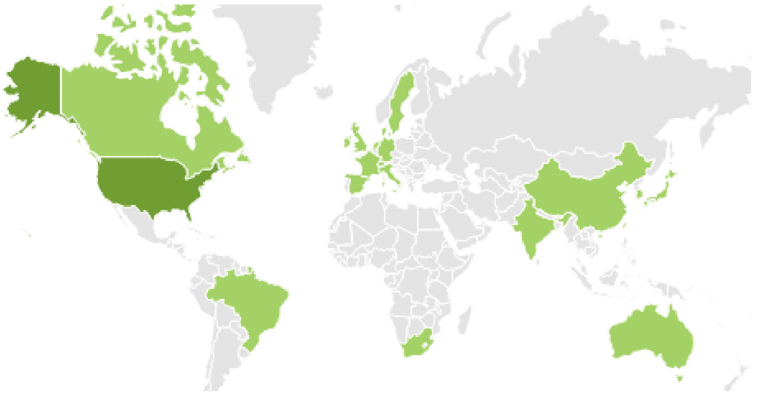
Geography | Sector

as of 02-Feb-2017

% of Market Value

Type	Fund
United States	51.66
Japan	7.82
United Kingdom	5.15
Canada	3.30
China	3.21
France	3.16
Switzerland	3.16
Germany	3.06
Australia	2.55
Netherlands	1.64
Korea (South)	1.62
Taiwan	1.30

Show All



https://www.ishares.com/us/products/239600/ishares-msci-acwi-etf

ISHARES MSCI WORLD

MSCI WORLD INDEX

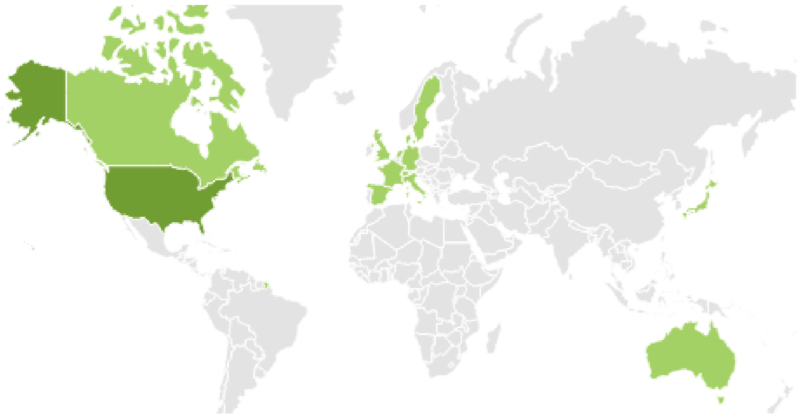
DEVELOPED MARKETS

as of 02-Feb-2017

% of Market Value

Type	Fund
United States	59.76
Japan	8.81
United Kingdom	6.56
Canada	3.67
France	3.60
Germany	3.40
Switzerland	3.17
Australia	2.78
Netherlands	1.22
Hong Kong	1.22
Spain	1.17
Sweden	1.09

Show All



https://www.ishares.com/us/products/239696/ishares-msci-world-etf